

HEALTH & SAFETY PLAN



DESERT SERVICES

The Ultimate in Construction Services

CHEMICAL LIST & SAFETY DATA SHEETS

Updated: April 2025



Chemical List

TRADE NAME	SUPPLIER	PAGE	HYPERLINK
ABC Fire Extinguisher	Buckeye Fire	6	https://buckeyef.com/support/safety-data-sheets/dry-chemical-agents/
AC Flush Solvent	Dura II	17	https://www.4s.com/media/3661/69991_sds_en.pdf
Air Brake Anti-Freeze	CRC Industries	26	https://www.crcindustries.com/media/msdsen/msds_en-1003822.pdf
Air Filter Cleaner	Maxima Racing Oils	36	https://www.lustyindustries.com/documents/Tech%20Support/Maxima%20SDS/Air%20Filter%20Cleaner%20SDS.pdf
Ammonia	Sigma-Aldrich	44	https://www.sigmaaldrich.com/US/en/sds/aldrich/294993?mscockid=2f2b3d69ac8d6adc15b32fc6adf26b4f
Armor All- Wheel & Tire Cleaner	Energizer Holdings	58	https://labelsd.com/images/user_uploads/Armor%20All%20Wheel%20Tire%20SDS%208-5-21.pdf
Assembly Lube- Engine	CRC Industries	74	https://www.crcindustries.com/media/msdsen/msds_en-1007914.pdf
Batter Terminal Protector	CRC Industries	82	https://www.crcindustries.com/media/msdsen/default/msds_en-1003657.pdf
Battery Cleaner	CRC Industries	97	https://www.crcindustries.com/media/msdsen/msds_en-1003435.pdf
Bertz Paint	Sunburst Coating	106	https://www.bertspaint.com/sds/
Brake Fluid	Castrol	108	https://msdspds.castrol.com/usssds/amersdsf.nsf/Files/EBOC275F10B22BE78025856F0052B553/\$File/2611116.pdf
Cabana Spray	Cabana Spray 1064	118	https://portaserve.com/wp-content/uploads/2018/08/Cabana-Spray.pdf

TRADE NAME	SUPPLIER	PAGE	HYPERLINK
CloroxPro Germicidal Bleach	The Clorox Company	125	https://www.thecloroxcompany.com/wp-content/uploads/2021/11/USA002018-CloroxPro-Clorox-Germicidal-Bleach-Concentrated_1.pdf
Coolant	Chevron	133	https://cglapps.chevron.com/sdspds/SDSDetailPage.aspx?docDataId=425491&docFormat=PDF
Cream Hardner	3M Company	140	https://multimedia.3m.com/mws/mediawebs/er?mwslid=SSSSuUn_zu8l00xMY_9PY_xlv7Ok17zHvu9lxtd7SSSSSS--
Dielectric Grease	CRC Industries	152	https://www.crcindustries.com/media/msds_en-1003197.pdf
Diesel- Auto	Chevron	163	https://cglapps.chevron.com/sdspds/SDSDetailPage.aspx?docDataId=463591&docFormat=PDF
Diesel- Red Dye #2	Marathon Petroleum	172	https://www.marathonpetroleum.com/content/documents/Operations/MPC SDS Sheets/Marathon_Petroleum_No_2_Diesel/Marathon_Petroleum_No_2_Diesel.pdf
Evaporator Heater Cleaner	International Lubricants Inc	183	https://sds.fmpco.com/images/fmp_msds/96030_Kool-It_Evaporator_and_Heater_Foam_Cleaner.pdf
Fiberglass Resin	ITW Evercoat	202	https://sds.chemtel.net/docs/Asbury%20Carbons%20Inc-0001931/Site%20SDS/Fiberglass%20Resin.pdf
Flex Seal	Swift Response	212	https://images.thdstatic.com/catalog/pdfimages/e9/e9ab6f2c-ff43-49f9-a1f3-29bb389d24dd.pdf
Freon 134A	National Refrigerant	238	https://www.gohcl.com/assets/59/aa/59aa4dbf-c28a-4ead-896b-4a56d2be2115/19321_MSDS.pdf
Gasoline- All Grades	Chevron	247	https://cglapps.chevron.com/msds/pdfs/SDSDetailPage.aspx?docDataId=680684&docFormat=PDF
Glass Cleaner-Spay-A-Way	SC Johnson & Son	262	https://www.scjohnson.com/-/media/sc-johnson/our-products/sds/us-english/home-cleaning/350000014153-windex-cleaner-original-01-23-2018-1-3-en.pdf
Graffix- Graffiti Remover	CRC Industries	268	https://www.crcindustries.com/media/msds_en-1003449.pdf
Gunk- Engine Cleaner	Radiator Specialty Co.	279	https://www.msdsdigital.com/system/files/S-GUNK%20ENGINE%20CLEANER%20%26%20D_EGREASER.pdf
Head Gasket Sealant	ITW Permatex Inc	286	https://www.permatex.com/wp-content/uploads/sds/20539.pdf
In-Cide Disinfectant	Lucas Products Corporation	300	https://lucasproducts.com/wp-content/uploads/LucasCide-Blue-MSDS.pdf

TRADE NAME	SUPPLIER	PAGE	HYPERLINK
JB Weld	JB Weld LLC	302	http://weblink.carquest.com/msds/JB/JB%2050112.pdf
Kem-Tek 2 pH Pool Muriatic Acid	KIK Pool Additives Inc	315	https://images.thdstatic.com/catalog/pdfimages/9d/9dbfee0b-f834-4fa4-a3ec-0daf313d64dc.pdf
Kleen up-Pro Herbicide	Loveland Products Inc	323	https://www.grasshopergardens.com/wp-content/uploads/2020/02/Kleen_Up_Pro SDS.pdf
Loctite	Henkel Corporation	329	https://dm.henkel-dam.com/is/content/henkel/sds-loctite-us-en-000000000001182050-000000587534-msds-ut-us-en
Loctite- Tite Foam Gaps & Cracks	Henkel	335	https://www.buildsite.com/pdf/pl/Loctite-TITE-FOAM-Insulating-Foam-Sealant-SDS-1868635.PDF
Motor Oil	49 North Lubricants	341	https://www.49northlubricants.com/wp-content/uploads/2020/02/63025-WHMS-SDS.pdf
Nickel Anti-Seize	CRC Industries	345	https://www.crcindustries.com/media/msds_en/msds_en-1007946.pdf
Non-Para Urinal Blocks	VisionCorps	354	https://www.grainger.com/sds/pdf/174976.pdf?msocid=2f2b3d69ac8d6adc15b32fc6adf26bf
Nozzle Gel	Radnor	355	https://www.airgas.com/msds/004130.pdf
Oven Cleaner	Ecolab Inc	367	https://assets.pim.ecolab.com/media/Original/10000/US-Z8-912670-11-SPECIALTY%20OVEN%20CLEANER.PDF
PB Blaster	B'laster Corporation	378	https://blasterproducts.com/images/PB-PENETRATING-GREASE-SDS-2017.pdf
PEAK DEF Fluid	Peak Lubricants	390	https://go.lupinsys.com/peaklubricants/harms/pm/88b0d79f731031f9075c52939889d8c-published/attachment/sds.pdf
Power Steering Stop Leak	Prestone Products	396	https://fr.prestone.com/wp-content/uploads/2021/04/SDS590-PSFSL.pdf
Propane	Airgas USA	402	https://www.airgas.com/msds/001045.pdf
Purell Advanced Gel	GOJO Industries	414	https://www.gojo.com/en/SDS
PVC Cleaner	William H. Harvey Company	426	https://www.oatey.com/products/harvey-pipe-cleaner-161657183
PVC Cement	Oatey Co.	439	https://www.oatey.com/products/oatey-all-weather-medium-pvc-cement-1687961061
PVC Primer	Oatey Co.	449	https://www.oatey.com/products/oatey-purple-primer-236049618
Quickcrete-Concrete Mix	The QUICKCRETE Companies	462	https://www.quikrete.com/pdfs/sds-c1-concretes.pdf
Radiator Anti-Rust	CRC Industries	472	https://www.whatsinproducts.com/files/brands_pdf/1339521034.pdf

TRADE NAME	SUPPLIER	PAGE	HYPERLINK
Radiator Flush	Prestone Products	478	https://beta.lakeland.edu/AboutUs/MSDS/PDFs/3266/Super%20Flush%20Radiator%20Flush%20(Prestone)%2010-21-16.pdf
Sea Foam Spray	Sea Foam Sales Company	483	https://seafoamworks.com/sds/
Spray-A-Way Glass Cleaner	PLZ Corp.	492	https://www.sprayawayinc.com/sites/all/themes/theme687/msds/sw050.pdf
Starting Fluid-Jump Start	CRC Industries	498	https://www.crcindustries.com/media/msdseen/msds_en-1003843.pdf
STF 6K FOM- Toilet Deodorizer	Triple S (SSS)	508	https://triple-s.com/sites/default/files/documents/05006_SS_Foam_Disinfectant_Cleaner_Deodorizer SDS.pdf
Tire Sealant- Fix-A-Flat	ITW Global Tire Repair	519	https://www.fixaflat.com/pages/safety-data-sheets
Transmission Fluid- ATF	Valvoline LLC	528	https://ehs.ucf.edu/wp-content/uploads/sites/3/2019/11/24-Valvoline-Automatic-Trans-Fluid-DEX-III_MERC.pdf
UV Dye- R134A	ID Quest Operating	541	https://labelssds.com/images/user_uploads/ID_Q%20AC%20Refrig%20UV%20Dye%20MSDS%205-24-11.pdf
Waxie Clean Touch Handwash	Waxie's Enterprises LLC	548	https://shop.waxie.com/mStorefront/itemDetail.do?item-id=310539&warehouse-id=37
Waxie Green Cleaner/ Degreaser	Waxie's Enterprises LLC	566	https://shop.waxie.com/mStorefront/itemDetail.do?item-id=228202&warehouse-id=37
WD-40	WD-40 Company	586	https://files.wd40.com/pdf/sds/mup/wd-40-multi-use-product-aerosol-low-voc-sds-us-ghs.pdf
Zep- Air & Fabric Odor Eliminator	Zep Inc.	591	https://zsds3.zepinc.com/ehswww/zep/result/direct_link.jsp?P_LANGU=E&P_SYS=2&P_SSN=11337&C001=MSDS&C002=US&C003=E&C013=ZUAIR128&C123=SDS*
Zep- Multipurpose Cleaner/Degreaser	Zep Inc.	602	https://zsds3.zepinc.com/ehswww/zep/result/direct_link.jsp?P_LANGU=E&P_SYS=2&P_SSN=11337&C001=MSDS&C002=US&C003=E&C013=ZUALL32&C123=SDS*
50:1 Fuel Mix	Calumet Packaging	613	https://fsd1-sc.safeschoolssds.com/document/view/70e1ab2a-d7a6-4756-ae9d-a02935cba892/ab12e056-5830-4c34-9a82-870d8abf04ea/Tru-Fuel%2050:1%20Mix

Updated: April 2025



Safety Data Sheet

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2024 and GHS Rev 07

Date of issue: 10/29/2024

Revised on 10/29/2024

1 Identification

Product Identifier

Trade Name: ABC Dry Chemical Fire Extinguishant

Relevant identified uses of the substance or mixture and uses advised against:

Product Description: No further relevant information available.

Details of the Supplier of the Safety Data Sheet:

Manufacturer/Supplier:

Buckeye Fire Equipment Company
110 Kings Road
Kings Mountain, NC 28086
P: 704-739-7415
www.buckeyefire.com
bfec@buckeyef.com

Emergency telephone number:

CHEMTRIC, 24 hours

Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1-703-527-3887 (collect calls accepted)

2 Hazard(s) Identification

Classification of the substance or mixture:



Gas cylinder

Gases under pressure - Compressed gas H280 Contains gas under pressure; may explode if heated.

Eye irritation 2B

H320 Causes eye irritation.

Label elements:

Hazard pictograms:



Signal word: Warning

Hazard-determining components of labeling:

Ammonium phosphate monobasic

Hazard statements:

H280 Contains gas under pressure; may explode if heated.

H320 Causes eye irritation.

Precautionary statements:

P264 Wash thoroughly after handling.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

P410+P403 Protect from sunlight. Store in a well-ventilated place.

Unknown acute toxicity:

This value refers to knowledge of known, established toxicological or ecotoxicological values.

8 % of the mixture consists of component(s) of unknown toxicity.

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Safety Data Sheet

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2024 and GHS Rev 07

Date of issue: 10/29/2024

Revised on 10/29/2024

Trade Name: ABC Dry Chemical Fire Extinguisher

Information pertaining to particular dangers for man and environment:

Classification system:

NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

NFPA ratings (scale 0 - 4)



Health = 1
Fire = 0
Reactivity = 0

HMIS-ratings (scale 0 - 4)

HEALTH	1	Health = 1
FIRE	0	Fire = 0
REACTIVITY	0	Physical Hazard = 0

Hazard(s) not otherwise classified (HNOC): None known

Classification according to (d)(1)(ii) of § 1910.1200

The SDS issuer does not object to the classifications provided by importers or manufacturers of precursor products.

Hazards not otherwise classified

There are no adverse physical or health effects known that are not covered by the hazard classes of the Hazard Communications Standard.

3 Composition/Information on Ingredients

Chemical characterization: Substance

Description:

Mixture of substances listed with non-hazardous additions and/or components that are less than listing threshold. All non-hazardous, components listed under threshold, and listed component total 100%.

Dangerous Components:		
CAS: 7722-76-1	Ammonium phosphate monobasic Skin irritation 2, H315; Specific target organ toxicity (single exposure) 3, H335; Eye irritation 2B, H320	85%
CAS: 7727-43-7 RTECS: CR 0600000	barium sulphate, natural	8%
CAS: 12001-26-2	Mica	<3%
CAS: 112926-00-8 RTECS: RTECS: VV7	Precipitated silica gel (Silica-Amorphous)	<3%
CAS: 301-10-0	stannous caprylate	<0.3%
CAS: 63148-57-2	Poly(methylhydrosiloxane)	<0.1%
CAS: 6358-31-2	Luna Yellow Acute toxicity - oral 4, H302; Skin irritation 2, H315; Eye irritation 2A, H319	<0.1%

Additional information:

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

4 First-Aid Measures

Description of first aid measures

General information: If symptoms persist, call a physician.

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OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2024 and GHS Rev 07

Date of issue: 10/29/2024

Revised on 10/29/2024

Trade Name: ABC Dry Chemical Fire Extinguisher

After inhalation: Move victim to fresh air. If irritation develops or persists, seek medical attention.

After skin contact:

Wash with plenty of soap and water. If irritation develops or persists, seek medical attention.

After eye contact:

Flush eyes with water until pain-free. If irritation develops or persists, seek medical attention.

After swallowing:

If victim is conscious and alert, give 2-3 glasses of water to drink. Do not induce vomiting. If vomiting occurs and the victim is conscious, give additional water to further dilute the chemical. Prevent aspiration of swallowed product by laying victim on side with head lower than their waist. Seek medical attention. Do not leave victim unattended.

Most important symptoms and effects, both acute and delayed: No further relevant information available.

Indication of any immediate medical attention and special treatment needed: Treat symptomatically.

5 Fire-Fighting Measures

Extinguishing media

Suitable extinguishing agents:

This product is an extinguishing agent. It is nonflammable and noncombustible.

For safety reasons unsuitable extinguishing agents: No further relevant information.

Special hazards arising from the substance or mixture:

This product may decompose in fire and release oxides of carbon, potassium, and nitrogen (Refer to Section X).

Advice for firefighters

Special protective equipment for firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

In case of accidental release, use the appropriate respiratory protection. Clean up the product using a vacuum or wet sweep and shovel to minimize the generation of dust. Bag or drum the product for disposal. If the product is used and/or contaminated, use personal protective equipment and containment means that are appropriate for the composition of the mixture. Product should be prevented from entering waterways.

Environmental precautions: No special measures required.

Methods and material for containment and cleaning up:

Dispose of contaminated material as waste according to section 13.

Ensure adequate ventilation.

Dispose of the collected material according to regulations.

PAC-1:

7722-76-1	Ammonium phosphate monobasic	17 mg/m ³
7727-43-7	barium sulphate, natural	15 mg/m ³
301-10-0	stannous caprylate	0.68 mg/m ³
12001-26-2	Mica	9 mg/m ³
63148-57-2	Poly(methylhydrosiloxane)	30 mg/m ³
112926-00-8	Precipitated silica gel (Silica-Amorphous)	18 mg/m ³

PAC-2:

7722-76-1	Ammonium phosphate monobasic	190 mg/m ³
7727-43-7	barium sulphate, natural	170 mg/m ³

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Trade Name: ABC Dry Chemical Fire Extinguisher

301-10-0	stannous caprylate	110 mg/m ³
12001-26-2	Mica	99 mg/m ³
63148-57-2	Poly(methylhydrosiloxane)	330 mg/m ³
112926-00-8	Precipitated silica gel (Silica-Amorphous)	200 mg/m ³

PAC-3:

7722-76-1	Ammonium phosphate monobasic	1,100 mg/m ³
7727-43-7	barium sulphate, natural	990 mg/m ³
301-10-0	stannous caprylate	670 mg/m ³
12001-26-2	Mica	590 mg/m ³
63148-57-2	Poly(methylhydrosiloxane)	2,000 mg/m ³
112926-00-8	Precipitated silica gel (Silica-Amorphous)	1,200 mg/m ³

Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and Storage

Precautions for safe handling: Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires: No special measures required.

Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Keep receptacle tightly sealed.

Specific end use(s): No further relevant information available.

8 Exposure Controls/Personal Protection

Control parameters:

Components with occupational exposure limits:

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

7727-43-7 barium sulphate, natural

PEL	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV	Long-term value: 5* mg/m ³ *inhalable fraction; E

12001-26-2 Mica

PEL	Long-term value: 20 mppcf ppm <1% crystalline silica
REL	Long-term value: 3* mg/m ³ *respirable dust; containing < 1% quartz

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Trade Name: ABC Dry Chemical Fire Extinguisher

TLV	Long-term value: 0.1 mg/m ³ *Respirable particulate matter
112926-00-8 Precipitated silica gel (Silica-Amorphous)	
PEL	20mppcf or 80mg/m ³ %SiO ₂
REL	Long-term value: 6 mg/m ³ See Pocket Guide App. C
TLV	TLV withdrawn

Additional information:

The lists that were valid during the creation of this SDS were used as basis.

Exposure controls:

Appropriate engineering controls No further data; see section 7.

Personal protective equipment

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing and wash before reuse.

Wash hands before breaks and at the end of work.

Breathing equipment:

Use an N-95 dust mask for limited exposures and use air-purifying respirators with high efficiency particulate air filters (HEPA filters) for prolonged exposures.

Protection of hands:



Protective gloves

Material of gloves: Not applicable.

Penetration time of glove material: Not applicable.

Eye protection:



Safety glasses

Limitation and supervision of exposure into the environment: None

9 Physical and Chemical Properties

Information on basic physical and chemical properties

General Information

Physical state

Gaseous

Color:

Yellow

Odor:

Odorless

Odor threshold:

Not determined.

Melting point/Melting range:

Not determined.

Boiling point/Boiling range:

Not determined.

Flammability:

Not determined.

Explosion limits:

Lower:

Not determined.

Upper:

Not determined.

Flash point:

None

Auto igniting:

Not applicable

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Trade Name: ABC Dry Chemical Fire Extinguisher

Decomposition temperature:	Not determined.
pH-value @ 20 °C (68 °F):	4-5
Viscosity:	
Kinematic:	Not determined.
Dynamic:	Not determined.
Solubility in / Miscibility with:	
Water:	Fully miscible.
Partition coefficient (n-octanol/water):	Not determined.
Vapor pressure:	Not determined.
Vapor pressure:	
Density @ 20 °C (68 °F):	0.82 g/cm³ (6.8429 lbs/gal)
Relative density:	Not determined.
Vapor density:	Not determined.
Particle characteristics	Not applicable.
Other information:	
Appearance:	
Form:	Gaseous
Important information on protection of health and environment, and on safety:	
Ignition temperature:	Product is not self-igniting.
Danger of explosion:	Not determined.
Solvent content:	
VOC content:	0.00 %
Solids content:	<97.1 %
Change in condition	
Evaporation rate:	Not applicable.

10 Stability and Reactivity

Reactivity: Pressurized containers may rupture or explode if exposed to high heat

Chemical stability: Product is stable under normal conditions.

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

Possibility of hazardous reactions: No dangerous reactions known.

Conditions to avoid: No further relevant information available.

Incompatible materials:

Magnesium, strong oxidizers such as calcium hypochlorite (pool chlorine), strong alkalis, and isocyanic acids.

Hazardous decomposition products:

This product may decompose in fire and release carbon monoxide, carbon dioxide, and sulfur dioxide.

Oxides of phosphorous and ammonia have been reported.

11 Toxicological Information

Information on toxicological effects:

Acute toxicity:

LD/LC50 values that are relevant for classification:

7722-76-1 Ammonium phosphate monobasic

Oral	LD50	5,750 mg/kg (Rat)
Dermal	LD50	7,640 mg/kg (rabbit)

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Trade Name: ABC Dry Chemical Fire Extinguisher

112926-00-8 Precipitated silica gel (Silica-Amorphous)

Oral	LD50	>5,000 mg/kg (Rat)
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Primary irritant effect:

On the skin: No irritating effect.

On the eye: Irritating effect.

Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

Interactive effects No interactive effects between components are known.

Carcinogenic categories:

IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

NTP (National Toxicology Program):

None of the ingredients are listed.

OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

Alternative sources for toxicological information

No non-standard sources for toxicological information where used.

12 Ecological Information

Toxicity:

Aquatic toxicity:

112926-00-8 Precipitated silica gel (Silica-Amorphous)

EC50	>1,000 mg/l (Daphnia)
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Persistence and degradability: No further relevant information available.

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

Results of PBT and vPvB assessment:

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects:

Additional ecological information:

General notes: Not known to be hazardous to water.

13 Disposal Considerations

Waste treatment methods

Recommendation:

Observe all federal, state and local environmental regulations when disposing of this material.

Uncleaned packaging

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport Information

UN-Number:

DOT, ADR/ADN, IMDG, IATA

UN1044

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Safety Data Sheet

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2024 and GHS Rev 07

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Trade Name: ABC Dry Chemical Fire Extinguisher

UN proper shipping name:

DOT

ADR/ADN

IMDG, IATA

Transport hazard class(es):

DOT



Class:

Fire extinguishers

Label:

UN1044 FIRE EXTINGUISHERS

FIRE EXTINGUISHERS

ADR/ADN



Class:

2 Gases

Label:

2.2

IMDG, IATA



Class:

2 6A Gases

Label:

2.2

Packing group:

DOT, ADR/ADN, IMDG, IATA

Non-Regulated Material

Environmental hazards:

Not applicable.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not applicable.

Transport/Additional information:

DOT

Quantity limitations:

On passenger aircraft/rail: 75 kg

On cargo aircraft only: 150 kg

ADR/ADN

Excepted quantities (EQ):

Code: E0

Not permitted as Excepted Quantity

IMDG

Limited quantities (LQ):

120 ml

Excepted quantities (EQ):

Code: E0

Not permitted as Excepted Quantity

Special precautions for user:

Warning: Gases

Hazard identification number (Kemler code): -

EMS Number:

F-C,S-V

Stowage Category

A

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Safety Data Sheet

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2024 and GHS Rev 07

Date of issue: 10/29/2024

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Trade Name: ABC Dry Chemical Fire Extinguisher

UN "Model Regulation":

UN 1044 FIRE EXTINGUISHERS, 2.2

15 Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture:

No further relevant information available.

SARA (Superfund Amendments and Reauthorization):

Section 355 (extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

7727-43-7 barium sulphate, natural

TSCA (Toxic Substances Control Act):

7722-76-1	Ammonium phosphate monobasic	ACTIVE
7727-43-7	barium sulphate, natural	ACTIVE
301-10-0	stannous caprylate	ACTIVE
63148-57-2	Poly(methylhydrosiloxane)	ACTIVE
6358-31-2	Luna Yellow	ACTIVE

Hazardous Air Pollutants

None of the ingredients are listed.

California Proposition 65:

Chemicals known to cause cancer:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

New Jersey Right-to-Know List:

7727-43-7	barium sulphate, natural
12001-26-2	Mica
112926-00-8	Precipitated silica gel (Silica-Amorphous)

New Jersey Special Hazardous Substance List:

None of the ingredients are listed.

Pennsylvania Right-to-Know List:

7727-43-7	barium sulphate, natural
12001-26-2	Mica

Pennsylvania Special Hazardous Substance List:

None of the ingredients are listed.

Carcinogenic categories:

EPA (Environmental Protection Agency):

7727-43-7	barium sulphate, natural	D, CBD(inh), NL(oral) (Contd. on page 10)
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Safety Data Sheet

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2024 and GHS Rev 07

Date of issue: 10/29/2024

Revised on 10/29/2024

Trade Name: ABC Dry Chemical Fire Extinguisher

TLV (Threshold Limit Value established by ACGIH):

None of the ingredients are listed.

NIOSH-Ca (National Institute for Occupational Safety and Health):

None of the ingredients are listed.

GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms:



Signal word: Warning

Hazard-determining components of labeling:

Ammonium phosphate monobasic

Hazard statements:

H280 Contains gas under pressure; may explode if heated.

H320 Causes eye irritation.

Precautionary statements:

P264 Wash thoroughly after handling.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

P410+P403 Protect from sunlight. Store in a well-ventilated place.

National regulations:

The product is not subject to be labelled according with the prevailing version of the regulations on hazardous substances.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

Date of preparation: 10/29/2024

Abbreviations and acronyms:

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road

ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety & Health Administration

(Contd. on page 11)



Safety Data Sheet

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2024 and GHS Rev 07

Date of issue: 10/29/2024

Revised on 10/29/2024

Trade Name: ABC Dry Chemical Fire Extinguishant

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Gases under pressure - Compressed gas: Gases under pressure – Compressed gas

Acute toxicity - oral 4: Acute toxicity – Category 4

Skin irritation 2: Skin corrosion/irritation – Category 2

Eye irritation 2A: Serious eye damage/eye irritation – Category 2A

Eye irritation 2B: Serious eye damage/eye irritation – Category 2B

Specific target organ toxicity (single exposure) 3: Specific target organ toxicity (single exposure) – Category 3

* **Data compared to the previous version altered.**

SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106

SAFETY DATA SHEET Dura II A/C Flush Solvent

1. IDENTIFICATION

Product Name	Dura II A/C Flush Solvent
Product No.	69991, 69992, 409889, A99889
Identified uses	Cleaning agent.
Supplier	Four Seasons 1801 Waters Ridge Drive Lewisville, TX 75057
Contact Person	techsupport@microcare.com
Manufacturer	MicroCare Corporation 595 John Downey Drive New Britain, CT 06051 United States of America Toll Free: 1 (800) 638-0125 Telephone: 1-(860) 827-0626 Website: www.MicroCare.com email: techsupport@microcare.com
Emergency Telephone	CHEMTRAC (800) 424-9300

2. HAZARD(S) IDENTIFICATION

EMERGENCY OVERVIEW

Colourless liquid. Slight odor. Ether. This product is not flammable. May irritate eyes and skin. Gas or vapor displaces oxygen available for breathing (asphyxiant). No specific ventilation requirements noted, except this product must not be used in a confined space without good ventilation. Keep out of the reach of children.

Appearance	Clear liquid.
Color	Colourless.
Odor	Slight odor. Ether
GHS Pictogram	



Signal Word	Warning	
Hazard Statements		
	H332	Harmful if inhaled.
	H412	Harmful to aquatic life with long lasting effects.
Precautionary Statements		
	P102	Keep out of reach of children.
	P271	Use only outdoors or in a well-ventilated area.
	P501	Dispose of contents/container in accordance with local regulations.
Contains	trans-DICHLOROETHYLENE	
GHS Classification		
	Physical and Chemical Hazards	Not classified.
	Human health	Acute Tox. 4 - H332
	Environment	Aquatic Chronic 3 - H412

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM - WHMIS

Dura II A/C Flush Solvent



Materials Causing Other
Toxic Effects.

Controlled Product Classification

Canadian WHMIS Classification D2 WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (CPR SECTION (33)) This product has been classified according to the hazard criteria of the Controlled Product Regulations, and the MSDS contains all required information.

OSHA Regulatory Status

This Product is Hazardous under the OSHA Hazard Communication Standard.

Human Health

Prolonged skin contact may cause redness, irritation and dry skin. Mild dermatitis, allergic skin rash.

Inhalation

Vapors may irritate the respiratory system and cause coughing, asthmatic breathing and breathlessness.

Ingestion

May cause stomach pain or vomiting. May cause nausea, headache, dizziness and intoxication.

Skin Contact

Acts as a defatting agent on skin. May cause cracking of skin, and eczema.

Eye Contact

May cause temporary eye irritation.

Medical Symptoms

High concentrations of vapors may irritate respiratory system and lead to headache, fatigue, nausea and vomiting.

Environment

The product contains a substance which is harmful to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

Physical And Chemical Hazards

Vapors are heavier than air and may travel along the floor and in the bottom of containers. Gas or vapor displaces oxygen available for breathing (asphyxiant).

3. COMPOSITION/INFORMATION ON INGREDIENTS

1,1,1,2,3,4,4,5,5-decafluoropentane	10-30%
CAS No.: 138495-42-8	EC No.: 420-640-8
<p>GHS Classification Aquatic Chronic 3 - H412</p>	
1,1,1,3,3-PENTAFLUOROBUTANE	5-10%
CAS No.: 406-58-6	EC No.: 430-250-1
<p>GHS Classification Flam. Liq. 2 - H225</p>	
DIMETHYL CARBONATE	1-5%
CAS No.: 616-38-6	EC No.: 210-478-4
<p>GHS Classification Flam. Liq. 2 - H225</p>	

Dura II A/C Flush Solvent

trans-DICHLOROETHYLENE	60-90%
CAS No.: 156-60-5	EC No.: 205-860-2
GHS Classification Flam. Liq. 2 - H225; Acute Tox. 4 - H332; Aquatic Chronic 3 - H412	

Composition Comments

The Data Shown is in accordance with the latest EC Directives.

4. FIRST-AID MEASURES

Description of first aid measures**General Information**

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Place unconscious person on the side in the recovery position and ensure breathing can take place. Perform artificial respiration if breathing has stopped. Consult a physician for specific advice.

Inhalation

Move into fresh air and keep at rest. If respiratory problems, artificial respiration/oxygen. Get medical attention.

Ingestion

Never give liquid to an unconscious person. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Place unconscious person on the side in the recovery position and ensure breathing can take place. Get medical attention immediately!

Skin Contact

Promptly flush contaminated skin with soap or mild detergent and water. Promptly remove clothing if penetrated and flush the skin with water. Contact physician if irritation continues.

Eye Contact

Promptly wash eyes with plenty of water while lifting the eye lids. Make sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes and get medical attention.

Most important symptoms and effects, both acute and delayed**General Information**

The severity of the symptoms described will vary dependant of the concentration and the length of exposure. When working extensively on big surfaces in small and badly ventilated rooms, vapors may develop in concentrations which may cause malaise such as headache, dizziness and nausea.

Inhalation

May cause an asthma-like shortness of breath. Vapors may cause headache, fatigue, dizziness and nausea. Arrhythmia, (deviation from normal heart beat).

Ingestion

Pulmonary oedema, frothy sputum.

Skin Contact

Skin irritation. Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping.

Eye Contact

May cause temporary eye irritation. Irritating and may cause redness and pain.

Indication of any immediate medical attention and special treatment needed**Notes To The Physician**

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

5. FIRE-FIGHTING MEASURES

Flammability Class

This product is not flammable. TCC (Tag closed cup).

Flammability Limit - Lower(%) 4.3

Flammability Limit - Upper(%) 13.5

Extinguishing Media

This product is not flammable. Use fire-extinguishing media appropriate for surrounding materials.

Dura II A/C Flush Solvent

Unsuitable extinguishing media

Water spray. Never use water by itself on spillage; this will spread the spill and cause further contamination.

Hazardous combustion products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. Fire creates: Carbonyl compounds.

Chlorides.

Unusual Fire & Explosion Hazards

Closed containers can burst violently when heated, due to excess pressure build-up.

Specific Hazards

Avoid contact with naked flames and hot surfaces as corrosive and toxic decomposition products can be formed.

Special Fire Fighting Procedures

Containers close to fire should be removed immediately or cooled with water.

Protective Equipment For Fire-Fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Warn everybody of potential hazards and evacuate if necessary. Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Do not smoke, use open fire or other sources of ignition. Follow precautions for safe handling described in this material safety data sheet. For personal protection, see section 8.

Environmental Precautions

Contain spillages with sand, earth or any suitable adsorbent material. Avoid release to the environment.

Spill Clean Up Methods

Large quantities should not be discharged into the drain but removed with absorbing material. Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage with shovel, broom or the like and reuse, if possible. Dispose of large amounts of spillage/waste according to agreement with local authorities. Neoprene gloves are recommended.

Reference to other sections

For personal protection, see section 8. See section 11 for more detailed information on health effects and symptoms. For waste disposal, see section 13.

7. HANDLING AND STORAGE

Handling

Provide good ventilation. Avoid inhalation of vapors/spray and contact with skin and eyes.

Storage

Store in tightly closed original container in a dry, cool and well-ventilated place.

Storage Class

Unspecified storage. This product is not flammable.

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT	STD	TWA (8-hrs)		STEL (15 min)		Notes
1,1,1,2,3,4,4,5,5,5-decafluoropentane	SUP	200 ppm				
1,1,1,3,3-PENTAFLUOROBUTANE	SUP	1000 ppm				
trans-DICHLOROETHYLENE	ACGIH	200 ppm				

ACGIH=American Conference of Governmental Industrial Hygienists.

Ingredient Comments

WEL = Workplace Exposure Limits

Protective Equipment



Dura II A/C Flush Solvent

Engineering Measures

No specific ventilation requirements noted, except this product must not be used in a confined space without good ventilation.

Respiratory Equipment

Vapors are heavier than air and may travel along the floor and in the bottom of containers. At work in confined or poorly ventilated spaces, respiratory protection with air supply must be used. Self-contained breathing apparatus with full facepiece.

Hand Protection

For prolonged or repeated skin contact use suitable protective gloves. Gloves of nitrile rubber, PVA or Viton are recommended.

Eye Protection

Wear approved, tight fitting safety glasses where splashing is probable. If risk of splashing, wear safety goggles or face shield.

Other Protection

Wear suitable protective clothing as protection against splashing or contamination.

Hygiene Measures

Avoid inhalation of spray mist and contact with skin and eyes. When using do not eat, drink or smoke. Wash hands at the end of each work shift and before eating, smoking and using the toilet.

Skin Protection

Wear apron or protective clothing in case of splashes.

Thermal hazards

Avoid contact with naked flames and hot surfaces as corrosive and toxic decomposition products can be formed.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear liquid.
Color	Colourless.
Odor	Slight odor. Ether
Solubility	Slightly soluble in water.
Initial boiling point and boiling range	41 C / 106 F (estimated)
Vapor density (air=1)	3.4
Vapor pressure	5.5 psia 20 C / 77 F
Evaporation rate	>1 (EtOH=1)
Flammability Limit - Lower(%)	4.3
Flammability Limit - Upper(%)	13.5
Volatility Description	Volatile
Volatile By Vol. (%)	100
Flammability	This product is not flammable.

10. STABILITY AND REACTIVITY

Reactivity

Reacts strongly with alkaline metals and metal powder.

Stability

Stable under normal temperature conditions and recommended use.

Hazardous Polymerisation

Will not polymerise.

Conditions To Avoid

Avoid contact with naked flames and hot surfaces as corrosive and toxic decomposition products can be formed.

Materials To Avoid

Alkali metals. Alkali earth metals. Powdered metal.

Hazardous Decomposition Products

When heated, toxic and corrosive vapors/gases may be formed. Halogenated hydrocarbons. Hydrogen fluoride (HF). Carbon dioxide (CO₂). Carbon monoxide (CO).

11. TOXICOLOGICAL INFORMATION

Toxicological information

No information available.

Toxicological Information on Ingredients:

Dura II A/C Flush Solvent
DIMETHYL CARBONATE (CAS: 616-38-6)

Toxic Dose 1 - LD 50

12, 900 mg/kg (oral rat)

Toxic Dose 2 - LD 50

6, 000 mg/kg (oral-mouse)

trans-DICHLOROETHYLENE (CAS: 156-60-5)

Toxic Dose 1 - LD 50

1235 mg/kg (oral rat)

Toxic Dose 2 - LD 50

>5000 mg/kg (oral-rbt)

Toxic Conc. - LC 50

24100 ppm/4h (inh-rat)

Other Health Effects

This substance has no evidence of carcinogenic properties.

1.1.1.3,3-PENTAFLUOROBUTANE (CAS: 406-58-6)

1.1.1.2,3,4,4,5,5,5-decafluoropentane (CAS: 138495-42-8)

Toxic Dose 1 - LD 50

>5, 000 mg/kg (oral rat)

Toxic Conc. - LC 50

11, 100 ppm/4h (inh-rat)

12. ECOLOGICAL INFORMATION

Ecotoxicity

The product contains a substance which is toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

Acute Fish Toxicity

Very toxic to aquatic organisms.

Degradability

No data available.

Bioaccumulative potential

No data available on bioaccumulation.

Mobility:

No data available.

Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB Substances. No data available.

Other adverse effects

The product contains substances which contribute to global warming (greenhouse effect).

Dura II A/C Flush Solvent

Ecological Information on Ingredients:

DIMETHYL CARBONATE (CAS: 616-38-6)

Acute Fish Toxicity

Not considered toxic to fish.

Degradability

The product is biodegradable.

trans-DICHLOROETHYLENE (CAS: 156-60-5)

Ecotoxicity

Low acute toxicity to aquatic organisms.

LC 50, 96 Hrs, Fish mg/l

1350

EC 50, 48 Hrs, Daphnia, mg/l

220

Degradability

No data available.

Bioaccumulative potential

Bioaccumulation is unlikely to be significant because of the low water solubility of this product.

Mobility:

The product has poor water-solubility.

1.1.1.2,3.4.4.5.5-decafluoropentane (CAS: 138495-42-8)

Ecotoxicity

It is unlikely that the substance will dissolve in water in amounts big enough to have a toxic effect on fish and daphnies.

LC 50, 96 Hrs, Fish mg/l

27.2

Degradability

The product is not expected to be biodegradable.

Bioaccumulative potential

Bioaccumulation is unlikely to be significant because of the low water solubility of this product.

IC 50, 72 Hrs, Algae, mg/l

120

13. DISPOSAL CONSIDERATIONS

Waste Management

Refer to manufacturer/supplier for information on recovery/recycling. Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with local Waste Disposal Authority.

Disposal Methods

Dispose of waste and residues in accordance with local authority requirements. Recover and reclaim or recycle, if practical.

14. TRANSPORT INFORMATION

General	Not regulated. The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, DOT).
DOT Proper Shipping Name	Non Regulated Liquid Cleaning Compound NOS
DOT Hazard Class	Not regulated.
Transport Labels	No transport warning sign required.
DOT Pack Group	N/A
Environmentally Hazardous Substance/Marine Pollutant	No.

Dura II A/C Flush Solvent

Transport in Bulk according to Annex II of MARPOL 73/78 and the IBC Code Notes

Not applicable. No information required.

15. REGULATORY INFORMATION

Regulatory Status (US)

SECTION 313: This product does not contain toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372.

Regulatory References

NFPA30 Flammable and Combustible Liquids Code.

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

The following ingredients are listed.

trans-DICHLOROETHYLENE; 1, 000 lbs (454 Kg)

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed.

SARA 313 Emission Reporting

None of the ingredients are listed.

CAA Accidental Release Prevention

None of the ingredients are listed.

SARA (311/312) Hazard Categories

Acute

OSHA Highly Hazardous Chemicals

None of the ingredients are listed.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed.

California Air Toxics "Hot Spots" (A-I)

None of the ingredients are listed.

California Air Toxics "Hot Spots" (A-II)

None of the ingredients are listed.

Massachusetts "Right To Know" List

The following ingredients are listed.

DIMETHYL CARBONATE

trans-DICHLOROETHYLENE

Rhode Island "Right To Know" List

None of the ingredients are listed.

Minnesota "Right To Know" List

None of the ingredients are listed.

New Jersey "Right To Know" List

The following ingredients are listed.

DIMETHYL CARBONATE

Pennsylvania "Right To Know" List

The following ingredients are listed.

DIMETHYL CARBONATE

trans-DICHLOROETHYLENE

International Inventories

EU - EINECS/ELINCS

The following ingredients are listed.

1, 1, 1, 3, 3-PENTAFLUOROBUTANE

Canada – DSL/NDSL

The following ingredients are listed.

1, 1, 1, 3, 3-PENTAFLUOROBUTANE

Dura II A/C Flush Solvent

DIMETHYL CARBONATE
trans-DICHLOROETHYLENE

US - TSCA

All ingredients are listed or exempt.

US – TSCA 12(b) Export Notification

None of the ingredients are listed.

Australia - AICS

The following ingredients are listed.

DIMETHYL CARBONATE

Japan – MITI

The following ingredients are listed.

DIMETHYL CARBONATE

Korea - KECI

The following ingredients are listed.

1, 1, 1, 3, 3-PENTAFLUOROBUTANE

DIMETHYL CARBONATE

China - IECSC

The following ingredients are listed.

1, 1, 1, 3, 3-PENTAFLUOROBUTANE

DIMETHYL CARBONATE

Philippines – PICCS

The following ingredients are listed.

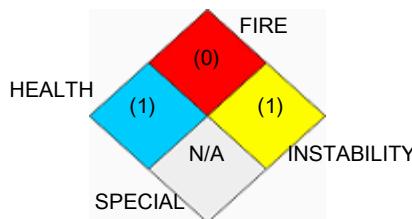
DIMETHYL CARBONATE

16. OTHER INFORMATION

HAZARDOUS MATERIAL INFORMATION SYSTEM (HMIS)

HEALTH	1
FLAMMABILITY	0
PHYSICAL	1
PERSONAL PROTECTION	N/A.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)



Revision Comments

NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision Date 03/04/2015

Revision 7

Supersedes Date 03/04/2015

Sds No. BULK_DURA II

Material Safety Data Sheet Status Approved.

Date 04 March 2015

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

1. Identification

Product identifier Air Brake Anti-Freeze & Conditioner - 1 qt

Other means of identification

Product Code No. 05532 (Item# 1003822)

Recommended use Air brake anti-freeze

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufactured or sold by:

Company name CRC Industries, Inc.

Address 885 Louis Dr.

Warminster, PA 18974 US

Telephone

General Information 215-674-4300

Technical Assistance 800-521-3168

Customer Service 800-272-4620

**24-Hour Emergency
(CHEMTREC)** 800-424-9300 (US)

Website crcindustries.com

2. Hazard(s) identification

Physical hazards Flammable liquids Category 2

Health hazards Acute toxicity, oral Category 3

Acute toxicity, dermal Category 3

Acute toxicity, inhalation Category 3

Reproductive toxicity Category 1A

Specific target organ toxicity, single exposure Category 1 (central nervous system, eyes)

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Highly flammable liquid and vapor. Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled. May damage fertility or the unborn child. Causes damage to organs (central nervous system, eyes).

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist/vapors. Use only outdoors or in a well-ventilated area. Maintain ventilation during use and until all vapors are gone. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

Response	If swallowed: Immediately call a poison center/doctor. Rinse mouth. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor. In case of fire: Do not use water jet as an extinguisher, as this will spread the fire.
Storage	Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
methanol		67-56-1	90 - 100

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a poison center or doctor/physician.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical advice/attention if you feel unwell. Get medical attention if irritation develops and persists. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Most important symptoms/effects, acute and delayed	Narcosis. Headache. Dizziness. Nausea, vomiting. Behavioral changes. Decrease in motor functions. Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Methanol is metabolized to formic acid and formaldehyde. These metabolites can cause metabolic acidosis, visual disturbances and blindness. Since metabolism is required for these toxic symptoms, their onset may be delayed from 6 to 30 hours following ingestion. Ethanol competes for the same metabolic pathway and has been used to prevent methanol metabolism. Ethanol administration is indicated in symptomatic patients or at blood methanol concentrations above 20 µg/dl. Methanol is effectively removed by hemodialysis. Fomepizole (4-methylpyrazole) is an effective antagonist of alcohol dehydrogenase, and may be used as an antidote in the treatment of methanol poisoning.
General information	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Alcohol resistant foam. Carbon dioxide (CO ₂). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Highly flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. This product is miscible in water. Dike far ahead of spill for later disposal.
	Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
Environmental precautions	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. Use non-sparking tools and explosion-proof equipment. Use only outdoors or in a well-ventilated area. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Do not breathe mist/vapors. Do not taste or swallow. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Observe good industrial hygiene practices. For product usage instructions, see the product label.
Conditions for safe storage, including any incompatibilities	Keep away from heat, sparks and open flame. Eliminate sources of ignition. Avoid spark promoters. Store in a cool, dry place out of direct sunlight. Keep container tightly closed. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
methanol (CAS 67-56-1)	PEL	260 mg/m3

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
		200 ppm
US. ACGIH Threshold Limit Values		
Components	Type	Value
methanol (CAS 67-56-1)	STEL	250 ppm
	TWA	200 ppm
US. NIOSH: Pocket Guide to Chemical Hazards		
Components	Type	Value
methanol (CAS 67-56-1)	STEL	325 mg/m ³
		250 ppm
	TWA	260 mg/m ³
		200 ppm

Biological limit values**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
methanol (CAS 67-56-1)	15 mg/l	Methanol	Urine	*

* - For sampling details, please see the source document.

Exposure guidelines**US - California OELs: Skin designation**

methanol (CAS 67-56-1) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

methanol (CAS 67-56-1) Skin designation applies.

US - Tennessee OELs: Skin designation

methanol (CAS 67-56-1) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

methanol (CAS 67-56-1) Danger of cutaneous absorption

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

methanol (CAS 67-56-1) Can be absorbed through the skin.

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment**Eye/face protection** Wear safety glasses with side shields (or goggles).**Skin protection****Hand protection** Wear protective gloves such as: Nitrile. Rubber.**Other** Wear appropriate chemical resistant clothing.**Respiratory protection**

If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. When using do not smoke. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties**Appearance****Physical state** Liquid.**Form** Liquid.

Color	Colorless.
Odor	Pungent. Alcoholic.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	-144 °F (-97.8 °C) estimated
Initial boiling point and boiling range	147.2 °F (64 °C) estimated
Flash point	54.0 °F (12.2 °C) Setaflash
Evaporation rate	Fast.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	2.6 % estimated
Explosive limit - upper (%)	36.5 % estimated
Vapor pressure	141.9 hPa estimated
Vapor density	1.1 (air = 1)
Relative density	0.79
Solubility(ies)	
Solubility (water)	Completely soluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	851 °F (455 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Percent volatile	99.9 % estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides. Formaldehyde.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Toxic if inhaled. May cause damage to organs by inhalation.
Skin contact	Toxic in contact with skin.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Toxic if swallowed. Even small amounts (30-250 ml methanol) may be fatal. Symptoms are stomach ache, nausea, vomiting, dullness, visual disorder and blindness.
Symptoms related to the physical, chemical and toxicological characteristics	Narcosis. Headache. Dizziness. Nausea, vomiting. Behavioral changes. Decrease in motor functions.

Information on toxicological effects

Acute toxicity	Toxic if inhaled. Toxic in contact with skin. Toxic if swallowed.
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Product	Species	Test Results
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Air Brake Anti-Freeze & Conditioner - 1 qt

Acute

Dermal

ATE

300 mg/kg

Product	Species	Test Results
Inhalation		
Vapor		
ATE		3 mg/l
Oral		
ATE		100 mg/kg
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.	
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	This product is not expected to cause skin sensitization.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	Not classifiable as to carcinogenicity to humans.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Not listed.		
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)		
Not listed.		
US. National Toxicology Program (NTP) Report on Carcinogens		
Not listed.		
Reproductive toxicity	May damage fertility or the unborn child.	
Specific target organ toxicity - single exposure	Causes damage to organs (central nervous system, eyes). Even small amounts (30-250 ml methanol) may be fatal. Symptoms are stomach ache, nausea, vomiting, dullness, visual disorder and blindness.	
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	Not an aspiration hazard.	
Chronic effects	Prolonged inhalation may be harmful.	

12. Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence and degradability	No data is available on the degradability of any ingredients in the mixture.
Bioaccumulative potential	No data available.
Partition coefficient n-octanol / water (log Kow)	
methanol	-0.77
Mobility in soil	No data available.
Other adverse effects	Not established.

13. Disposal considerations

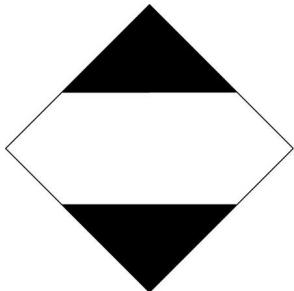
Disposal instructions	This material and its container must be disposed of as hazardous waste. Empty container can be recycled. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazardous waste code	Possible RCRA waste code includes: D001: Waste Flammable material with a flash point <140 F F003: Waste Non-halogenated Solvent - Spent Non-halogenated Solvent
	However, it is the generator's responsibility to determine the proper classification and disposal method at the time of disposal.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT		
UN number	UN1230	
Material name: Air Brake Anti-Freeze & Conditioner - 1 qt No. 05532 (Item# 1003822) Version #: 02 Revision date: 12-01-2022 Issue date: 11-10-2021		SDS US 6 / 10

UN proper shipping name	Methanol solution, Limited Quantity
Transport hazard class(es)	
Class	3
Subsidiary risk	6.1
Label(s)	3
Packing group	II
Environmental hazards	
Marine pollutant	No.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	IB2, T7, TP2
Packaging exceptions	150
Packaging non bulk	202
Packaging bulk	242
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.
IATA	
UN number	UN1230
UN proper shipping name	Methanol solution
Transport hazard class(es)	
Class	3
Subsidiary risk	6.1
Packing group	II
ERG Code	3L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.
IMDG	
UN number	UN1230
UN proper shipping name	METHANOL SOLUTION, Limited Quantity
Transport hazard class(es)	
Class	3
Subsidiary risk	6.1
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-E, S-D
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

DOT; IMDG





15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

methanol (CAS 67-56-1)

CERCLA Hazardous Substances: Reportable quantity

methanol (CAS 67-56-1) 5000 LBS

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

methanol (CAS 67-56-1)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Contains component(s) regulated under the Safe Drinking Water Act.

Food and Drug Administration (FDA) Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Classified hazard categories	Flammable (gases, aerosols, liquids, or solids) Acute toxicity (any route of exposure) Reproductive toxicity Specific target organ toxicity (single or repeated exposure) Hazard not otherwise classified (HNOC)
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SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
methanol	67-56-1	90 - 100

US state regulations

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

methanol (CAS 67-56-1)

US. New Jersey Worker and Community Right-to-Know Act

methanol (CAS 67-56-1)

US. Massachusetts RTK - Substance List

methanol (CAS 67-56-1)

US. Pennsylvania Worker and Community Right-to-Know Law

methanol (CAS 67-56-1)

US. Rhode Island RTK

methanol (CAS 67-56-1)

California Proposition 65**WARNING:** Reproductive Harm - www.P65Warnings.ca.gov**California Proposition 65 - CRT: Listed date/Developmental toxin**

methanol (CAS 67-56-1)

Listed: March 16, 2012

Volatile organic compounds (VOC) regulations**EPA****VOC content (40 CFR 51.100(s))** 100 %**Consumer products (40 CFR 59, Subpt. C)** Not regulated**State****Consumer products** Not regulated**VOC content (CA)** 100 %**VOC content (OTC)** 100 %**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision**Issue date** 11-10-2021**Revision date** 12-01-2022**Prepared by** Danica Fulmer**Version #** 02**Further information** CRC # 620B/1002661**Disclaimer**

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC's knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or CRC Industries, Inc..

Revision information

Product and Company Identification: Product and Company Identification
Composition / Information on Ingredients: Disclosure Overrides
Handling and storage: Precautions for safe handling
Ecological information: Bioaccumulative potential
Ecological information: Other adverse effects
Disposal considerations: Hazardous waste code
Transport Information: Material Transportation Information
GHS: Classification



Air Filter Cleaner

Version: 1.1

Released: 2024-06-03

Revision Date: 2024-06-03

1. IDENTIFICATION OF THE SUBSTANCE / APPLICATION AND THE COMPANY

Supplier:**Product Name:** Air Filter Cleaner

Maxima Racing Oils
9266 Abraham Way
Santee, CA 92071
USA
+1 619 449 5000

Article Number:**Generic Chemical Name:** Aerosol**Applications:** Air Filter Cleaner**Emergency Telephone:** CHEMTREC +1 703 527 3887 (24 hours)

Note: This product is a consumer product and is labeled in accordance with the US Consumer Product Safety Commission regulations which take precedence over OSHA Hazard Communication labeling. The actual container label will not include the label elements below. The labeling below applies to industrial/professional products.

2. HAZARDS IDENTIFICATION

GHS Classification

Flammable Aerosol	Category 1
Aspiration Hazard	Category 1
Skin Irritant	Category 2
Skin Sensitizer	Category 1B
Eye Damage	Category 1
Specific Target Organ Toxicity - Single Exposure	Category 3
Aquatic Chronic	Category 2

GHS Pictogram**Signal Word****Danger!****Hazard Statements**

H222 Extremely flammable aerosol.

H229 Pressurized container: May burst if heated.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.



Air Filter Cleaner

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Precautionary Statements

Prevention	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211 Do not spray on an open flame or other ignition source. P251 Pressurized container: Do not pierce or burn, even after use. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment. P280 Wear protective gloves.
Response	P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P391 Collect spillage.
Storage	P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. P405 Store locked up.
Disposal	P501 Dispose of contents and container in accordance with local, regional and national regulations.
Other Hazards	Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Components	Content %	CAS Number
Solvent naphtha (petroleum), heavy aromatic	15-<30	64742-94-5
Potassium dodecylbenzene sulfonate	10-<15	27177-77-1
4-chloro- α,α,α -trifluorotoluene	5-<10	98-56-6
2-Butoxy-ethanol	1-<5	111-76-2
Naphthalene	>0.1-<0.3	91-20-3
Petroleum gases, liquefied, sweetened	10-30	68476-86-8

The specific identity and/or exact percentage has been withheld as a trade secret.

4. FIRST-AID MEASURES

Inhalation	If inhaled remove to fresh air. If irritation or difficulty in breathing occurs, get medical attention.
Skin Contact	Wash skin with soap and water. Remove clothing and shoes if contaminated. Launder clothing before reuse. If irritation or rash develops, get medical attention.



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Eye Contact

Important! Immediately flush eyes with large amounts of tepid water for at least 15 minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Get medical attention.

Ingestion

May be fatal if swallowed and enters airways. If swallowed immediately call a POISON CENTER. Do not induce vomiting. As a precaution, give the person a glass of water or milk to drink and get medical advice. Never give anything by mouth to an unconscious person.

Most Important Symptoms

Causes serious eye damage. Causes skin irritation. May cause an allergic skin reaction. Inhalation of vapors or mist may cause central nervous system effects such as headache, dizziness, drowsiness, nausea and unconsciousness. Aspiration hazard. May be fatal if swallowed and enters lung and airways.

Indication of Immediate Medical Attention Needed

Immediate medical attention required if ingested.

Notes to Physician

Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media

Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames. Water may be ineffective but can be used to cool exposed containers and structures and disperse flammable vapors. Minimize breathing of gases, vapor, fumes or decomposition products.

Specific Hazards Arising From The Chemical

Contents under pressure. Keep away from heat and open flames. Container may rupture or explode in the heat of a fire. Prolonged exposure to temperatures above 122°F (50°C) may cause cans to burst.

Special Protective Equipment And Precautions For Fire-Fighters

Firefighters should wear full emergency equipment and approved positive pressure self-contained breathing apparatus. Do not enter fire area without proper protection. Cool exposed intact containers with water. Protect against bursting cans.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Evacuate spill area and keep unprotected personnel away. Remove all sources of ignition. Ventilate area with explosion proof equipment. Wear appropriate protective clothing. See also: "Personal Protection" section 8.

Environmental Hazards

Avoid release into the environment. Report spill as required by local and federal regulations.

Methods/Materials for Cleaning up

Contain and collect using inert absorbent materials and place in appropriate containers for disposal. Use non-sparking tools and equipment. If spill has not ignited, use water spray to disperse the vapors and protect personnel attempting to stop leak. Ensure collected material is handled in accordance with section 13 "Disposal Considerations".



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7. HANDLING AND STORAGE

Precautions for Safe Handling:	Avoid contact with skin, eyes and clothing. Do not breathe vapors or mists. Wear protective clothing and equipment. Use only with adequate ventilation. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Keep away from heat, sparks, flames and all other sources of ignition. Do not permit smoking in use or storage areas. Do not expose to temperatures above 122°F (50°C). Do not puncture or incinerate containers.
Conditions for Safe Storage	Store in a cool, dry, well-ventilated area away from heat, direct sunlight and all sources of ignition. Store in accordance with regulations for the storage of aerosol containers. Store away from oxidizers and other incompatible materials. Protect from physical damage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits	Solvent naphtha (petroleum), heavy aromatic 2-Butoxy-ethanol	200 mg/m ³ TWA ACGIH TLV (as total hydrocarbon vapor) 20 ppm (97 mg/m ³) TWA ACGIH TLV
Appropriate Engineering Controls	Use with adequate local exhaust ventilation to maintain exposures below the occupational exposure limits. Use explosion proof equipment where required.	
Personal Protection		
Respiratory Protection:	If exposure limits are exceeded, use a NIOSH approved respirator with organic vapor cartridges and particulate pre-filter. Selection of respiratory protection depends on the contaminant type, form and concentration. Select in accordance with OSHA 1910.134 and good Industrial Hygiene practice.	
Eye Protection:	Safety glasses or goggles recommended if splashing is possible.	
Skin/Body Protection:	Wear protective clothing if needed to avoid skin contact and contamination of personal clothing. Suitable washing should be available in the work area. Contaminated clothing should be removed and laundered before re-use.	
Hand Protection:	Wear impervious gloves to avoid prolonged skin contact.	

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid
Color	Dark green
Odor	Aromatic
Odor Threshold	No data available
pH	No data available



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Freezing Point	No data available
Boiling Point	No data available
Flash Point	No data available
Evaporation Rate	No data available
Flammability (solid, gas)	No data available
Upper Explosion Limit	No data available
Lower Explosion Limit	No data available
Vapor Pressure	No data available
Vapor Density (Air=1)	No data available
Relative Density	No data available
Solubility	Miscible with water
Partition Coefficient: n-octanol/water	No data available
Auto Ignition	No data available
Temperature	
Decomposition	No data available
Temperature	
Volatile Organic Compounds (VOC)	No data available
Viscosity	< 20.5 cSt @40°C

10. STABILITY AND REACTIVITY

Reactivity	Not expected to be reactive.
Chemical Stability	Stable.
Possibility of Hazardous Reactions	Vapors may form explosive mixture with air.
Conditions to Avoid	Keep away from heat, sparks, flames and all other sources of ignition. Dropping containers may cause bursting.
Incompatible Materials	Avoid contact with strong oxidizing agents.
Hazardous Decomposition Product	Carbon monoxide and carbon dioxide, smoke fumes, and unburned hydrocarbons.

11. TOXICOLOGICAL INFORMATION

Potential Health Hazards

Eye Contact: Causes serious eye damage with redness, tearing and pain. May cause damage to the cornea, iris or conjunctiva.

Skin Contact: Causes irritation with redness and drying of the skin. Prolonged contact may cause defatting of the skin and dermatitis.

Inhalation: Inhalation of vapors may cause central nervous system depression with symptoms of headache, dizziness, giddiness, intoxication, nausea, vomiting, disorientation, stupor and unconsciousness.



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Ingestion: Swallowing large amounts may cause gastrointestinal effects including nausea and diarrhea. Aspiration into the lungs during ingestion or vomiting may cause serious lung damage which may be fatal.

Chronic Effects of Overexposure: None known.

Sensitization: The product is classified as a skin sensitizer.

4-chloro- α,α,α -trifluorotoluene is classified as a skin sensitizer.

Mutagenicity: This product is not expected to cause mutagenic activity.

Reproductive Toxicity: This product is not expected to cause reproductive or developmental effects.

Carcinogenicity: One of the components of this product (naphthalene) is listed as a carcinogen or suspected carcinogen by IARC, NTP, or OSHA.

Acute Toxicity:

Solvent naphtha (petroleum), heavy aromatic	Oral rat LD50: 3000 mg/kg Inhalation rat LC50: > 3800 mg/L/4h Dermal rabbit LD50: >2000 mg/kg
Potassium dodecylbenzene sulfonate	Oral rat LD50: 1260 mg/kg
2-Butoxyethanol	Oral rat LD50: 1300 mg/kg Inhalation rat LC50: 2.56 mg/L/4h Dermal guinea pig LD0: >2000 mg/kg
4-chloro- α,α,α -trifluorotoluene	Oral rat LD50: >6800 mg/kg Inhalation rat LC50: >4479 ppm Dermal rabbit LD50: >2700 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

Solvent naphtha (petroleum), heavy aromatic	96 h LL50 Oncorhynchus mykiss 2-5 mg/L 48 h EL50 Daphnia magna 1.4 mg/L 72 h EL50 Pseudokirchnerella subcapitata 1-3 mg/L
Potassium dodecylbenzene sulfonate	L(E)50 aquatic organisms > 100 mg/L
2-Butoxyethanol	96 h LC50 Oncorhynchus mykiss 1474 mg/L 48 h EC50 Daphnia magna 1550 mg/L 72 h EC50 Pseudokirchnerella subcapitata 911 mg/L
4-chloro- α,α,α -trifluorotoluene	96 h LC50 rainbow trout 13.5 mg/L 48 h Water flea 12.4 mg/L 72 h green and blue-green algae 500 mg/L

Biodegradation

Solvent naphtha (petroleum), heavy aromatic Inherently biodegradable.



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Potassium dodecylbenzene sulfonate	Readily biodegradable.
2-butoxyethanol	Readily biodegradable.
Bioaccumulation	
Solvent naphtha (petroleum), heavy aromatic	Potential for bioaccumulation.
2-butoxyethanol	Potential for bioaccumulation.
Potassium dodecylbenzene sulfonate	Low potential for bioaccumulation.
Mobility in soil	Highly volatile, will partition rapidly to air. Not expected to partition to sediment and wastewater solids.
Other adverse effects:	None known.

13. DISPOSAL CONSIDERATIONS

Disposal	Dispose in accordance with all local, state and federal regulations.
-----------------	--

14. TRANSPORT INFORMATION

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
DOT	UN1950	Aerosols	2.1		
TDG	UN1950	Aerosols	2.1		
IMDG	UN1950	Aerosols	2.1	LTD QTY	Marine Pollutant (contains Hydrocarbons, C10, aromatics, < 1% naphthalene)
IATA	UN1950	Aerosols, flammable	2.1		

Footnote: Marine Pollutant designation is applicable only if shipped over water.

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable – product is transported only in packaged form

Special precautions: None known.

15. REGULATORY INFORMATION

CERCLA: This product is not subject to CERCLA reporting requirements, however, oil spills are reportable to the National Response Center under the Clean Water Act and many states have more



Air Filter Cleaner

Version: 1.1

Released: 2024-06-03

Revision Date: 2024-06-03

stringent release reporting requirements. Report spills required under federal, state and local regulations.

EPA SARA 302: This product does not contain chemicals regulated under SARA Section 302.

EPA SARA 311 Hazard Classification: Refer to SDS section 2 for GHS hazard classes applicable for this product.

EPA SARA 313: This product contains the following chemicals that are regulated under SARA Title III, section 313: 2-butoxyethanol (CAS 111-76-2), naphthalene (91-20-3)

California Proposition 65: This product contains the following chemicals known to the State of California to cause cancer: naphthalene

Chemical Inventories

Toxic Substances Control Act: All of the components of this product are listed on the TSCA inventory

16. OTHER INFORMATION

NFPA Rating (NFPA 704):	Health: 3	Fire: 3	Instability: 1
HMIS Rating:	Health: 3	Fire: 2	Physical Hazard: 1

Date of Revision: June 3, 2024

Date of Previous Revision: None

Revision History:

New document.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

SAFETY DATA SHEET

Version 6.11
Revision Date 09/06/2024
Print Date 09/07/2024

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : Ammonia

Product Number : 294993

Brand : Aldrich

Index-No. : 007-001-00-5

CAS-No. : 7664-41-7

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Synthesis of substances

Uses advised against : The product is being supplied under the TSCA R&D Exemption (40 CFR Section 720.36). It is the recipient's responsibility to comply with the requirements of the R&D exemption. The product may not be used for a non-exempt commercial purpose under TSCA unless appropriate consent is granted in writing by MilliporeSigma.

1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich Inc.
3050 SPRUCE ST
ST. LOUIS MO 63103
UNITED STATES

Telephone : +1 314 771-5765

Fax : +1 800 325-5052

1.4 Emergency telephone

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable gases (Category 2), H221

Gases under pressure (Liquefied gas), H280

Acute toxicity, Inhalation (Category 3), H331

Skin corrosion (Category 1B), H314
Serious eye damage (Category 1), H318
Short-term (acute) aquatic hazard (Category 1), H400
Long-term (chronic) aquatic hazard (Category 2), H411

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Danger

Hazard Statements

H221 Flammable gas.
H280 Contains gas under pressure; may explode if heated.
H314 Causes severe skin burns and eye damage.
H331 Toxic if inhaled.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements

P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
P260 Do not breathe gas.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P363 Wash contaminated clothing before reuse.
P377 Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P381 Eliminate all ignition sources if safe to do so.
P391 Collect spillage.
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P410 + P403 Protect from sunlight. Store in a well-ventilated place.
P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Corrosive to the respiratory tract.

SECTION 3: Composition/information on ingredients

3.1 Substances

Formula : H₃N
Molecular weight : 17.03 g/mol
CAS-No. : 7664-41-7
EC-No. : 231-635-3
Index-No. : 007-001-00-5

Component	Classification	Concentration
ammonia anhydrous		
	Flam. Gas 2; Press. Gas Liquefied gas; Acute Tox. 3; Skin Corr. 1B; Eye Dam. 1; Aquatic Acute 1; Aquatic Chronic 2; H221, H280, H331, H314, H318, H400, H411 M-Factor - Aquatic Acute: 10	<= 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

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The life science business of Merck KGaA, Darmstadt, Germany
operates as MilliporeSigma in the US and Canada

Millipore
Sigma

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO₂) Foam Dry powder

Unsuitable extinguishing media

Water

5.2 Special hazards arising from the substance or mixture

Nitrogen oxides (NO_x)

Not combustible.

Pay attention to flashback.

Ambient fire may liberate hazardous vapours.

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Remove container from danger zone and cool with water. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe gas. Avoid substance contact.

Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Stop flow of gas, move leaking cylinder to open air if without risk.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Keep locked up or in an area accessible only to qualified or authorized persons. Keep away from combustible materials and sources of ignition.

Contents under pressure.

Storage class

Storage class (TRGS 510): 2A: Gases

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
ammonia anhydrous	7664-41-7	TWA	50 ppm 35 mg/m ³	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		PEL	25 ppm 18 mg/m ³	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
		STEL	35 ppm 27 mg/m ³	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
		TWA	25 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	35 ppm	USA. ACGIH Threshold Limit Values (TLV)
		TWA	25 ppm 18 mg/m ³	USA. NIOSH Recommended Exposure Limits
		ST	35 ppm 27 mg/m ³	USA. NIOSH Recommended Exposure Limits

8.2 Exposure controls

Appropriate engineering controls

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: butyl-rubber

Minimum layer thickness: 0.7 mm

Break through time: 480 min

Material tested:Butoject® (KCL 898)

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact

Material: butyl-rubber

Minimum layer thickness: 0.7 mm
Break through time: 480 min
Material tested: Butoject® (KCL 898)

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

Recommended Filter type: Filter type K

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

required when vapours/aerosols are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	Form: Liquefied gas Color: colorless
b) Odor	stinging, Do not attempt to smell the product as it is hazardous.
c) Odor Threshold	0.02 ppm
d) pH	ca.10 - 12 at 50 g/l at 20 °C (68 °F)
e) Melting point/freezing point	Melting point/ range: -78 °C (-108 °F) - lit.
f) Initial boiling point and boiling range	-33 °C -27 °F - lit.
g) Flash point	()Not applicable
h) Evaporation rate	Not applicable
i) Flammability (solid, gas)	The product is not flammable.
j) Upper/lower flammability or explosive limits	Upper explosion limit: 25 %(V) Lower explosion limit: 16 %(V)
k) Vapor pressure	8,600 hPa at 20 °C (68 °F)
l) Vapor density	0.6 - (Air = 1.0)
m) Density	0.7 g/cm3 at -33 °C (-27 °F) - liquid
Relative density	No data available
n) Water solubility	531 g/l at 20 °C (68 °F) - OECD Test Guideline 105
o) Partition coefficient:	Not applicable for inorganic substances

	n-octanol/water	
p)	Autoignition temperature	651 °C (1204 °F)
q)	Decomposition temperature	> 450 °C (> 842 °F) -
r)	Viscosity	No data available
s)	Explosive properties	No data available
t)	Oxidizing properties	none

9.2 Other safety information

Dissociation constant	9.25 at 25 °C (77 °F)
Relative vapor density	0.6 - (Air = 1.0)
Oxidation-reduction Potential	-3,090 mV

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions

Exothermic reaction with:

Acetaldehyde

Acrolein

boron triiodide

boron trifluoride

Bromine

hydrogen bromide

Hydrogen chloride gas

chromyl chloride

dimethylsulfate

nitrogen oxides

Hydrogen fluoride

Carbon dioxide (CO₂)

mercaptans

chlorates

nitryl compounds

Phosgene

Oxides of phosphorus

Acids

hydrogen sulphide

sulphur dioxide

chromium(VI) oxide

metal catalysts

Barium

halogen-halogen compounds

halogen compounds

hypochlorous acid

phosphorus hydrogen

tetra methylammonium amide

propinyl chloride

Ethylene oxide

polymerization

A risk of explosion and/or of toxic gas formation exists with the following substances:

Ammonium salts

antimony hydride

Calcium

Chlorine

Chlorites

Fluorine

halogens

perchlorates

sodium hypochlorite

strong oxidising agents

Mercury

mercury compounds

sulfur

silver

silver salt

silver oxide

hydrogen peroxide

nitrogen trichloride

azides

halogen oxides

Nitro compounds

chlorinated solvents

Hydrocarbons

with

Air

Oxygen

with

Catalyst

Risk of ignition or formation of inflammable gases or vapours with:

Boron

Boranes

Nitric acid

silicon-hydrogen

Generates dangerous gases or fumes in contact with:

Carbon monoxide

with

heat

Possible formation of:

Hydrogen cyanide (hydrocyanic acid)

10.4 Conditions to avoid

no information available

10.5 Incompatible materials

various metals

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

Oral: No data available

LC50 Inhalation - Rat - male - 4 h - 4.93 mg/l - vapor

Remarks: (ECHA)

Dermal: No data available

Skin corrosion/irritation

Skin - Rabbit

Result: Corrosive - 4 h

(OECD Test Guideline 404)

Remarks: (Regulation (EC) No 1272/2008, Annex VI)

Serious eye damage/eye irritation

Remarks: Causes serious eye damage.

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

Test Type: Ames test

Test system: Escherichia coli/Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: Micronucleus test

Species: Mouse

Cell type: Bone marrow

Application Route: Intraperitoneal

Method: OECD Test Guideline 474

Result: negative

Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: ammonium chloride

Carcinogenicity

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Additional Information

Repeated dose toxicity - Rat - male and female - Oral - 35 Days - NOAEL (No observed adverse effect level) - 250 mg/kg - LOAEL (Lowest observed adverse effect level) - 750 mg/kg

Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: diammonium hydrogenphosphate

RTECS: BO0875000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Liver - Irregularities - Based on Human Evidence

Liver - Irregularities - Based on Human Evidence

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish flow-through test LC50 - Pimephales promelas (fathead minnow) - 0.068 mg/l - 96 h
Remarks: (in analogy to similar products)
(ECHA)
The value is given in analogy to the following substances: ammonium sulphate

Toxicity to daphnia and other aquatic static test LC50 - Daphnia magna (Water flea) - 101 mg/l - 48 h
invertebrates Remarks: (ECHA)

EC50 - Daphnia pulicaria - 1.16 mg/l - 48 h
Remarks: (Lit.)

Toxicity to fish(Chronic toxicity) flow-through test NOEC - Ictalurus punctatus - 0.048 mg/l - 31 d
(OECD Test Guideline 215)

Toxicity to daphnia flow-through test LC50 - Daphnia magna (Water flea) - 4.07 mg/l -
Aldrich - 294993

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and other aquatic invertebrates(Chronic toxicity) 96 h
(US-EPA)
Remarks: (in analogy to similar products)
The value is given in analogy to the following substances: ammonium chloride

flow-through test NOEC - Daphnia magna (Water flea) - 0.79 mg/l - 96 h
(US-EPA)
Remarks: (in analogy to similar products)
The value is given in analogy to the following substances: ammonium chloride

12.2 Persistence and degradability

Biodegradability Result: - rapidly biodegradable
Remarks: Readily biodegradable.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. Pressurised gas bottle: dispose of only in empty condition!

SECTION 14: Transport information

DOT (US)

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operates as MilliporeSigma in the US and Canada



UN number: 1005 Class: 2.3 (8)
Proper shipping name: Ammonia, anhydrous
Reportable Quantity (RQ): 100 lbs
Marine pollutant: yes Poison Inhalation Hazard: Hazard Zone D

IMDG

UN number: 1005 Class: 2.3 (8) EMS-No: F-C, S-U
Proper shipping name: AMMONIA, ANHYDROUS
Marine pollutant : yes
Marine pollutant : yes

IATA

UN number: 1005 Class: 2.3 (8)
Proper shipping name: Ammonia, anhydrous
IATA Passenger: Not permitted for transport
IATA Cargo: Not permitted for transport

SECTION 15: Regulatory information**CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
ammonia anhydrous	7664-41-7	100	100

SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
ammonia anhydrous	7664-41-7	100	100

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

Components	CAS-No.	Component TPQ (lbs)
ammonia anhydrous	7664-41-7	500

SARA 311/312 Hazards : Sudden Release of Pressure Hazard
Acute Health Hazard
Chronic Health Hazard

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

ammonia anhydrous 7664-41-7 >= 90 - <= 100 %

US State Regulations**Massachusetts Right To Know**

ammonia anhydrous 7664-41-7

Pennsylvania Right To Know

ammonia anhydrous 7664-41-7

Maine Chemicals of High Concern

Product does not contain any listed chemicals

Vermont Chemicals of High Concern

Product does not contain any listed chemicals

Washington Chemicals of High Concern

Product does not contain any listed chemicals

The ingredients of this product are reported in the following inventories:

TSCA : All substances listed as active on the TSCA inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16: Other information

Further information

The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture and is applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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The branding on the header and/or footer of this document may temporarily not visually match the product purchased as we transition our branding. However, all of the information in the document regarding the product remains unchanged and matches the product ordered. For further information please contact mlsbranding@sial.com.

Version: 6.11

Revision Date: 09/06/2024

Print Date: 09/07/2024



Safety Data Sheet

acc. to 29 CFR 1910.1200 App D

Armor All Extreme Wheel & Tire Cleaner - Spray

Version number: 5.0
Replaces version of: 2021-03-03 (4)

Revision: 2021-08-05

SECTION 1: Identification

1.1 Product identifier

Trade name **Armor All Extreme Wheel & Tire Cleaner - Spray**
Alternative number(s) 070612780904, 070612780119, 070612183941,
070612172358, 070612179739, 70612780904

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses General use
Uses advised against Do not use for squirting or spraying. Do not use for products which come into direct contact with the skin.

1.3 Details of the supplier of the safety data sheet

Energizer Manufacturing, Inc.
25225 Detroit Rd.
Westlake OH 44145
United States

Telephone: 800-383-7323; 314-985-2000 (USA / CANADA)
Website: <http://data.energizer.com>

1.4 Emergency telephone number

Emergency information service 1-314-985-1511 Int'l: 1-800-526-4727
This number is only available during the following office hours: Mon-Fri 09:00 AM - 05:00 PM

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Section	Hazard class	Category	Hazard class and category	Hazard statement
A.2	skin corrosion/irritation	1	Skin Corr. 1	H314
A.3	serious eye damage/eye irritation	1	Eye Dam. 1	H318

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

Skin corrosion produces an irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis.

2.2 Label elements



Safety Data Sheet

acc. to 29 CFR 1910.1200 App D

Armor All Extreme Wheel & Tire Cleaner - Spray

Version number: 5.0
Replaces version of: 2021-03-03 (4)

Revision: 2021-08-05

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word danger

- Pictograms

GHS05



- Hazard statements

H314 Causes severe skin burns and eye damage.

- Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P260 Do not breathe dusts or mists.

P280 Wear eye protection/face protection.

P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a poison center/doctor.

P321 Specific treatment (see on this label).

P363 Wash contaminated clothing before reuse.

P405 Store locked up.

P501 Dispose of contents/container in accordance with national regulations.

- Hazardous ingredients for labelling

Diethylene glycol monohexyl ether

2.3 Other hazards

of no significance

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
Diethylene glycol monohexyl ether	CAS No 112-59-4	1 - < 5	Acute Tox. 4 / H312 Eye Dam. 1 / H318	



Safety Data Sheet

acc. to 29 CFR 1910.1200 App D

Armor All Extreme Wheel & Tire Cleaner - Spray

Version number: 5.0
Replaces version of: 2021-03-03 (4)

Revision: 2021-08-05

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
disodium metasilicate	CAS No 6834-92-0	< 1	Acute Tox. 4 / H302 Acute Tox. 3 / H331 Skin Corr. 1B / H314 STOT SE 3 / H335	

For full text of abbreviations: see SECTION 16.

SECTION 4: First-aid measures

4.1 Description of first-aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO2)

Unsuitable extinguishing media

Water jet



Safety Data Sheet

acc. to 29 CFR 1910.1200 App D

Armor All Extreme Wheel & Tire Cleaner - Spray

Version number: 5.0
Replaces version of: 2021-03-03 (4)

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5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Nitrogen oxides (NOx)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas. Never add water to this product.



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- Handling of incompatible substances or mixtures
Do not mix with acids.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Control of the effects

Protect against external exposure, such as
frost

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

This information is not available.

Relevant DNELs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Diethylene glycol monohexyl ether	112-59-4	DNEL	16.3 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
Diethylene glycol monohexyl ether	112-59-4	DNEL	50 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

Relevant PNECs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
Diethylene glycol monohexyl ether	112-59-4	PNEC	1.963 mg/l	aquatic organisms	freshwater	short-term (single instance)
Diethylene glycol monohexyl ether	112-59-4	PNEC	0.196 mg/l	aquatic organisms	marine water	short-term (single instance)
Diethylene glycol monohexyl ether	112-59-4	PNEC	10 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Diethylene glycol monohexyl ether	112-59-4	PNEC	10.7 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)



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Relevant PNECs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
Diethylene glycol monohexyl ether	112-59-4	PNEC	1.07 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Diethylene glycol monohexyl ether	112-59-4	PNEC	0.995 mg/kg	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	liquid
Color	not determined
Particle	not relevant (liquid)



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Odor	characteristic
------	----------------

Other safety parameters

pH (value)	12.2 – 13.2 (base)
Melting point/freezing point	not determined
Initial boiling point and boiling range	100 °C
Flash point	not determined
Evaporation rate	Not determined
Flammability (solid, gas)	not relevant, (fluid)
Vapor pressure	0.999 hPa at 87.46 °C
Density	not determined
Vapor density	this information is not available
Relative density	Information on this property is not available
Solubility(ies)	not determined

Partition coefficient

- n-octanol/water (log KOW)	this information is not available
Auto-ignition temperature	not determined
Viscosity	not determined
Explosive properties	none
Oxidizing properties	none

9.2	Other information	there is no additional information
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SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

There is no additional information.

Release of flammable materials with:

Light metals (due to the release of hydrogen in an acid/alkaline medium)

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Shall not be classified as acutely toxic.

Acute toxicity estimate (ATE) of components of the mixture			
Name of substance	CAS No	Exposure route	ATE
Diethylene glycol monohexyl ether	112-59-4	dermal	1,100 mg/kg
disodium metasilicate	6834-92-0	oral	770 mg/kg
disodium metasilicate	6834-92-0	inhalation: vapor	>2.06 mg;/4h
disodium metasilicate	6834-92-0	inhalation: dust/mist	0.5 mg;/4h



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Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitization

Shall not be classified as a respiratory or skin sensitizer.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Endocrine disrupting properties

None of the ingredients are listed.

12.7 Other adverse effects

Data are not available.



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SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number	not subject to transport regulations
14.2 UN proper shipping name	not relevant
14.3 Transport hazard class(es)	not assigned
14.4 Packing group	not assigned
14.5 Environmental hazards	non-environmentally hazardous acc. to the dangerous goods regulations
14.6 Special precautions for user	There is no additional information.
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code	The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

DOT

Transport of dangerous goods by road or rail (49 CFR US DOT) - Additional information

Not subject to transport regulations.

International Maritime Dangerous Goods Code (IMDG) - Additional information

Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Not subject to ICAO-IATA.



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SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

National regulations (United States)

Toxic Substance Control Act (TSCA) all ingredients are listed

Right to Know Hazardous Substance List

- Cleaning Product Right to Know Act Substance List (CA-RTK)

Name of substance	CAS No	Functionality	Authoritative Lists
Water	7732-18-5	solvents	
Diethylene glycol monohexyl ether		solvents	CA TACs
n-[3-(Dimethylnitroaryl)propyl]dodecanamide	61792-31-2	surfactant	
Tetrasodium ethylenediamine tetraacetate	64-02-8	chelating agent	
disodium metasilicate	6834-92-0	pH Adjuster	
Sodium Caprylyl Sulfonate	5324-84-5	surfactant	
Myristamidopropylamine oxide	67806-10-4	surfactant	
Hexoxyethanol		surfactant	CA TACs
isopropyl alcohol	67-63-0	solvents	OEHHA RELs
Sodium sulfate	7757-82-6	filler	
Sodium Glycolate	2836-32-0	gelling agent	
sodium hydroxide	1310-73-2	pH Adjuster	OEHHA RELs
hydrogen peroxide	7722-84-1	oxidizer	
Triethylene glycol	112-27-6	solvents	
diethylene glycol	111-46-6	solvents	
Trisodium NTA	5064-31-3	chelating agent	

- Toxic or Hazardous Substance List (MA-TURA)

Name of substance	CAS No	DEP CODE	PBT / HHS / LHS	PBT / HHS Threshold	De Minimis Concentration Threshold
Diethylene glycol monohexyl ether		1022			1.0 %



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- Hazardous Substance List (NJ-RTK)

Name of substance	CAS No	Remarks	Classifications
Diethylene glycol monohexyl ether			

- Hazardous Substance List (Chapter 323) (PA-RTK)

Name acc. to inventory	CAS No	Classification
GLYCOL ETHERS		E

Legend

E Environmental hazard

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

Proposition 65 List of chemicals			
Name acc. to inventory	CAS No	Remarks	Type of the toxicity
formaldehyde	50-00-0	gas	cancer
methanol	67-56-1		developmental

Drug precursors, Chemicals designated within the Controlled Substances Act, 21 U.S.C. § 802, paragraphs 34 (list I) and 35 (list II)

none of the ingredients are listed

Industry or sector specific available guidance(s)

NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.

Category	Rating	Description
Chronic	*	chronic (long-term) health effects may result from repeated overexposure
Health	3	major injury likely unless prompt action is taken and medical treatment is given
Flammability	0	material that will not burn under typical fire conditions
Physical hazard	0	material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive
Personal protection	-	

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).



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Category	Degree of hazard	Description
Flammability	1	material that must be preheated before ignition can occur
Health	3	material that, under emergency conditions, can cause serious or permanent injury
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

National inventories

Country	Inventory	Status
AU	AICS	all ingredients are listed
CA	DSL	not all ingredients are listed
CA	NDSL	not all ingredients are listed
CN	IECSC	not all ingredients are listed
EU	ECSI	all ingredients are listed
EU	REACH Reg.	not all ingredients are listed
JP	CSCL-ENCS	not all ingredients are listed
JP	ISHA-ENCS	not all ingredients are listed
KR	KECI	not all ingredients are listed
MX	INSQ	not all ingredients are listed
NZ	NZIoC	not all ingredients are listed
PH	PICCS	not all ingredients are listed
TR	CICR	not all ingredients are listed
TW	TCSI	all ingredients are listed
US	TSCA	all ingredients are listed

Legend

AICS	Australian Inventory of Chemical Substances
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
INSQ	National Inventory of Chemical Substances
ISHA-ENCS	Inventory of Existing and New Chemical Substances (ISHA-ENCS)
KECI	Korea Existing Chemicals Inventory
NDSL	Non-domestic Substances List (NDSL)
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory



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Legend

TSCA Toxic Substance Control Act

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information, including date of preparation or last revision

Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
9.1	Color: various	Color: not determined	yes
9.1		Particle: not relevant (liquid)	yes
11.1		Acute toxicity estimate (ATE) of components of the mixture: change in the listing (table)	yes
14.2	UN proper shipping name: not assigned	UN proper shipping name: not relevant	yes
15.1		Cleaning Product Right to Know Act Substance List (CA-RTK): change in the listing (table)	yes
15.1		Toxic or Hazardous Substance List (MA-TURA): change in the listing (table)	yes
15.1		Hazardous Substance List (NJ-RTK): change in the listing (table)	yes
15.1		Hazardous Substance List (Chapter 323) (PA-RTK): change in the listing (table)	yes
15.1	California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987: The presence of Prop 65 chemicals in the product does not indicate whether or not a label warning is required.	California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987	yes
15.1		NFPA® 704: change in the listing (table)	yes



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Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
49 CFR US DOT	49 CFR U.S. Department of Transportation
Acute Tox.	Acute toxicity
ATE	Acute Toxicity Estimate
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
DEP CODE	Department of Environmental Protection Code
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
DOT	Department of Transportation (USA)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
HHS	Higher hazard substance
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
LHS	Lower hazard substance
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NLP	No-Longer Polymer
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin



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Abbr.	Descriptions of used abbreviations
STOT SE	Specific target organ toxicity - single exposure
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.



SAFETY DATA SHEET

1. Identification

Product identifier	Engine Assembly Lube
Other means of identification	
Product Code	No. SL3333 (Item# 1007914)
Recommended use	Engine assembly lubricant
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Manufactured or sold by:	
Company name	CRC Industries, Inc.
Address	885 Louis Dr. Warminster, PA 18974 US
Telephone	
General Information	215-674-4300
Technical Assistance	800-521-3168
Customer Service	800-272-4620
24-Hour Emergency (CHEMTREC)	800-424-9300 (US) 703-527-3887 (International)
Website	www.crcindustries.com

2. Hazard(s) identification

Physical hazards	Not classified.
Health hazards	Not classified.
Environmental hazards	Not classified.
OSHA defined hazards	Not classified.
Label elements	
Hazard symbol	None.
Signal word	None.
Hazard statement	The mixture does not meet the criteria for classification.
Precautionary statement	
Prevention	Observe good industrial hygiene practices.
Response	Wash hands after handling.
Storage	Store away from incompatible materials.
Disposal	Dispose of contents/container in accordance with local/regional/national regulations.
Hazard(s) not otherwise classified (HNOC)	None known.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
distillates (petroleum), hydrotreated heavy naphthenic		64742-52-5	50 - 60
residual oils (petroleum), solvent-dewaxed		64742-62-7	40 - 50
graphite		7782-42-5	< 1

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
Skin contact	Remove and isolate contaminated clothing and shoes. Immediately flush skin with plenty of water. Get medical attention if irritation develops and persists.
Eye contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Do not induce vomiting without advice from poison control center. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Never give anything by mouth to a victim who is unconscious or is having convulsions. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation. Prolonged or repeated skin contact may cause irritation.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire-fighting equipment/instructions	Use water spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Ensure adequate ventilation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Sweep up or vacuum up spillage and collect in suitable container for disposal. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Keep away from heat and sources of ignition. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices. Use care in handling/storage. For product usage instructions, see the product label.
Conditions for safe storage, including any incompatibilities	Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Keep container tightly closed. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	PEL	5 mg/m ³ 2000 mg/m ³	Mist.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
graphite (CAS 7782-42-5)	PEL	500 ppm	
		5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value
graphite (CAS 7782-42-5)	TWA	15 mppcf

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	TWA	5 mg/m3	Inhalable fraction.
graphite (CAS 7782-42-5)	TWA	2 mg/m3	Respirable fraction.
residual oils (petroleum), solvent-dewaxed (CAS 64742-62-7)	TWA	5 mg/m3	Inhalable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	Ceiling	1800 mg/m3	
graphite (CAS 7782-42-5)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
	TWA	2.5 mg/m3	Respirable.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment**Eye/face protection** Wear safety glasses with side shields (or goggles).**Skin protection****Hand protection** Wear protective gloves such as: Neoprene. Nitrile. Polyethylene. Polyvinyl chloride (PVC).**Other** Wear suitable protective clothing.**Respiratory protection**

If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties**Appearance****Physical state** Solid.**Form** Grease.**Color** Black.**Odor** Mild petroleum.**Odor threshold** Not available.**pH** Not available.**Melting point/freezing point** Not available.

Initial boiling point and boiling range 680 °F (360 °C) estimated

Flash point 450 °F (232.2 °C)

Evaporation rate Slow.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Vapor pressure < 0.1 mm Hg @ 68 °F

Vapor density > 5 (air = 1)

Relative density 0.9

Solubility (water) Insoluble.

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature 500 °F (260 °C) estimated

Decomposition temperature Not available.

Viscosity (kinematic) Not available.

Percent volatile Not available.

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.

Conditions to avoid Contact with incompatible materials.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition products Carbon oxides. Metal oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation Prolonged inhalation may be harmful.

Skin contact Prolonged skin contact may cause temporary irritation.

Eye contact Direct contact with eyes may cause temporary irritation.

Ingestion Health injuries are not known or expected under normal use.

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity Not known.

Product	Species	Test Results
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Engine Assembly Lube

Acute

Dermal

ATEmix

2140.0856 mg/kg

Components	Species	Test Results
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distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)

Acute

Dermal

LD50

Rabbit

> 2000 mg/kg

Components	Species	Test Results		
Oral LD50 graphite (CAS 7782-42-5)	Rat	> 5000 mg/kg		
Acute Oral LD50	Rat	> 10000 mg/kg		
* Estimates for product may be based on additional component data not shown.				
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.			
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.			
Respiratory sensitization	Not a respiratory sensitizer.			
Skin sensitization	This product is not expected to cause skin sensitization.			
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.			
Carcinogenicity	Not classifiable as to carcinogenicity to humans.			
IARC Monographs. Overall Evaluation of Carcinogenicity				
Not listed.				
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)				
Not regulated.				
US. National Toxicology Program (NTP) Report on Carcinogens				
Not listed.				
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.			
Specific target organ toxicity - single exposure	Not classified.			
Specific target organ toxicity - repeated exposure	Not classified.			
Aspiration hazard	Not an aspiration hazard.			
Chronic effects	Prolonged inhalation may be harmful.			
Further information	This product has no known adverse effect on human health.			

12. Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
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Components	Species	Test Results
distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia magna)
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss)
graphite (CAS 7782-42-5)		
Aquatic		
Acute		
Fish	LC50	Fish
		> 1800 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability

Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal of waste from residues / unused products	This product is not a RCRA hazardous waste (See 40 CFR Part 261.20 – 261.33). Empty containers may be recycled. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose in accordance with all applicable regulations.
Hazardous waste code	Not regulated.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory information

US federal regulations	This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
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TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

CERCLA Hazardous Substances: Reportable quantity

Not listed.

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

Food and Drug Administration (FDA)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 311/312 Hazard categories	Immediate Hazard - No Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
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SARA 302 Extremely hazardous substance

No

US state regulations

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)
residual oils (petroleum), solvent-dewaxed (CAS 64742-62-7)

US. New Jersey Worker and Community Right-to-Know Act

graphite (CAS 7782-42-5)

US. Massachusetts RTK - Substance List

graphite (CAS 7782-42-5)

US. Pennsylvania Worker and Community Right-to-Know Law

graphite (CAS 7782-42-5)

US. Rhode Island RTKdistillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)
graphite (CAS 7782-42-5)**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

Volatile organic compounds (VOC) regulations**EPA****VOC content (40 CFR 51.100(s))** 100 %**Consumer products (40 CFR 59, Subpt. C)** Not regulated**State****Consumer products** Not regulated**VOC content (CA)** < 0.1 %**VOC content (OTC)** < 0.1 %**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision**Issue date** 10-23-2017**Prepared by** Allison Yoon**Version #** 01**Further information** Not available.**HMIS® ratings**
Health: 1
Flammability: 1
Physical hazard: 0
Personal protection: B**NFPA ratings**
Health: 1
Flammability: 1
Instability: 0

NFPA ratings



Disclaimer

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC's knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or CRC Industries, Inc..

1. Identification

Product identifier Battery Terminal Protector - 7.5 oz

Other means of identification

Product Code No. 05046 (Item# 1003657)

Recommended use Battery terminal protector

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufactured or sold by:

Company name CRC Industries, Inc.

Address 885 Louis Dr.

Warminster, PA 18974 US

Telephone 800-556-5074

24-Hour Emergency (CHEMTREC) 800-424-9300 (US)

Website crcindustries.com

2. Hazard(s) identification

Physical hazards	Flammable aerosols Gases under pressure	Category 1 Liquefied gas
Health hazards	Skin corrosion/irritation Carcinogenicity Reproductive toxicity Specific target organ toxicity, single exposure Specific target organ toxicity, repeated exposure Aspiration hazard	Category 2 Category 2 Category 2 Category 3 narcotic effects Category 2 (central nervous system, hearing organs, kidney, liver) Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard Hazardous to the aquatic environment, long-term hazard	Category 2 Category 2
OSHA defined hazards	Not classified.	

Label elements



Signal word

Danger

Hazard statement

Extremely flammable aerosol. Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways. Causes skin irritation. May cause drowsiness or dizziness. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs (central nervous system, hearing organs, kidney, liver) through prolonged or repeated exposure.

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not apply while equipment is energized. Extinguish all flames, pilot lights, and heaters. Vapors will accumulate readily and may ignite. Use only outdoors or in a well-ventilated area. Maintain ventilation during use and until all vapors are gone. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Do not breathe mist/vapors. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

Response

If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. If exposed or concerned: Get medical advice/attention.

Storage

Store in a well-ventilated place. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Exposure to high temperature may cause can to burst.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

Supplemental information

None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
naphtha (petroleum), hydrotreated light		64742-49-0	30 - 40
liquefied petroleum gas		68476-86-8	25 - 35
heptane, branched, cyclic and linear		426260-76-6	5 - 15
n-heptane		142-82-5	5 - 15
petrolatum		8009-03-8	5 - 15
solvent naphtha (petroleum), light aliph.		64742-89-8	1 - 5
xylene		1330-20-7	1 - 5
ethylbenzene		100-41-4	0.5 - 1.5
distillates (petroleum), hydrotreated heavy paraffinic		64742-54-7	0.1 - 1
distillates (petroleum), solvent-dewaxed heavy paraffinic		64742-65-0	0.1 - 1
n-hexane		110-54-3	0.1 - 1
paraffin oils (petroleum), catalytic dewaxed heavy		64742-70-7	0.1 - 1
paraffin oils (petroleum), catalytic dewaxed light		64742-71-8	0.1 - 1

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

Skin contact

Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact

Rinse with water. Get medical attention if irritation develops and persists.

Ingestion

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and delayed

Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness or dizziness. Narcosis. Headache. Nausea, vomiting. Behavioral changes. Decrease in motor functions. Skin irritation. May cause redness and pain. Edema. Jaundice. Prolonged exposure may cause chronic effects.

Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Carbon dioxide (CO ₂). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may rupture when exposed to heat or flame. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire-fighting equipment/instructions	In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. Use standard firefighting procedures and consider the hazards of other involved materials. In the event of fire and/or explosion do not breathe fumes.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. In the event of fire and/or explosion do not breathe fumes.
General fire hazards	Extremely flammable aerosol. Contents under pressure. Pressurized container may rupture when exposed to heat or flame.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Remove all possible sources of ignition in the surrounding area. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapors. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Prevent product from entering drains. Stop the flow of material, if this is without risk. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. Do not breathe mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices. For product usage instructions, see the product label.
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**Conditions for safe storage,
including any incompatibilities**

Level 3 Aerosol.

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Avoid spark promoters. These alone may be insufficient to remove static electricity. Store in tightly closed container. Store in a well-ventilated place. Stored containers should be periodically checked for general condition and leakage. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection**Occupational exposure limits**

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

U.S. - OSHA

Components	Type	Value
distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	TWA	5 mg/m3

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	PEL	5 mg/m3	Mist.
distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)	PEL	5 mg/m3	Mist.
		2000 mg/m3	
		500 ppm	
ethylbenzene (CAS 100-41-4)	PEL	435 mg/m3	
		100 ppm	
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	PEL	400 mg/m3	
		100 ppm	
n-heptane (CAS 142-82-5)	PEL	2000 mg/m3	
		500 ppm	
n-hexane (CAS 110-54-3)	PEL	1800 mg/m3	
		500 ppm	
paraffin oils (petroleum), catalytic dewaxed heavy (CAS 64742-70-7)	PEL	5 mg/m3	Mist.
paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)	PEL	5 mg/m3	Mist.
petrolatum (CAS 8009-03-8)	PEL	5 mg/m3	Mist.
solvent naphtha (petroleum), light aliph. (CAS 64742-89-8)	PEL	400 mg/m3	
		100 ppm	
xylene (CAS 1330-20-7)	PEL	435 mg/m3	
		100 ppm	

ACGIH

Components	Type	Value	Form
distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	TWA	5 mg/m3	Inhalable fraction

U.S. ACGIH Threshold Limit Values				
Components	Type		Value	Form
distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	TWA		5 mg/m3	Inhalable fraction.
distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)	TWA		5 mg/m3	Inhalable fraction.
ethylbenzene (CAS 100-41-4)	TWA		20 ppm	
n-heptane (CAS 142-82-5)	STEL		500 ppm	
	TWA		400 ppm	
n-hexane (CAS 110-54-3)	TWA		50 ppm	
paraffin oils (petroleum), catalytic dewaxed heavy (CAS 64742-70-7)	TWA		5 mg/m3	Inhalable fraction.
paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)	TWA		5 mg/m3	Inhalable fraction.
petrolatum (CAS 8009-03-8)	TWA		5 mg/m3	Inhalable fraction.
xylene (CAS 1330-20-7)	STEL		150 ppm	
	TWA		100 ppm	
U.S. - NIOSH Components		Type	Value	Form
distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	STEL		10 mg/m3	Mist
	TWA		5 mg/m3	Mist
US. NIOSH: Pocket Guide to Chemical Hazards Components		Type	Value	Form
distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	STEL		10 mg/m3	Mist.
	TWA		5 mg/m3	Mist.
distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)	Ceiling		1800 mg/m3	
	STEL		10 mg/m3	Mist.
	TWA		5 mg/m3	Mist.
ethylbenzene (CAS 100-41-4)	STEL		545 mg/m3	
	TWA		125 ppm	
			435 mg/m3	
			100 ppm	
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	TWA		400 mg/m3	
			100 ppm	
n-heptane (CAS 142-82-5)	Ceiling		1800 mg/m3	
			440 ppm	
	TWA		350 mg/m3	
			85 ppm	
n-hexane (CAS 110-54-3)	TWA		180 mg/m3	
			50 ppm	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
paraffin oils (petroleum), catalytic dewaxed heavy (CAS 64742-70-7)	STEL	10 mg/m3	Mist.
paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)	TWA	5 mg/m3	Mist.
	STEL	10 mg/m3	Mist.
petrolatum (CAS 8009-03-8)	TWA	5 mg/m3	Mist.
	STEL	10 mg/m3	Mist.
solvent naphtha (petroleum), light aliph. (CAS 64742-89-8)	TWA	400 mg/m3	
xylene (CAS 1330-20-7)		100 ppm	
	STEL	655 mg/m3	
		150 ppm	
	TWA	435 mg/m3	
		100 ppm	

Biological limit values
ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
ethylbenzene (CAS 100-41-4)	0.15 g/g	Sum of mandelic acid and phenylglyoxylic acid	Creatinine in urine	*
n-hexane (CAS 110-54-3)	0.5 mg/l	2,5-Hexanedione, without hydrolysis	Urine	*
xylene (CAS 1330-20-7)	1.5 g/g	Methylhippuric acids	Creatinine in urine	*

* - For sampling details, please see the source document.

Exposure guidelines
US - California OELs: Skin designation

n-hexane (CAS 110-54-3) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

n-hexane (CAS 110-54-3) Danger of cutaneous absorption

Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear protective gloves such as: Laminate film. Nitrile. Neoprene. Polyvinyl alcohol (PVA). Fluoroelastomer.

Other Wear appropriate chemical resistant clothing.

Respiratory protection If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Aerosol.
Color	Dark red.
Odor	Petroleum.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	-132 °F (-91.1 °C) estimated
Initial boiling point and boiling range	123.8 °F (51 °C) estimated
Flash point	-0.0009 °F (-17.8 °C) estimated
Evaporation rate	Fast.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	0.6 % estimated
Explosive limit - upper (%)	7.6 % estimated
Vapor pressure	1538.5 hPa estimated
Vapor density	Not available.
Relative density	0.73 estimated
Solubility(ies)	
Solubility (water)	Negligible.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	433 °F (222.8 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Percent volatile	71.8 % estimated
VOC-State Aerosol Coatings (MIR)	1.253

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat. Contact with incompatible materials.
Incompatible materials	Strong acids. Strong oxidizing agents. Halogens.
Hazardous decomposition products	Carbon oxides. Formaldehyde. Mercaptans. Nitrogen oxides (NOx). Sodium oxides. Sulfides. Sulfur oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause drowsiness or dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Direct contact with eyes may cause temporary irritation.

Ingestion Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness or dizziness. Narcosis. Headache. Nausea, vomiting. Behavioral changes. Decrease in motor functions. Skin irritation. May cause redness and pain. Edema. Jaundice.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways.

Components	Species	Test Results
distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)		

Acute

Dermal

LD50 Rabbit > 5000 mg/kg

Oral

LD50 Rat 5 g/kg

distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)

Acute

Dermal

LD50 Rabbit > 5000 mg/kg

Oral

LD50 Rat > 5000 mg/kg

ethylbenzene (CAS 100-41-4)

Acute

Dermal

LD50 Rabbit > 2000 mg/kg

Inhalation

LC50 Rat 17.19999999999999 mg/l, 4 hours

Oral

LD50 Rat 3500 mg/kg

heptane, branched, cyclic and linear (CAS 426260-76-6)

Acute

Dermal

LD50 Rabbit > 2000 mg/kg

Inhalation

LC50 Rat > 60 mg/l, 4 hours

Oral

LD50 Rat > 5000 mg/kg

naphtha (petroleum), hydrotreated light (CAS 64742-49-0)

Acute

Dermal

LD50 Rat > 2000 mg/kg

Inhalation

Vapor LC50 Rat > 5.200000000000002 mg/l, 4 hours

Oral

LD50 Rat > 5000 mg/kg

n-heptane (CAS 142-82-5)

Acute

Dermal

LD50 Rabbit > 2000 mg/kg

Inhalation

LC50 Rat 103 mg/m3, 4 Hours

Components	Species	Test Results
Oral LD50	Rat	> 5000 mg/kg
n-hexane (CAS 110-54-3)		
Acute		
Dermal LD50	Rabbit	> 1300 mg/kg
Inhalation		
<i>Vapor</i> LC50	Rat	627000 mg/m ³ , 3 minutes
Oral LD50	Rat	15840 mg/kg
paraffin oils (petroleum), catalytic dewaxed heavy (CAS 64742-70-7)		
Acute		
Dermal LD50	Rabbit	> 2000 mg/kg
Oral LD50	Rat	> 5000 mg/kg
paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)		
Acute		
Dermal LD50	Rabbit	> 2000 mg/kg
Oral LD50	Rat	> 5000 mg/kg
petrolatum (CAS 8009-03-8)		
Acute		
Dermal LD50	Rabbit	> 2000 mg/kg
Oral LD50	Rat	> 5000 mg/kg
solvent naphtha (petroleum), light aliph. (CAS 64742-89-8)		
Acute		
Dermal LD50	Rabbit	> 5 mg/kg
Inhalation		
<i>Vapor</i> LC50	Rat	> 73.5 mg/l, 4 hours
Oral LD50	Rat	> 3000 mg/kg
xylene (CAS 1330-20-7)		
Acute		
Dermal LD50	Rabbit	1700 mg/kg
Inhalation		
LC50	Rat	29 mg/l, 4 hours
Oral LD50	Rat	3500 mg/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.	

Respiratory or skin sensitization

Respiratory sensitization	Based on available data, the classification criteria are not met.
Skin sensitization	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Suspected of causing cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

distillates (petroleum), hydrotreated heavy paraffinic (CAS 64742-54-7)	3 Not classifiable as to carcinogenicity to humans.
distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)	3 Not classifiable as to carcinogenicity to humans.
ethylbenzene (CAS 100-41-4)	2B Possibly carcinogenic to humans.
paraffin oils (petroleum), catalytic dewaxed heavy (CAS 64742-70-7)	3 Not classifiable as to carcinogenicity to humans.
paraffin oils (petroleum), catalytic dewaxed light (CAS 64742-71-8)	3 Not classifiable as to carcinogenicity to humans.
petrolatum (CAS 8009-03-8)	3 Not classifiable as to carcinogenicity to humans.
xylene (CAS 1330-20-7)	3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity	Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals. Suspected of damaging fertility or the unborn child.
Specific target organ toxicity - single exposure	May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure	May cause damage to organs (central nervous system, hearing organs, kidney, liver) through prolonged or repeated exposure.
Aspiration hazard	May be fatal if swallowed and enters airways.
Chronic effects	Prolonged inhalation may be harmful. May cause damage to organs through prolonged or repeated exposure. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Components	Species	Test Results
n-hexane (CAS 110-54-3)		
Aquatic		
Acute		
Fish	LC50	Fathead minnow (Pimephales promelas) 2500 µg/l, 96 hours

Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

ethylbenzene	3.15
n-heptane	4.66
n-hexane	3.9

Bioconcentration factor (BCF)

ethylbenzene	1
naphtha (petroleum), hydrotreated light	10 - 2500
n-hexane	501.187
xylene	23.99

Mobility in soil

No data available.

Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	The dispensed liquid product is a RCRA hazardous waste for the characteristic of ignitability with a waste code of D001 (See 40 CFR Part 261.20 – 261.33). Full or partially-full aerosol cans can be treated as universal waste. Empty container can be recycled. Contents under pressure. Do not incinerate sealed containers. Incinerate the material under controlled conditions in an approved incinerator. Dispose of this material and its container to hazardous or special waste collection point. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose in accordance with all applicable regulations.
Hazardous waste code	Possible RCRA waste code includes: D001: Waste Flammable material with a flash point <140 F However, it is the generator's responsibility to determine the proper classification and disposal method at the time of disposal.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

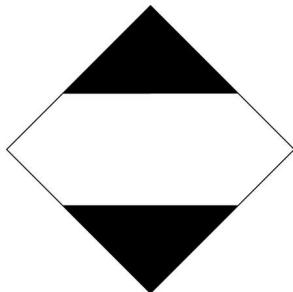
UN number	UN1950
UN proper shipping name	Aerosols, flammable, Limited Quantity
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not assigned.
Environmental hazards	
Marine pollutant	Yes, but exempt from the regulations.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	N82
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

IATA

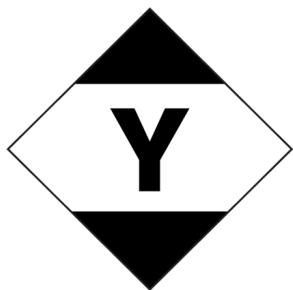
UN number	UN1950
UN proper shipping name	Aerosols, flammable, Limited Quantity
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Packing group	Not assigned.
ERG Code	10L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

UN number	UN1950
UN proper shipping name	AEROSOLS, Limited Quantity
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Packing group	Not assigned.
Environmental hazards	
Marine pollutant	Yes, but exempt from the regulations.
EmS	F-D, S-U
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.



IATA



15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

ethylbenzene (CAS 100-41-4)

xylene (CAS 1330-20-7)

CERCLA Hazardous Substances: Reportable quantity

ethylbenzene (CAS 100-41-4)	1000 LBS
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xylene (CAS 1330-20-7)	100 LBS
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Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

ethylbenzene (CAS 100-41-4)

n-hexane (CAS 110-54-3)

xylene (CAS 1330-20-7)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Contains component(s) regulated under the Safe Drinking Water Act.

Food and Drug Administration (FDA) Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Classified hazard categories	Flammable (gases, aerosols, liquids, or solids) Gas under pressure Skin corrosion or irritation Carcinogenicity Reproductive toxicity Specific target organ toxicity (single or repeated exposure) Aspiration hazard Hazard not otherwise classified (HNOC)
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SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
ethylbenzene	100-41-4	0.5 - 1.5
n-hexane	110-54-3	0.1 - 1
xylene	1330-20-7	1 - 5

US state regulations**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil - unspecified (CAS 64742-54-7)
 Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil - unspecified (CAS 64742-65-0)
 Ethylbenzene (CAS 100-41-4)
 Heptane (CAS 142-82-5)
 Naphtha (petroleum), hydrotreated light; Low boiling point hydrogen treated naphtha (CAS 64742-49-0)
 n-Hexane (CAS 110-54-3)
 Paraffin oils (petroleum) (CAS 8009-03-8)
 Paraffin oils (petroleum), catalytic dewaxed light; Baseoil - unspecified (CAS 64742-70-7)
 Paraffin oils (petroleum), catalytic dewaxed light; Baseoil - unspecified (CAS 64742-71-8)
 Solvent naphtha (petroleum), light aliph.; Low boiling point naphtha (CAS 64742-89-8)
 Xylenes; [o-xylene (95-47-6), m-xylene(108-38-3)and p-xylene (106-42-3)] (CAS 1330-20-7)

US. New Jersey Worker and Community Right-to-Know Act

ETHYL BENZENE (CAS 100-41-4)
 NAPHTHA (CAS 64742-49-0)
 NAPHTHA (CAS 64742-89-8)
 N-HEPTANE (CAS 142-82-5)
 N-HEXANE (CAS 110-54-3)
 XYLEMES (CAS 1330-20-7)

US. Massachusetts RTK - Substance List

Dimethylbenzene (CAS 1330-20-7)
 Ethylbenzene (CAS 100-41-4)
 Mineral oil, petroleum paraffin oils, catalytic dewaxed heavy (CAS 64742-70-7)
 Mineral oil, petroleum paraffin oils, catalytic dewaxed light (CAS 64742-71-8)
 Naphtha (CAS 64742-49-0)
 Naphtha (CAS 64742-89-8)
 n-Heptane (CAS 142-82-5)
 n-Hexane (CAS 110-54-3)
 Oil mist (mineral) (CAS 64742-54-7)
 Oil mist (mineral) (CAS 8009-03-8)

US. Pennsylvania Worker and Community Right-to-Know Law

Benzene, dimethyl (CAS 1330-20-7)
 Benzene, ethyl- (CAS 100-41-4)
 Heptane (CAS 142-82-5)
 Hexane (CAS 110-54-3)
 Mineral oil mist (CAS 64742-54-7)
 Mineral oil mist (CAS 64742-70-7)
 Mineral oil mist (CAS 64742-71-8)
 Mineral oil mist (CAS 8009-03-8)
 Naphtha (CAS 64742-49-0)
 Naphtha (CAS 64742-89-8)

US. Rhode Island RTK

Dimethylbenzene (CAS 1330-20-7)
 ETHYL BENZENE (CAS 100-41-4)
 HEPTANE (CAS 142-82-5)
 HEXANE (CAS 110-54-3)
 LUBRICATING OIL (MINERAL) (CAS 64742-54-7)
 LUBRICATING OIL (MINERAL) (CAS 64742-71-8)
 LUBRICATING OIL (MINERAL) (CAS 8009-03-8)
 VM & P NAPHTHA (CAS 64742-49-0)
 VM & P NAPHTHA (CAS 64742-89-8)

California Proposition 65



WARNING: This product can expose you to chemicals including cumene, which is known to the State of California to cause cancer, and n-hexane, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Carcinogenic substance

benzene (CAS 71-43-2)	Listed: February 27, 1987
cumene (CAS 98-82-8)	Listed: April 6, 2010
ethylbenzene (CAS 100-41-4)	Listed: June 11, 2004
naphthalene (CAS 91-20-3)	Listed: April 19, 2002

California Proposition 65 - CRT: Listed date/Developmental toxin

benzene (CAS 71-43-2)	Listed: December 26, 1997
mercury (CAS 7439-97-6)	Listed: July 1, 1990
toluene (CAS 108-88-3)	Listed: January 1, 1991

California Proposition 65 - CRT: Listed date/Male reproductive toxin

benzene (CAS 71-43-2)	Listed: December 26, 1997
n-hexane (CAS 110-54-3)	Listed: December 15, 2017

Volatile organic compounds (VOC) regulations

EPA

Aerosol coatings (40 CFR 59, Subpt. E)	Not regulated
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State

Aerosol coatings	This product is regulated as an Electrical Coating. This product is compliant for sale in all 50 states.
Maximum incremental reactivity (MIR)	1.253

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	06-18-2021
Revision date	12-28-2023
Prepared by	Joshua Weir
Version #	02
Further information	CRC # 597P-Q/1002627-1002629
Disclaimer	The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC's knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or CRC Industries, Inc..

Revision information

This document has undergone significant changes and should be reviewed in its entirety.



SAFETY DATA SHEET

1. Identification

Product identifier	Battery Cleaner - 11 oz	
Other means of identification		
Product Code	No. 03176 (Item# 1003435)	
Recommended use	Battery cleaner	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier/Distributor information		
Manufactured or sold by:		
Company name	CRC Industries, Inc.	
Address	885 Louis Dr.	
	Warminster, PA 18974 US	
Telephone		
General Information	215-674-4300	
Technical Assistance	800-521-3168	
Customer Service	800-272-4620	
24-Hour Emergency (CHEMTREC)	800-424-9300 (US)	
Website	www.crcindustries.com	

2. Hazard(s) identification

Physical hazards	Gases under pressure	Liquefied gas
Health hazards	Not classified.	
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	

Label elements



Signal word	Warning
Hazard statement	Contains gas under pressure; may explode if heated.
Precautionary statement	
Prevention	Do not puncture or incinerate container. Do not expose to heat or store at temperatures above 49 °C/120 °F. Use only outdoors or in a well-ventilated area. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying.
Response	Wash hands after handling.
Storage	Protect from sunlight. Store in a well-ventilated place. Exposure to high temperature may cause can to burst.
Disposal	Dispose of contents/container in accordance with local/regional/national regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
water		7732-18-5	80 - 90
liquefied petroleum gas		68476-86-8	5 - 10

Chemical name	Common name and synonyms	CAS number	%
2-butoxyethanol		111-76-2	1 - 3
Specific chemical identity and/or percentage of composition has been withheld as a trade secret.			
4. First-aid measures			
Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.		
Skin contact	Rinse skin with water/shower. Get medical attention if irritation develops and persists.		
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.		
Ingestion	Call a poison center or doctor/physician.		
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.		
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically.		
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.		
5. Fire-fighting measures			
Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).		
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.		
Specific hazards arising from the chemical	Pressurized container may rupture when exposed to heat or flame. During fire, gases hazardous to health may be formed.		
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.		
Fire-fighting equipment/instructions	In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up.		
General fire hazards	Contents under pressure. Pressurized container may rupture when exposed to heat or flame.		
6. Accidental release measures			
Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.		
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Stop the flow of material, if this is without risk. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.		
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.		
7. Handling and storage			
Precautions for safe handling	Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. For product usage instructions, see the product label.		
Conditions for safe storage, including any incompatibilities	Level 1 Aerosol. Contents under pressure. Do not expose to heat or store at temperatures above 120°F/49°C as can may burst. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Store in tightly closed container. Store in a well-ventilated place. Stored containers should be periodically checked for general condition and leakage. Store away from incompatible materials (see Section 10 of the SDS).		

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
2-butoxyethanol (CAS 111-76-2)	PEL	240 mg/m3
		50 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
2-butoxyethanol (CAS 111-76-2)	TWA	20 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
2-butoxyethanol (CAS 111-76-2)	TWA	24 mg/m3
		5 ppm

US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants

Components	Type	Value
2-butoxyethanol (CAS 111-76-2)	PEL	97 mg/m3
		20 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
2-butoxyethanol (CAS 111-76-2)	200 mg/g	Butoxyacetic acid (BAA), with hydrolysis	Creatinine in urine	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

2-butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

2-butoxyethanol (CAS 111-76-2) Skin designation applies.

US - Tennessee OELs: Skin designation

2-butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

2-butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

2-butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear protective gloves such as: Nitrile.

Other Wear suitable protective clothing.

Respiratory protection If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.

Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Aerosol.
Color	Clear.
Odor	Odorless.
Odor threshold	Not available.
pH	8.5
Melting point/freezing point	-102.6 °F (-74.8 °C) estimated
Initial boiling point and boiling range	211.9 °F (100 °C) estimated
Flash point	None (Closed Cup)
Evaporation rate	Slow.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	1.1 % estimated
Flammability limit - upper (%)	10.6 % estimated
Vapor pressure	127.6 hPa estimated
Vapor density	> 1 (air = 1)
Relative density	1.04
Solubility(ies)	
Solubility (water)	Soluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Percent volatile	94.3 % estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat, flames and sparks. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides. Aldehydes. Ketones. Organic acids. Sodium carbonate. Sodium oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Based on available data, the classification criteria are not met.

Symptoms related to the physical, chemical and toxicological characteristics

Direct contact with eyes may cause temporary irritation.

Information on toxicological effects**Acute toxicity** Not known.

Components	Species	Test Results
2-butoxyethanol (CAS 111-76-2)		
Acute		
Dermal		
LD50	Rabbit	220 mg/kg
Oral		
LD50	Rat	470 mg/kg
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.	
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	This product is not expected to cause skin sensitization.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	Not classifiable as to carcinogenicity to humans.	

IARC Monographs. Overall Evaluation of Carcinogenicity

2-butoxyethanol (CAS 111-76-2) 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Prolonged inhalation may be harmful. May be harmful if absorbed through skin. 2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.

12. Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence and degradability	No data is available on the degradability of any ingredients in the mixture.
Bioaccumulative potential	
Partition coefficient n-octanol / water (log Kow)	
2-butoxyethanol	0.83
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	The dispensed liquid product is not a RCRA hazardous waste (See 40 CFR Part 261.20 - 261.33). Empty container can be recycled. Consult authorities before disposal. Contents under pressure. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
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Hazardous waste code	Not regulated.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

14. Transport information

DOT

UN number	UN1950
UN proper shipping name	Aerosols, non-flammable, Limited Quantity
Transport hazard class(es)	
Class	2.2
Subsidiary risk	-
Label(s)	2.2
Packing group	-
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

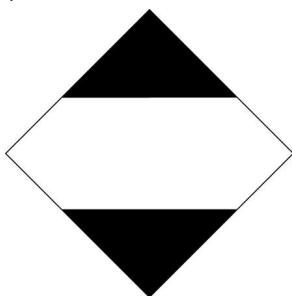
IATA

UN number	UN1950
UN proper shipping name	Aerosols, non-flammable, Limited Quantity
Transport hazard class(es)	
Class	2.2
Subsidiary risk	-
Packing group	-
ERG Code	2L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

UN number	UN1950
UN proper shipping name	AEROSOLS, Limited Quantity
Transport hazard class(es)	
Class	2.2
Subsidiary risk	-
Packing group	-
Environmental hazards	
Marine pollutant	No.
EmS	F-D, S-U
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

DOT; IMDG





15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

2-butoxyethanol (CAS 111-76-2)

CERCLA Hazardous Substances: Reportable quantity

Not listed.

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Contains component(s) regulated under the Safe Drinking Water Act.

Food and Drug Administration (FDA) Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Classified hazard categories Gas under pressure

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
2-butoxyethanol	111-76-2	1 - 3

US state regulations

US. New Jersey Worker and Community Right-to-Know Act

2-butoxyethanol (CAS 111-76-2)

US. Massachusetts RTK - Substance List

2-butoxyethanol (CAS 111-76-2)

US. Pennsylvania Worker and Community Right-to-Know Law

2-butoxyethanol (CAS 111-76-2)

US. Rhode Island RTK

2-butoxyethanol (CAS 111-76-2)

California Proposition 65



WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

California Proposition 65 - CRT: Listed date/Carcinogenic substance

1,4-dioxane (CAS 123-91-1)	Listed: January 1, 1988
ethylene oxide (CAS 75-21-8)	Listed: July 1, 1987

California Proposition 65 - CRT: Listed date/Developmental toxin

ethylene oxide (CAS 75-21-8)	Listed: August 7, 2009
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California Proposition 65 - CRT: Listed date/Female reproductive toxin

ethylene oxide (CAS 75-21-8)	Listed: February 27, 1987
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California Proposition 65 - CRT: Listed date/Male reproductive toxin

ethylene oxide (CAS 75-21-8)	Listed: August 7, 2009
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US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

2-butoxyethanol (CAS 111-76-2)

Volatile organic compounds (VOC) regulations

EPA

VOC content (40 CFR 51.100(s))	7.9 %
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Consumer products (40 CFR 59, Subpt. C)	Not regulated
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State

Consumer products	Not regulated
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VOC content (CA)	7.9 %
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VOC content (OTC)	7.9 %
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International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	06-24-2021
Prepared by	Danica Fulmer
Version #	01
Further information	CRC # 530B/1002542

Disclaimer

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC's knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or CRC Industries, Inc..

Revision information

This document has undergone significant changes and should be reviewed in its entirety.

SUNBURST COATINGS

2401 South 12th Street
Phoenix, AZ 85034
(602) 495-6000

PRODUCT DATA SHEET

SUN/STEEL #38 SERIES
W/R ALKYD METAL PRIMER

DESCRIPTION

Sun/Steel W/R Alkyd Primers are fast drying, water-reducible primers for general industrial. They are for use on steel either as a single shopcoat or as the primer for Sun/Steel W/R Alkyd Enamel Finishes. This primer has excellent corrosion resistance and early water resistance.

ADVANTAGES

- VOC 2.08 lb/gal (249 g/l) Coating
- VOC 0.87 lb/gal (105 g/l) Material
- Fast air drying
- Good early moisture resistance
- Excellent adhesion to untreated clean metal, both cold and hot rolled steel
- Reduces with water – means considerable cost savings in solvents
- Free of lead and chromate hazards
- No flash point – reduces fire hazards – lower insurance rates
- No critical recoat time when topcoated with Sun/Steel W/R Alkyd Enamel
- Lower odor improves working conditions
- Water can be used for cleanup of spray guns and other equipment
- Complete water system with Sun/Steel W/R Alkyd Enamel Finishes.
- May be topcoated with solvent-based alkyd enamels, epoxies, or urethanes. Testing is recommended if top coating with any finish other than Sunburst Coatings.

SURFACE PREPARATION

Substrate should be free of grease, oil, dirt, fingerprints, drawing compounds, any contamination, and surface passivation treatments to ensure optimum adhesion and coating performance properties.

New Galvanized Steel: Use recommended pre treatment.

Aged Galvanized Steel: Remove oxidation by cleaning.

Steel or Iron: The minimum surface preparation is hand tool or Power tool clean per SSPC-SP2 or SP3. Remove rust, mill scale, and oxidation products. For best results, treat the surfaces with a proprietary surface chemical treatment of zinc or iron phosphate to improve corrosion protection.

Testing: Due to the wide variety of substrates, surface preparation methods, application methods, and environments, the customer should test the complete system for adhesion and compatibility prior to full scale application.

Product Limitations:

- Package stability is 12 months. Indoor storage at 50-120°F is recommended.
- Higher relative humidity will increase dry time.
- Do not spray at air temperatures below 50°F.
- Topcoat with Sun/Steel or other water-reducible air drying alkyd enamels. May be top coated with other solvent based finishes after 24-48 hours air dry, with air temperatures above 75°F.

- Heavier film thickness will give slower dry time and higher sheen. Follow recommended film thickness for optimum performance.

APPLICATION

APPLICATION TEMPERATURE:

Substrate temperature between 55 to 120°F.

Product temperature between 50 to 120°F.

Reduce with hot water in the winter, cool water in the summer.

Do not over reduce as sagging will occur.

APPLICATION EQUIPMENT

Water-reducible enamels must be applied at higher viscosities than solvent-based enamels. They apply and atomize easier at higher viscosities.

Conventional Spray:

Reducer: Water or IPA

Reduction: As needed, material thinned to 20-25 seconds Zahn #3. Note: Use oil & water extractor in air line per manufactures instructions. Drain daily or more often as needed especially in area or period of high humidity.

Airless Spray:

Reducer: Water or IPA

Reduction: As needed, up to 10%

Pressure: 1800-2300 psi

Tip: .011" - .017"

Electrostatic Spray:

See Salesman, systems are now in testing

HVLP: (Mach I)

Air Pressure: 70-90 psi

Fluid Pressure: 3-10 psi

Fluid nozzle: #94 (.055")

Reducer: Water or IPA

Reduction: As needed, up to 5%

Dip:

See Salesman for information.

CLEAN-UP

Use water when wet. If no longer water soluble then clean with Lacquer Thinner. Follow manufacturer's safety recommendations when using any solvent.

STORAGE

WINTER:

PROTECT FROM FREEZING:

Store inside a building, preferably with heat to maintain a climate of no less than 50°F. If stored outside, protect with blanket material and store under canopy if possible.

SUMMER:

PROTECT FROM EXTREME HEAT:

Store inside a building or under canopy to prevent direct sunlight exposure. Extreme heat will destabilize the product by affecting the pH and resins. Extreme heat is 160°F or above.

CHARACTERISTICS

GLOSS: Flat, matte

COLOR: White (38W), Light Gray (38F1),
Dark Gray (38F2), Steel Gray (38F3), Red Oxide (38R)
Custom Colors tinted with ZERO VOC Colorants.

SOLIDS BY WEIGHT: 43 ± 2% (may vary by color)

SOLIDS BY VOLUME: 29 ± 2% (may vary by color)

VISCOSITY: 78-84 Krebs Units

RECOMMENDED FILM THICKNESS

Mils wet: 5.0 – 6.5

Applications, greater than 8 mils, paint will run.

Mils dry: 1.5 – 2.0

RECOMMENDED SPREADING RATE: (no application loss)

@ 1 mil dft: 580 sq ft/gal

DRYING SCHEDULE: 1.0 mils dft, 77°F, 50% RH:

To touch: 30-45 minutes

To handle: 60-90 minutes

Tack free: 45-60 minutes

To recoat: 30-60 minutes

To pack: overnight

Force Dry: 15-30 minutes at 150-180°F

NOTE: Good air movement and humidity control are necessary for proper drying of water reducible coatings. Coating millage and substrate temperature effect the above drying schedule.

Please contact your salesman if you are unsure how environmental conditions may affect your results.

FLASH POINT: None (Seta Flash)

pH: 8.5 – 9.5

PACKAGE LIFE: 1 year, unopened

VOC

COATING VOC: 2.08 #/gal or 249 g/l

This is an “artificial” VOC computation that the EPA and AQMD use to regulate paints and coatings that contain either water or exempt solvents. The *COATING VOC* is sometimes called the *Regulatory VOC*, and this is the VOC that air quality districts use to determine whether or not the paint is in compliance with the limits set by a rule.

MATERIAL VOC: 0.87 #/gal or 105 g/l

This is the *actual or real amount of VOC that a gallon of paint contains*. Always use the MATERIAL VOC to calculate actual VOC emissions.

APPROVALS

Sunburst 38 Series primers are approved by ISOLATEX to be used as a steel primer before coating with ‘CAFCO’ ‘SprayFilm’ WB 5 Intumescent Fire Protection.

PERFORMANCE CHARACTERISTICS

Test Method	Description:	Results:
ASTM D4541	Pull off Adhesion	1100 psi
ASTM B117	Salt Fog – 250 hours	PASS
ASTM D2243	Freeze/Thaw	20 Cycles
Meets performance requirements of:		
SSPC Paint no. 23, MPI# 107		

LEED Information

EQ Credit 4.2: Low-Emitting Materials: Paints & Coatings 1 Point

Intent: Reduce the quantity of indoor air contaminants that are odorous, irritating and/or harmful to the comfort and wellbeing of installers and occupants.

Requirements: Anti-corrosive and anti-rust paints applied to interior ferrous metal substrates: Do not exceed the VOC content limit of 250 g/l established in Green Seal Standard GC-03, anti-Corrosive Paints, Second Edition, January 7, 1997. VOC is computed by theoretical method ASTM D3960.

For more information, please visit this web site:

www.usgbc.org/leed.

FLAMMABILITY

This product is exempt under section 1501.2 of the 2009 International Fire Code.

Chapter 15 regulates spray finishing with any material defined as a flammable or combustible liquid by requiring that the spraying operation be confined to either a spray booth or an approved spray room. This section clarifies for the code user that liquids that do not have a fire point and a water-miscible liquids with a flash point over 95°F (35°C) having an aggregate water and inert solid content by weight of at least 80 percent are not regulated by Chapter 15.

CAUTIONS

Do not apply product to exposed steel if threat of rain is imminent.

Thoroughly review product label for safety and cautions prior to using this product. A Safety Data Sheet is available from the local Sunburst Coatings Distributor. Please direct any questions or comments to your local Sunburst Coatings Distributor.

Note: The information, rating, and opinions stated here pertain to the material currently offered and represent the results of tests believed to be reliable.

As of Date: 4/1/2024

SAFETY DATA SHEET



Castrol Brake Fluid DOT 4

Section 1. Identification

Product Identifier	Castrol Brake Fluid DOT 4
Product type	Liquid.
Code	466630-US65
SDS #	466630
Product use	Brake fluids. For specific application advice see appropriate Technical Data Sheet or consult our company representative.
Supplier	BP Lubricants USA Inc. 1500 Valley Road Wayne, NJ 07470 Telephone: (973) 633-2200
EMERGENCY HEALTH INFORMATION:	1 (800) 447-8735 Outside the US: +1 703-527-3887 (CHEMTREC)
Emergency Telephone Number	CISPROQUIM línea gratuita Nacional: 018000916012 1 (800) 424-9300 CHEMTREC (USA)

Section 2. Hazard identification

Classification of the substance or mixture	TOXIC TO REPRODUCTION (Unborn child) - Category 2
GHS label elements	
Hazard pictograms	
Signal word	Warning
Hazard statements	H361 - Suspected of damaging the unborn child.
Precautionary statements	P103 - Read label before use. P102 - Keep out of reach of children. P101 - If medical advice is needed, have product container or label at hand.
Prevention	P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P280 - Wear protective gloves. Wear protective clothing. Wear eye or face protection.
Response	P308 + P313 - IF exposed or concerned: Get medical attention.
Storage	P405 - Store locked up.
Disposal	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Other hazards which do not result in classification	Defatting to the skin.

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Section 3. Composition/information on ingredients

Substance/mixture Mixture
polyethylene glycol Proprietary performance additives.

Ingredient name	CAS number	%
tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate	30989-05-0	≥25 - ≤50
2-[2-(2-butoxyethoxy)ethoxy]ethanol	143-22-6	≥10 - ≤25
2,2'-oxybisethanol	111-46-6	<10
Di-isopropanolamine	110-97-4	≤10

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.
Skin contact	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention.
Inhalation	If inhaled, remove to fresh air. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. Get medical attention.
Ingestion	Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Get medical attention.
Protection of first-aiders	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	No known significant effects or critical hazards.
Inhalation	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact	Defatting to the skin. May cause skin dryness and irritation.
Ingestion	Diethylene glycol: Ingestion of diethylene glycol can cause metabolic acidosis, kidney damage, central nervous system depression, and convulsions. The estimated human lethal dose is approximately 100 ml (3.4 ounces for an adult).

Over-exposure signs/symptoms

Eye contact	No specific data.
Inhalation	May be harmful by inhalation if exposure to vapor, mists or fumes resulting from thermal decomposition products occurs.
Skin contact	Adverse symptoms may include the following: irritation dryness cracking reduced fetal weight increase in fetal deaths skeletal malformations

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Section 4. First aid measures

Ingestion	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
Indication of immediate medical attention and special treatment needed, if necessary	
Notes to physician	Treatment should in general be symptomatic and directed to relieving any effects. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	No specific treatment.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media	
Suitable extinguishing media	In case of fire, use foam, dry chemical or carbon dioxide extinguisher or spray.
Unsuitable extinguishing media	Do not use water jet.
Specific hazards arising from the chemical	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	Combustion products may include the following: carbon oxides (CO, CO ₂) (carbon monoxide, carbon dioxide) nitrogen oxides (NO, NO ₂ etc.)
Special protective actions for fire-fighters	No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.
Special protective equipment for fire-fighters	Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	
For non-emergency personnel	Contact emergency personnel. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling.
For emergency responders	Entry into a confined space or poorly ventilated area contaminated with vapor, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work. Wear self-contained breathing apparatus. Wear a suitable chemical protective suit. Chemical resistant boots. See also the information in "For non-emergency personnel".
Environmental precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods and materials for containment and cleaning up	
Small spill	Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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Section 6. Accidental release measures

Large spill

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Contaminated absorbent material may pose the same hazard as the spilled product. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Store and use only in equipment/containers designed for use with this product. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. DO NOT ADD NITRITES TO THIS FLUID.

Not suitable

Prolonged exposure to elevated temperature

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Appropriate engineering controls

All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.

Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards.

Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits.

The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

Section 8. Exposure controls/personal protection

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Safety glasses with side shields.

Skin protection

Wear protective gloves if prolonged or repeated contact is likely. Wear chemical resistant gloves. Recommended: Butyl gloves. Neoprene gloves. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

Hand protection

Use of protective clothing is good industrial practice. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.

Body protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

In case of insufficient ventilation, wear suitable respiratory equipment. The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

Section 9. Physical and chemical properties and safety characteristics

Appearance

Physical state

Liquid.

Color

Yellow.

Odor

Characteristic.

Odor threshold

Not available.

pH

7.5 to 9

Melting point/freezing point

<-70°C (<-94°F)

Boiling point

>260°C (>500°F)

Drop Point

Not available.

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Section 9. Physical and chemical properties and safety characteristics

Flash point	Closed cup: >125°C (>257°F) [Pensky-Martens.]
Evaporation rate	Not available.
Lower and upper explosion limit/flammability limit	Lower: 1.5%
Vapor pressure	<0.13 kPa (<1 mm Hg) [20°C (68°F)]
Relative vapor density	Not available.
Relative density	Not available.
Density	>1000 kg/m³ (>1 g/cm³) at 20°C
Solubility	Miscible in water.
Solubility in water	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Kinematic: 16 mm²/s (16 cSt) at 20°C

Section 10. Stability and reactivity

Reactivity	No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.
Chemical stability	The product is stable.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid	Avoid all possible sources of ignition (spark or flame).
Incompatible materials	Reactive or incompatible with the following materials: oxidizing materials.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Information on the likely routes of exposure	Routes of entry anticipated: Dermal, Inhalation.
Potential acute health effects	
Eye contact	No known significant effects or critical hazards.
Skin contact	Defatting to the skin. May cause skin dryness and irritation.
Inhalation	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Ingestion	Diethylene glycol: Ingestion of diethylene glycol can cause metabolic acidosis, kidney damage, central nervous system depression, and convulsions. The estimated human lethal dose is approximately 100 ml (3.4 ounces for an adult).

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Section 11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	No specific data.
Skin contact	Adverse symptoms may include the following: irritation dryness cracking reduced fetal weight increase in fetal deaths skeletal malformations
Inhalation	May be harmful by inhalation if exposure to vapor, mists or fumes resulting from thermal decomposition products occurs.
Ingestion	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Inhalation	Overexposure to the inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.
Ingestion	Ingestion of large quantities may cause nausea and diarrhea.
Skin contact	Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.
Eye contact	Potential risk of transient stinging or redness if accidental eye contact occurs.

Potential chronic health effects

General	May cause damage to organs through prolonged or repeated exposure. (kidney)
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Developmental effects	Birth defects and decreased fetal weight have been observed in laboratory animals fed diethylene glycol in large amounts repeatedly during pregnancy.
Fertility effects	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	5050.51 mg/kg

Section 12. Ecological information

Environmental effects No known significant effects or critical hazards.

Toxicity

No testing has been performed by the manufacturer.

Persistence and degradability

Expected to be biodegradable.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Di-isopropanolamine	-	-	Readily

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Section 12. Ecological information

Bioaccumulative potential

This product is not expected to bioaccumulate through food chains in the environment.

Mobility in soil

Soil/water partition coefficient (K_{oc})

Not available.

Mobility

Spillages may penetrate the soil causing ground water contamination.

Other adverse effects

No known significant effects or critical hazards.

Other ecological information

Miscible in water.

Section 13. Disposal considerations

Disposal methods

The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	ADR/RID	ADN	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-
Transport hazard class(es)	-	-	-	-
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.
Additional information	-	-	-	-

Special precautions for user Not available.

Transport in bulk according to Annex II of MARPOL and the IBC Code Not available.

Product name	Castrol Brake Fluid DOT 4	Product code	466630-US65	Page: 9/10
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Section 15. Regulatory information

International regulations

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Other regulations

Australia inventory (AICS) All components are listed or exempted.

Canada inventory At least one component is not listed in DSL but all such components are listed in NDSL.

China inventory (IECSC) All components are listed or exempted.

Japan inventory (ENCS) All components are listed or exempted.

Korea inventory (KECI) At least one component is not listed.

Philippines inventory (PICCS) All components are listed or exempted.

Taiwan Chemical Substances Inventory (TCSI) All components are listed or exempted.

United States inventory (TSCA 8b) All components are active or exempted.

REACH Status For the REACH status of this product please consult your company contact, as identified in Section 1.

Section 16. Other information

History

Date of printing 5/20/2020

Date of issue/Date of revision 5/20/2020

Date of previous issue 7/25/2019

Version 3

Prepared by Product Stewardship

Key to abbreviations

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006]

UN = United Nations

Varies = may contain one or more of the following 64741-88-4, 64741-89-5, 64741-95-3, 64741-96-4, 64742-01-4, 64742-44-5, 64742-45-6, 64742-52-5, 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-57-0, 64742-58-1, 64742-62-7, 64742-63-8, 64742-65-0, 64742-70-7, 72623-85-9, 72623-86-0,

72623-87-1VOC = Volatile Organic Compound

 Indicates information that has changed from previously issued version.

Notice to reader

Date of issue/Date of revision	: 5/20/2020	Date of previous issue	: 7/25/2019	Version : 3	9/10
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Product name	Castrol Brake Fluid DOT 4	Product code	466630-US65	Page: 10/10
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Section 16. Other information

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from BP Group.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken. You can contact the BP Group to ensure that this document is the most current available. Alteration of this document is strictly prohibited.

SAFETY DATA SHEET

CABANA SPRAY

Page: 1

Compilation date: 22/07/2016

Revision date: 12/1/2018

Revision No: 2

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: CABANA SPRAY

Product code: 1064

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of substance / mixture: Cleaning Product

1.3. Details of the supplier of the safety data sheet

Company name: Satellite Industries Inc

2530 Xenium Lane

Minneapolis

Minnesota 55441

USA

Tel: +18002334089

Email: stephenh@satelliteco.com

1.4. Emergency telephone number

Emergency tel: +1703-527-3887CHEMTREC US

+1703-741-5970 Int'l (24H)

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: Eye Irrit. 2: H319; Skin Irrit. 2: H315

Most important adverse effects: Causes skin irritation. Causes serious eye irritation.

2.2. Label elements

Label elements:

Hazard statements: H315: Causes skin irritation.

H319: Causes serious eye irritation.

Signal words: Warning

Hazard pictograms: GHS07: Exclamation mark



Precautionary statements: P264: Wash hands thoroughly after handling.

P280: Wear eye protection.

[cont...]

SAFETY DATA SHEET

CABANA SPRAY

Page: 2

P302+352: IF ON SKIN: Wash with plenty of water/.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321: Specific treatment (see instructions on this label).

P332+313: If skin irritation occurs: Get medical advice/attention.

2.3. Other hazards

PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

ALCOHOLS, C9-C11, ETHOXYLATED

EINECS	CAS	PBT / WEL	CLP Classification	Percent
-	68439-46-3	-	Acute Tox. 4: H302; Skin Irrit. 2: H315; Eye Irrit. 2: H319; Acute Tox. 4: H332; STOT SE 3: H335	12-30%

Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water.

Eye contact: Bathe the eye with running water for 15 minutes. Consult a doctor.

Ingestion: Wash out mouth with water. Consult a doctor.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

4.2. Most important symptoms and effects, both acute and delayed

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

4.3. Indication of any immediate medical attention and special treatment needed

Immediate / special treatment: Eye bathing equipment should be available on the premises.

Section 5: Fire-fighting measures

[cont...]

SAFETY DATA SHEET

CABANA SPRAY

Page: 3

5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Refer to section 8 of SDS for personal protection details. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent the escape of liquid.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area. Keep container tightly closed.

Suitable packaging: Not applicable.

7.3. Specific end use(s)

Specific end use(s): No data available.

Section 8: Exposure controls/personal protection

[cont...]

SAFETY DATA SHEET

CABANA SPRAY

Page: 4

8.1. Control parameters

Workplace exposure limits:

Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
EU	n/a	-	-	-

DNEL/PNEC Values

DNEL / PNEC No data available.

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area.

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency.

Hand protection: Protective gloves.

Eye protection: Safety glasses. Ensure eye bath is to hand.

Skin protection: Protective clothing.

Environmental: Refer to specific Member State legislation for requirements under Community environmental legislation.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Colourless

Odour: Pleasant

Evaporation rate: Moderate

Oxidising: Non-oxidising (by EC criteria)

Solubility in water: Soluble

Viscosity: Non-viscous

Boiling point/range°C: 100

Flammability limits %: lower: n/a

upper: n/a

Flash point°C: >93

Relative density: 1.010

pH: Approx. 7

VOC g/l: 50

9.2. Other information

Other information: No data available.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

[cont...]

SAFETY DATA SHEET

CABANA SPRAY

Page: 5

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.

Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

Section 11: Toxicological information

11.1. Information on toxicological effects

Toxicity values:

Route	Species	Test	Value	Units
DERMAL	RAT	LD50	>2000	mg/kg

Hazardous ingredients:

ALCOHOLS, C9-C11, ETHOXYLATED

ORL	RAT	LD50	4500	mg/kg
SKN	RAT	LD50	3300	mg/kg

Relevant hazards for substance:

Hazard	Route	Basis
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated

Symptoms / routes of exposure

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

[cont...]

SAFETY DATA SHEET

CABANA SPRAY

Page: 6

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values:

Species	Test	Value	Units
RAINBOW TROUT (<i>Oncorhynchus mykiss</i>)	96H LC50	>1500	mg/l

Hazardous ingredients:

ALCOHOLS, C9-C11, ETHOXYLATED

Daphnia magna	48H EC50	2.5	mg/l
RAINBOW TROUT (<i>Oncorhynchus mykiss</i>)	96H LC50	7	mg/l

12.2. Persistence and degradability

Persistence and degradability: Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

12.4. Mobility in soil

Mobility: Readily absorbed into soil.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: Negligible ecotoxicity.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

Recovery operations: Not applicable.

Disposal of packaging: Clean with water.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

Transport class: This product does not require a classification for transport.

Section 15: Regulatory information

[cont...]

SAFETY DATA SHEET

CABANA SPRAY

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15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Specific regulations: Not applicable.

15.2. Chemical Safety Assessment

Section 16: Other information

Other information

Other information: Sheet prepared in accordance with applicable US laws and regulations.

Phrases used in s.2 and s.3: H302: Harmful if swallowed.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H332: Harmful if inhaled.

H335: May cause respiratory irritation.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

[final page]

SAFETY DATA SHEET

1. Identification

Product identifier	CloroxPro® Clorox® Germicidal Bleach Concentrated
Other means of identification	Document Number: USA002018 EPA 67619-32
Recommended use	Bleach
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Manufacturer	
Company name	The Clorox Company
Address	1221 Broadway Oakland, CA 94612
United States	United States
Telephone	1-510-271-7000
E-mail	Not available.
Emergency phone number	Medical Emergency: 1-800-446-1014 Transportation Emergency: 1-800-424-9300 (Chemtrec)

2. Hazards Identification

Physical hazards	Not classified.	
Health hazards	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		
Signal word	Danger	
Hazard statement	Causes severe skin burns and eye damage.	
Precautionary statement		
Prevention	Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves and eye protection.	
Response	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. Specific treatment (see information on this label). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
Storage	Store locked up.	
Disposal	Dispose of container in accordance with local, regional, national and international regulations.	
Hazard(s) not otherwise classified (HNOC)	None known.	
Supplemental information	This SDS is designed for workplace employees, emergency personnel and for other conditions and situations where there is greater potential for large-scale or prolonged exposure. This SDS is not applicable for consumer use of our products. For consumer use, all precautionary and first aid language is provided on the product label in accordance with the applicable government regulations.	

3. Composition/Information on Ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Sodium hypochlorite		7681-52-9	8.25

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

Inhalation	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor.
Skin contact	IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.
Eye contact	IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses if present, after the first 5 minutes, then, continue rinsing eye. Call a poison control center or doctor for treatment advice.
Ingestion	IF SWALLOWED: Have person sip a glassful of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person
Most important symptoms/effects, acute and delayed	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause redness and pain. Burning pain and severe corrosive skin damage.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Symptoms may be delayed. Probable mucosal damage may contraindicate the use of gastric lavage.
General information	If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. KEEP OUT OF REACH OF CHILDREN AND PETS. IN ALL CASES, CALL A DOCTOR OR POISON CONTROL CENTER IMMEDIATELY.
	Call a poison control center or doctor immediately for further treatment advice. Have product container or label with you when calling a poison control center or doctor, or going for treatment. Clorox Information Line: 1-800-292-2200.

5. Fire Fighting Measures

Suitable extinguishing media	Treat for surrounding material.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Prevent entry into basements or confined areas. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe with absorbent material and discard. Clean surface thoroughly to remove residual contamination.
Environmental precautions	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Do not discharge into lakes, streams, ponds or public waters.

7. Handling and Storage

Precautions for safe handling	Avoid contact with eyes and skin. Always dilute strictly in accordance with label directions. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash thoroughly after handling. Use good industrial hygiene practices in handling this material. When using do not eat or drink.
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Conditions for safe storage, including any incompatibilities Do not contaminate water, food or feed by storage and disposal. Store away from children. Reclose cap tightly after each use. Degrades with age and exposure to heat and sunlight. Store this product upright in a cool, dry area, away from direct sunlight and heat.

8. Exposure Controls/Personal Protection

Occupational exposure limits

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
Sodium hypochlorite (CAS 7681-52-9)	STEL	2 mg/m ³

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields.

Skin protection

Hand protection Rubber gloves. Confirm with a reputable supplier first.

Other Wear appropriate chemical resistant clothing. As required by employer code.

Respiratory protection

Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).

Thermal hazards

Not applicable.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Wash hands before breaks and immediately after handling the product. When using do not eat or drink.

9. Physical and Chemical Properties

Appearance Clear

Physical state Liquid.

Form Liquid.

Color Clear Light yellow

Odor Bleach

Odor threshold Not available.

pH ~12

Melting point/freezing point Not available.

Initial boiling point and boiling range Not available.

Pour point Not available.

Specific gravity Not available.

Partition coefficient (n-octanol/water) Not available.

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure Not available.

Vapor density Not available.

Relative density ~1.1

Solubility(ies) Soluble

Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

10. Stability and Reactivity

Reactivity	This product may react with strong oxidizing agents.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Chemical stability	Material is stable under normal conditions.
Conditions to avoid	This product may react with oxidizing agents.
Incompatible materials	Mix only with water according to label directions. Mixing this product with chemicals (e.g., ammonia or acids) or organic matter (e.g., urine or feces) in a manner inconsistent with labeling directions may release hazardous gases irritating to eyes, lungs, and mucous membranes Oxidizers. Caustics. Acids.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon. Hydrogen chloride.

11. Toxicological Information

Information on likely routes of exposure

Inhalation	No adverse effects due to inhalation are expected. Excessive intentional inhalation may cause respiratory tract irritation.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Ingestion	May cause stomach distress, nausea or vomiting.
Symptoms related to the physical, chemical and toxicological characteristics	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Burning pain and severe corrosive skin damage. May cause redness and pain.

Information on toxicological effects

Acute toxicity	See below.
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Components	Species	Test Results
Sodium hypochlorite (CAS 7681-52-9)		
Acute		
Dermal		
LD50	Rabbit	> 20000 mg/kg, ECHA
Inhalation		
LC50	Rat	> 10.5 mg/L, 1 Hours, ECHA
Oral		
LD50	Rat	8910 mg/kg, ECHA

Skin corrosion/irritation	Causes severe burns.
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Exposure minutes	Not available.
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Erythema value	Not available.
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Oedema value	Not available.
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Serious eye damage/eye irritation	Causes serious eye damage.
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Corneal opacity value	Not available.
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Iris lesion value	Not available.
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Conjunctival reddening value	Not available.
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Conjunctival oedema value	Not available.
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Recover days	Not available.
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Respiratory or skin sensitization	
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Respiratory sensitization	Not a respiratory sensitizer.
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Skin sensitization	Causes severe skin burns.
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Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
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Carcinogenicity	See below.
------------------------	------------

IARC Monographs. Overall Evaluation of Carcinogenicity

Sodium hypochlorite (CAS 7681-52-9)

Volume 52 - 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

U.S. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Not available.
Further information	Not available.

12. Ecological Information

Ecotoxicity	This product is toxic to fish, aquatic invertebrates, oysters and shrimp.		
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Ecotoxicological data

Components	Species	Test Results
Sodium hypochlorite (CAS 7681-52-9)		
Crustacea	EC50	Daphnia
		2.1 mg/L, 48 Hours
Aquatic		
Fish	LC50	Chinook salmon (Oncorhynchus tshawytscha)
		0.038 - 0.065 mg/L, 96 hours

Persistence and degradability	Not available.
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Bioaccumulative potential	Not available.
----------------------------------	----------------

Mobility in soil	Not available.
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Mobility in general	Not available.
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Other adverse effects	Not available.
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13. Disposal Considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
	IF EMPTY: Nonrefillable container. Do not reuse or refill the container. Offer for recycling, if available.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information

General	Canada: TDG Proof of Classification: Classification Method: Classified as per Part 2, Sections 2.1 – 2.8 of the Transportation of Dangerous Goods Regulations. If applicable, the technical name and the classification of the product will appear below.
----------------	--

U.S. Department of Transportation (DOT)**Basic shipping requirements:**

UN number	UN1791
Proper shipping name	Hypochlorite solutions
Hazard class	Limited Quantity - US
Packing group	III

Transportation of Dangerous Goods (TDG - Canada)**Basic shipping requirements:**

UN number	UN1791
Proper shipping name	HYPOCHLORITE SOLUTION
Hazard class	Limited Quantity - Canada

Packing group III

IATA/ICAO (Air)

Basic shipping requirements:

UN number UN1791

Proper shipping name Hypochlorite solution

Hazard class Limited Quantity - IATA

Packing group III

IMDG (Marine Transport)

Basic shipping requirements:

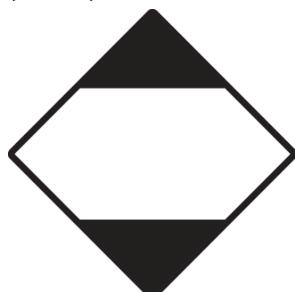
UN number UN1791

Proper shipping name HYPOCHLORITE SOLUTION

Hazard class Limited Quantity - IMDG

Packing group III

DOT; IMDG; TDG



IATA



15. Regulatory Information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

EPA Reg. # 67619-32

DANGER: CORROSIVE. Causes irreversible eye damage and skin burns. Harmful if swallowed. Do not get in eyes, on skin or on clothing. Wear protective eyewear and rubber gloves when handling this product. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the restroom. Avoid breathing vapors and use only in a well-ventilated area. Remove and wash contaminated clothing before reuse.

PHYSICAL OR CHEMICAL HAZARDS: STRONG OXIDIZING AGENT.

Mix only with water according to label directions. Mixing this product with chemicals (e.g., ammonia or acids) or organic matter (e.g., urine or feces) in a manner inconsistent with labeling directions may release hazardous gases irritating to eyes, lungs, and mucous membranes

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Sodium hypochlorite (CAS 7681-52-9)

Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**SARA 302 Extremely hazardous substance** No

Classified hazard categories	Skin corrosion or irritation Serious eye damage or eye irritation
-------------------------------------	--

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)	Not regulated.
---------------------------------------	----------------

Food and Drug Administration (FDA)	Not regulated.
---	----------------

US state regulations	See below
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US - Illinois Chemical Safety Act: Listed substance

Sodium hypochlorite (CAS 7681-52-9)

US - Louisiana Spill Reporting: Listed substance

Sodium hypochlorite (CAS 7681-52-9) Listed.

US - Minnesota Haz Subs: Listed substance

Sodium hypochlorite (CAS 7681-52-9) SODIUM HYPOCHLORITE

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. Massachusetts RTK - Substance List

Sodium hypochlorite (CAS 7681-52-9)

US. New Jersey Worker and Community Right-to-Know Act

Sodium hypochlorite (CAS 7681-52-9)

US. Pennsylvania Worker and Community Right-to-Know Law

Sodium hypochlorite (CAS 7681-52-9)

California Proposition 65

This product is not subject to warning labeling under the California Proposition 65 regulation.

Country(s) or region

United States & Puerto Rico

Inventory name

Toxic Substances Control Act (TSCA) Inventory

On inventory (yes/no)*

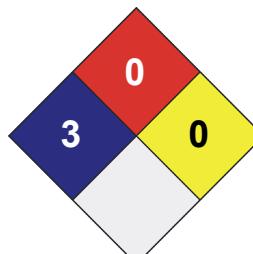
Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	/	3
FLAMMABILITY	/	0
PHYSICAL HAZARD	/	0
PERSONAL PROTECTION	/	X

**Disclaimer**

The information in the safety data sheet was written by Dell Tech Laboratories Ltd. (www.dellttech.com) based on the best knowledge and experience currently available. Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

Issue date

15-October-2021

Version #

01

Further information

Not available.

Other information

For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

Reference Item: 166081.148

Prepared by: The Clorox Company, 4900 Johnson Drive, Pleasanton, CA 94588, 925-368-6000

Safety Data Sheet



SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Havoline Conventional Antifreeze/Coolant - Concentrate

Product Use: Automotive Coolant

Product Number(s): 226110

Synonyms: Havoline Conventional Concentrate AF/C - B

Company Identification

Chevron Products Company

a division of Chevron U.S.A. Inc.

6001 Bollinger Canyon Rd.

San Ramon, CA 94583

United States of America

www.chevronlubricants.com

Transportation Emergency Response

CHEMTRIC: (800) 424-9300 or (703) 527-3887

Health Emergency

Chevron Emergency & Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

Product Information

email : lubemsds@chevron.com

Product Information: 1 (800) 582-3835, LUBETEK@chevron.com

SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION: Target organ toxicant (repeated exposure): Category 2. Acute oral toxicant: Category 4.



Signal Word: Warning

Health Hazards: Harmful if swallowed.

Target Organs: May cause damage to organs (Kidney) through prolonged or repeated exposure.

PRECAUTIONARY STATEMENTS:

Prevention: Do not breathe dust/fume/gas/mist/vapours/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

Response: IF SWALLOWED: Rinse mouth. Call a poison center or doctor/physician if you feel unwell. Get medical advice/attention if you feel unwell.

Disposal: Dispose of contents/container in accordance with applicable local/regional/national/international

regulations.

HAZARDS NOT OTHERWISE CLASSIFIED: Not Applicable

SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Ethylene Glycol	107-21-1	80 - 98 %weight

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye: No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

Skin: No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

Ingestion: If swallowed, get immediate medical attention. Do not induce vomiting. Never give anything by mouth to an unconscious person.

Inhalation: No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

Most important symptoms and effects, both acute and delayed

IMMEDIATE HEALTH EFFECTS

Eye: Not expected to cause prolonged or significant eye irritation.

Skin: Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

Ingestion: Toxic; may be harmful or fatal if swallowed.

Inhalation: Breathing this material at concentrations above the recommended exposure limits may cause central nervous system effects. Central nervous system effects may include headache, dizziness, nausea, vomiting, weakness, loss of coordination, blurred vision, drowsiness, confusion, or disorientation. At extreme exposures, central nervous system effects may include respiratory depression, tremors or convulsions, loss of consciousness, coma or death.

DELAYED OR OTHER HEALTH EFFECTS:

Target Organs: Contains material that may cause damage to the following organ(s) following repeated inhalation at concentrations above the recommended exposure limit: Kidney See Section 11 for additional information. Risk depends on duration and level of exposure.

Indication of any immediate medical attention and special treatment needed Not Applicable

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Dry Chemical, CO₂, Aqueous Film Forming Foam (AFFF) or alcohol resistant foam.

PROTECTION OF FIRE FIGHTERS:

Fire Fighting Instructions: This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion. Combustion may form oxides of: Potassium, Phosphorus.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Protective Measures: Eliminate all sources of ignition in vicinity of spilled material.

Spill Management: Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

Reporting: Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

SECTION 7 HANDLING AND STORAGE

General Handling Information: Do not taste or swallow antifreeze or solution. Keep out of the reach of children and animals.

Precautionary Measures: Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Do not breathe vapor or fumes. Wash thoroughly after handling. Keep out of the reach of children.

Static Hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

Container Warnings: Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

General Storage Information: Do not store in open or unlabeled containers.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

ENGINEERING CONTROLS:

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below the recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Eye/Face Protection: No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

Skin Protection: No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Natural rubber, Neoprene, Nitrile Rubber, Polyvinyl Chloride (PVC or Vinyl).

Respiratory Protection: Determine if airborne concentrations are below the recommended occupational exposure

limits for jurisdiction of use. If airborne concentrations are above the acceptable limits, wear an approved respirator that provides adequate protection from this material, such as: Air-Purifying Respirator for Organic Vapors, Dusts and Mists.

Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

Occupational Exposure Limits:

Component	Agency	Form	TWA	STEL	Ceiling	Notation
Ethylene Glycol	ACGIH	Inhalable aerosol	--	10 mg/m ³	--	--
Ethylene Glycol	ACGIH	Vapor fraction	25 ppm	50 ppm	--	--
Ethylene Glycol	ACGIH	--	.01 ppm	--	--	Skin

Consult local authorities for appropriate values.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Attention: the data below are typical values and do not constitute a specification.

Color: Green

Physical State: Liquid

Odor: Faint or Mild

Odor Threshold: No data available

pH: 10.2 - 11; 33% volume @ 20°C (solution in water)

Vapor Pressure: Not Applicable

Vapor Density (Air = 1): No data available

Initial Boiling Point: 180°C (356°F) (Estimated)

Solubility: Soluble in water.

Freezing Point: -18°C (-0.4°F) (Typical)

Melting Point: Not Applicable

Specific Gravity: 1.13 @ 15.6°C (60°F) (Typical)

Density: No data available

Viscosity: No data available

Evaporation Rate: No data available

Decomposition temperature: No data available

Octanol/Water Partition Coefficient: No data available

FLAMMABLE PROPERTIES:

Flammability (solid, gas): No Data Available

Flashpoint: (Pensky-Martens Closed Cup) 122 °C (252 °F) (Estimated)

Autoignition: No data available

Flammability (Explosive) Limits (% by volume in air): Lower: No data available Upper: No data available

SECTION 10 STABILITY AND REACTIVITY

Reactivity: May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Incompatibility With Other Materials: Not applicable

Hazardous Decomposition Products: Ketones (Elevated temperatures), Aldehydes (Elevated temperatures)

Hazardous Polymerization: Hazardous polymerization will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Serious Eye Damage/Irritation: The eye irritation hazard is based on evaluation of data for product components.

Skin Corrosion/Irritation: The skin irritation hazard is based on evaluation of data for product components.

Skin Sensitization: The skin sensitization hazard is based on evaluation of data for similar materials.

Acute Dermal Toxicity: The acute dermal toxicity hazard is based on evaluation of data for product components.

Acute Oral Toxicity: The acute oral toxicity hazard is based on evaluation of data for product components.

Acute Inhalation Toxicity: The acute inhalation toxicity hazard is based on evaluation of data for product components.

Acute Toxicity Estimate (oral): 1688 mg/kg

Germ Cell Mutagenicity: The hazard evaluation is based on data for components or a similar material.

Carcinogenicity: The hazard evaluation is based on data for components or a similar material.

Reproductive Toxicity: The hazard evaluation is based on data for components or a similar material.

Specific Target Organ Toxicity - Single Exposure: The hazard evaluation is based on data for components or a similar material.

Specific Target Organ Toxicity - Repeated Exposure: The hazard evaluation is based on data for components or a similar material.

ADDITIONAL TOXICOLOGY INFORMATION:

This product contains ethylene glycol (EG). The toxicity of EG via inhalation or skin contact is expected to be slight at room temperature. The estimated oral lethal dose is about 100 cc (3.3 oz.) for an adult human. Ethylene glycol is oxidized to oxalic acid which results in the deposition of calcium oxalate crystals mainly in the brain and kidneys. Early signs and symptoms of EG poisoning may resemble those of alcohol intoxication. Later, the victim may experience nausea, vomiting, weakness, abdominal and muscle pain, difficulty in breathing and decreased urine output. When EG was heated above the boiling point of water, vapors formed which reportedly caused unconsciousness, increased lymphocyte count, and a rapid, jerky movement of the eyes in persons chronically exposed. When EG was administered orally to pregnant rats and mice, there was an increase in fetal deaths and birth defects. Some of these effects occurred at doses that had no toxic effects on the mothers. We are not aware of any reports that EG causes reproductive toxicity in human beings.

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICITY

This material is not expected to be harmful to aquatic organisms.

The product has not been tested. The statement has been derived from products of a similar structure and composition.

MOBILITY

No data available.

PERSISTENCE AND DEGRADABILITY

This material is expected to be readily biodegradable. The biodegradability of this material is based on an evaluation of data for the components or a similar material.

The product has not been tested. The statement has been derived from the properties of the individual components.

POTENTIAL TO BIOACCUMULATE

Bioconcentration Factor: No data available.
Octanol/Water Partition Coefficient: No data available

SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by international, country, or local laws and regulations.

SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

DOT Shipping Description: PROPRIETARY ANTIFREEZE PREPARATION IN NON-BULK PACKAGING; NOT REGULATED FOR TRANSPORT UNDER 49 CFR.

Additional Information: Bulk shipments containing a reportable quantity (RQ, 5000 pounds or more) of ethylene glycol in a single packaging are transported as hazardous material. The shipping description is: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ETHYLENE GLYCOL CONTAINS BITTERANT), 9, III, RQ (ETHYLENE GLYCOL)

IMO/IMDG Shipping Description: NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

ICAO/IATA Shipping Description: NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:
Not applicable

SECTION 15 REGULATORY INFORMATION

EPCRA 311/312 CATEGORIES:

Acute toxicity (any route of exposure)
Specific target organ toxicity (single or repeated exposure)

REGULATORY LISTS SEARCHED:

01-1=IARC Group 1	03=EPCRA 313
01-2A=IARC Group 2A	04=CA Proposition 65
01-2B=IARC Group 2B	05=MA RTK
02=NTP Carcinogen	06=NJ RTK 07=PA RTK

The following components of this material are found on the regulatory lists indicated.

Ethylene Glycol 04, 07

CHEMICAL INVENTORIES:

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), EINECS (European Union), IECSC (China), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (United States).

One or more components does not comply with the following chemical inventory requirements: ENCS (Japan).

NEW JERSEY RTK CLASSIFICATION:

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows: Refer to components listed in Section 3.

SECTION 16 OTHER INFORMATION

NFPA RATINGS: Health: 1 Flammability: 1 Reactivity: 0

HMIS RATINGS: Health: 1* Flammability: 1 Reactivity: 0

(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, *- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

REVISION STATEMENT: No revision information

Revision Date: April 08, 2020

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
GHS - Globally Harmonized System	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to the 29 CFR 1910.1200 (2012) by Chevron Energy Technology Company, 6001 Bollinger Canyon Road, San Ramon, CA 94583.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.



Safety Data Sheet

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Document Group: 29-5993-0
Issue Date: 02/24/22

Version Number: 6.00
Supercedes Date: 12/07/21

SECTION 1: Identification

1.1. Product identifier

3M™ Cream Hardener (Red, White & Blue)

Product Identification Numbers

LB-K100-0965-7, LB-K100-0965-8, LB-K100-0965-9, LB-K100-0966-0, LB-K100-0966-1, LB-K100-0966-2, LB-K100-0966-3, LB-K100-1035-6, LB-K100-1045-4, LB-K100-1286-7, 41-0003-6674-4, 41-0003-6682-7, 41-0003-6685-0, 41-0003-6686-8, 41-0003-6687-6, 41-0003-7901-0, 41-0003-7903-6, 41-0003-7904-4, 41-0003-7922-6, 41-0003-7928-3, 41-0003-7930-9, 41-0003-7931-7, 41-0003-7932-5, 41-0003-7933-3, 41-0003-7935-8, 41-0003-7987-9, 41-0003-8059-6, 41-0003-8072-9, 41-0003-8073-7, 41-0003-8074-5, 41-0003-8146-1, 60-4550-6617-9, 60-4550-6830-8, 60-4550-6981-9, 60-4550-6982-7, 60-4550-8123-6, 60-4551-0388-1
7000120090, 7010327931, 7000120133, 7100191003

1.2. Recommended use and restrictions on use

Recommended use

Automotive, hardener for body fillers & glazes

1.3. Supplier's details

MANUFACTURER: 3M
DIVISION: Automotive Aftermarket
ADDRESS: 3M Center, St. Paul, MN 55144-1000, USA
Telephone: 1-888-3M HELPS (1-888-364-3577)

1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

The label elements below were prepared in accordance with OSHA Hazard Communication Standard, 29 CFR 1910.1200. This information may be different from the actual product label information for labels regulated by other agencies.

2.1. Hazard classification

Organic Peroxide: Type E.

Serious Eye Damage/Irritation: Category 2A.

Skin Sensitizer: Category 1B.

Specific Target Organ Toxicity (single exposure): Category 1.

2.2. Label elements

Signal word

Danger

Symbols

Flame | Exclamation mark | Health Hazard |

Pictograms**Hazard Statements**

Heating may cause a fire.

Causes serious eye irritation.

May cause an allergic skin reaction.

Causes damage to organs:

cardiovascular system |

nervous system |

kidney/urinary tract |

respiratory system |

Precautionary Statements**General:**

Keep out of reach of children.

Prevention:

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep away from clothing and other combustible materials.

Keep only in original container.

Do not breathe dust/fume/gas/mist/vapors/spray.

Wear protective gloves and eye/face protection.

Do not eat, drink or smoke when using this product.

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

IF exposed: Call a POISON CENTER or doctor/physician.

Specific treatment (see Notes to Physician on this label).

Storage:

Protect from sunlight.

Store at temperatures not exceeding 32C/90F. Keep cool.

Store locked up.

Store away from other materials.

Disposal:

Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

Notes to Physician:

This product contains ethylene glycol. If there is reasonable suspicion of ethylene glycol poisoning, intravenous (IV) administration with either fomepizole (preferred) or ethanol (if fomepizole is unavailable) should be considered as part of the medical management.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Benzoyl Peroxide	94-36-0	30 - 60 Trade Secret *
Benzoic Acid, C9-11-Branched Alkyl Esters	131298-44-7	10 - 30 Trade Secret *
Water	7732-18-5	10 - 30 Trade Secret *
Calcium Sulfate	7778-18-9	1 - 10 Trade Secret *
Zinc Stearate	557-05-1	1 - 10 Trade Secret *
Ethylene Glycol	107-21-1	<= 7.5 Trade Secret *
Iron Oxide (FE2O3)	1309-37-1	<= 5 Trade Secret *
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	9038-95-3	<= 5 Trade Secret *
Ferric Ammonium Ferrocyanide	25869-00-5	<= 1 Trade Secret *
Ferric Ferrocyanide	14038-43-8	<= 1 Trade Secret *

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Remove person to fresh air. If you feel unwell, get medical attention.

Skin Contact:

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye Contact:

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. Get medical attention.

If Swallowed:

Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Allergic skin reaction (redness, swelling, blistering, and itching). Target organ effects. See Section 11 for additional details.

4.3. Indication of any immediate medical attention and special treatment required

This product contains ethylene glycol. If there is reasonable suspicion of ethylene glycol poisoning, intravenous (IV) administration with either fomepizole (preferred) or ethanol (if fomepizole is unavailable) should be considered as part of the medical management.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode. Part of the oxygen for combustion is supplied by the peroxide itself.

5.3. Special protective actions for fire-fighters

Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Eliminate all ignition sources if safe to do so. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up

Collect as much of the spilled material as possible using non-sparking tools. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not use in a confined area with minimal air exchange. Keep out of reach of children. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage including any incompatibilities

Keep container tightly closed. Protect from sunlight. Store away from heat. Store at temperatures not exceeding 32C/90F. Keep cool. Keep only in original container. Store away from other materials. Keep/store away from clothing and other combustible materials.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Ethylene Glycol	107-21-1	ACGIH	TWA(Vapor fraction):25 ppm; STEL(Vapor fraction):50 ppm; STEL(Inhalable aerosol):10 mg/m ³	A4: Not class. as human carcin
Iron Oxide (FE2O3)	1309-37-1	ACGIH	TWA(respirable fraction):5 mg/m ³	A4: Not class. as human carcin

Iron Oxide (FE2O3)	1309-37-1	OSHA	TWA(as fume):10 mg/m ³	
CYANIDES	14038-43-8	OSHA	TWA(as CN):5 mg/m ³	SKIN
Zinc Stearate	557-05-1	OSHA	TWA(as total dust):15 mg/m ³ ;TWA(respirable fraction):5 mg/m ³	
Calcium Sulfate	7778-18-9	ACGIH	TWA(inhalable fraction):10 mg/m ³	
Calcium Sulfate	7778-18-9	OSHA	TWA(as total dust):15 mg/m ³ ;TWA(respirable fraction):5 mg/m ³	
Benzoyl Peroxide	94-36-0	ACGIH	TWA:5 mg/m ³	A4: Not class. as human carcin
Benzoyl Peroxide	94-36-0	OSHA	TWA:5 mg/m ³	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

OSHA : United States Department of Labor - Occupational Safety and Health Administration

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Provide ventilation adequate to maintain dust concentration below minimum explosive concentrations. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Indirect Vented Goggles

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.

Gloves made from the following material(s) are recommended: Polymer laminate

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapors and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state	Solid
Color	Red

Specific Physical Form:

Odor	Slight Ester
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Odor threshold

No Data Available

pH

No Data Available

Melting point

No Data Available

Boiling Point

No Data Available

Flash Point

111 °C [Test Method:Estimated]

Evaporation rate

No Data Available

Flammability (solid, gas)

Organic Peroxide: Type E.

Flammable Limits(LEL)

Not Applicable

Flammable Limits(UEL)

Not Applicable

Vapor Pressure

Not Applicable

Vapor Density

Not Applicable

Density

1.2 g/cm3

Specific Gravity

1.2 [@ 25 °C] [Ref Std:WATER=1]

Solubility in Water

Negligible

Solubility- non-water

No Data Available

Partition coefficient: n-octanol/ water

No Data Available

Autoignition temperature

No Data Available

Decomposition temperature

No Data Available

Viscosity

No Data Available

Hazardous Air Pollutants

0 - 0.1209 lb HAPS/lb solids [Test Method:Calculated]

Molecular weight

Not Applicable

Volatile Organic Compounds

0 - 90 g/l [Test Method:calculated SCAQMD rule 443.1]

Volatile Organic Compounds

0 % weight [Test Method:calculated per CARB title 2]

Percent volatile

21 - 28.5 %

VOC Less H2O & Exempt Solvents

0 - 121 g/l [Test Method:calculated SCAQMD rule 443.1]

SECTION 10: Stability and reactivity

10.1. Reactivity

This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability

Stable. Stable unless exposed to heat, flames and drying conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Heat

10.5. Incompatible materials

Accelerators

10.6. Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	Not Specified

Carbon dioxide	Not Specified
Toxic Vapor, Gas, Particulate	Not Specified

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin Contact:

May be harmful in contact with skin.

Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye Contact:

Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:

Cardiac Effects: Signs/symptoms may include irregular heartbeat (arrhythmia), changes in heart rate, damage to heart muscle, heart attack, and may be fatal.

Neurological Effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and/or changes in blood pressure and heart rate.

Respiratory Effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish colored skin (cyanosis), sputum production, changes in lung function tests, and/or respiratory failure.

Kidney/Bladder Effects: Signs/symptoms may include changes in urine production, abdominal or lower back pain, increased protein in urine, increased blood urea nitrogen (BUN), blood in urine, and painful urination.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
------	-------	---------	-------

Overall product	Dermal		No data available; calculated ATE >2,000 - ≤5,000 mg/kg
Overall product	Inhalation-Dust/Mist(4 hr)		No data available; calculated ATE >12.5 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Benzoyl Peroxide	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
Benzoyl Peroxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 24.3 mg/l
Benzoyl Peroxide	Ingestion	Rat	LD50 > 5,000 mg/kg
Benzoic Acid, C9-11-Branched Alkyl Esters	Dermal	Rabbit	LD50 > 2,000 mg/kg
Benzoic Acid, C9-11-Branched Alkyl Esters	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5 mg/l
Benzoic Acid, C9-11-Branched Alkyl Esters	Ingestion	Rat	LD50 > 5,000 mg/kg
Calcium Sulfate	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Calcium Sulfate	Ingestion	Rat	LD50 > 5,000 mg/kg
Zinc Stearate	Dermal	Rabbit	LD50 > 2,000 mg/kg
Zinc Stearate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 50 mg/l
Zinc Stearate	Ingestion	Rat	LD50 > 5,000 mg/kg
Ethylene Glycol	Ingestion	Human	LD50 1,600 mg/kg
Ethylene Glycol	Inhalation-Dust/Mist (4 hours)	Other	LC50 estimated to be 5 - 12.5 mg/l
Ethylene Glycol	Dermal	Rabbit	9,530 mg/kg
Iron Oxide (FE2O3)	Dermal	Not available	LD50 3,100 mg/kg
Iron Oxide (FE2O3)	Ingestion	Not available	LD50 3,700 mg/kg
Oxirane, Polymer with Methylloxirane, Monobutyl Ether	Dermal	Rabbit	LD50 > 16,960 mg/kg
Oxirane, Polymer with Methylloxirane, Monobutyl Ether	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 5 mg/l
Oxirane, Polymer with Methylloxirane, Monobutyl Ether	Ingestion	Rat	LD50 4,240 mg/kg
Ferric Ammonium Ferrocyanide	Dermal		LD50 estimated to be > 5,000 mg/kg
Ferric Ferrocyanide	Dermal		LD50 estimated to be > 5,000 mg/kg
Ferric Ammonium Ferrocyanide	Ingestion	Rat	LD50 > 5,110 mg/kg
Ferric Ferrocyanide	Ingestion	Rat	LD50 > 8,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Benzoyl Peroxide	Rabbit	Minimal irritation
Zinc Stearate	Rabbit	No significant irritation
Ethylene Glycol	Rabbit	Minimal irritation
Iron Oxide (FE2O3)	Rabbit	No significant irritation
Oxirane, Polymer with Methylloxirane, Monobutyl Ether	Rabbit	Minimal irritation

Serious Eye Damage/Irritation

Name	Species	Value
Benzoyl Peroxide	Rabbit	Severe irritant
Zinc Stearate	Rabbit	No significant irritation
Ethylene Glycol	Rabbit	Mild irritant
Iron Oxide (FE2O3)	Rabbit	No significant irritation
Oxirane, Polymer with Methylloxirane, Monobutyl Ether	Rabbit	No significant irritation

Skin Sensitization

Name	Species	Value
Benzoyl Peroxide	Guinea pig	Sensitizing
Ethylene Glycol	Human	Not classified
Iron Oxide (FE2O3)	Human	Not classified

Respiratory Sensitization

For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
Benzoyl Peroxide	In Vitro	Not mutagenic
Benzoyl Peroxide	In vivo	Not mutagenic
Ethylene Glycol	In Vitro	Not mutagenic
Ethylene Glycol	In vivo	Not mutagenic
Iron Oxide (FE2O3)	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Benzoyl Peroxide	Ingestion	Multiple animal species	Not carcinogenic
Benzoyl Peroxide	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Ethylene Glycol	Ingestion	Multiple animal species	Not carcinogenic
Iron Oxide (FE2O3)	Inhalation	Human	Some positive data exist, but the data are not sufficient for classification
Oxirane, Polymer with Methylloxirane, Monobutyl Ether	Ingestion	Rat	Not carcinogenic

Reproductive Toxicity**Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test Result	Exposure Duration
Benzoyl Peroxide	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	prematuring & during gestation
Benzoyl Peroxide	Ingestion	Not classified for male reproduction	Rat	NOAEL 500 mg/kg/day	prematuring & during gestation
Benzoyl Peroxide	Ingestion	Not classified for development	Rat	NOAEL 500 mg/kg/day	prematuring & during gestation
Ethylene Glycol	Dermal	Not classified for development	Mouse	NOAEL 3,549 mg/kg/day	during organogenesis
Ethylene Glycol	Ingestion	Not classified for development	Mouse	LOAEL 750 mg/kg/day	during organogenesis
Ethylene Glycol	Inhalation	Not classified for development	Mouse	NOAEL 1,000 mg/kg/day	during organogenesis
Oxirane, Polymer with Methylloxirane, Monobutyl Ether	Inhalation	Not classified for male reproduction	Rat	NOAEL 1 mg/l	2 weeks

Target Organ(s)**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Ethylene Glycol	Ingestion	heart nervous system kidney and/or bladder respiratory system	Causes damage to organs	Human	NOAEL Not available	poisoning and/or abuse
Ethylene Glycol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse
Ethylene Glycol	Ingestion	liver	Not classified	Human	NOAEL Not available	poisoning and/or abuse
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	nervous system	Not classified	Rat	NOAEL Not available	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Ethylene Glycol	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 200 mg/kg/day	2 years
Ethylene Glycol	Ingestion	vascular system	Not classified	Rat	NOAEL 200 mg/kg/day	2 years
Ethylene Glycol	Ingestion	heart hematopoietic system liver immune system muscles	Not classified	Rat	NOAEL 1,000 mg/kg/day	2 years
Ethylene Glycol	Ingestion	respiratory system	Not classified	Mouse	NOAEL 12,000 mg/kg/day	2 years
Ethylene Glycol	Ingestion	skin endocrine system bone, teeth, nails, and/or hair nervous system eyes	Not classified	Multiple animal species	NOAEL 1,000 mg/kg/day	2 years
Iron Oxide (FE2O3)	Inhalation	pulmonary fibrosis pneumoconiosis	Not classified	Human	NOAEL Not available	occupational exposure
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	endocrine system hematopoietic system liver nervous system	Not classified	Rat	NOAEL 1 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL 0.005 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	respiratory system	Not classified	Rat	LOAEL 0.001 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Inhalation	heart	Not classified	Rat	NOAEL 0.5 mg/l	2 weeks
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	liver kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 145 mg/kg/day	90 days
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 500 mg/kg/day	2 years
Oxirane, Polymer with Methyloxirane, Monobutyl Ether	Ingestion	heart endocrine system respiratory system	Not classified	Rat	NOAEL 3,770 mg/kg/day	90 days

Aspiration Hazard

For the component/components, either no data are currently available or the data are not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

SECTION 14: Transport Information

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

EPCRA 311/312 Hazard Classifications:

Physical Hazards

Organic peroxide

Health Hazards

Respiratory or Skin Sensitization

Serious eye damage or eye irritation

Specific target organ toxicity (single or repeated exposure)

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

Ingredient	C.A.S. No	% by Wt
Ethylene Glycol	107-21-1	Trade Secret <= 7.5
Zinc Stearate (ZINC COMPOUNDS)	557-05-1	Trade Secret 1 - 10
Benzoyl Peroxide	94-36-0	Trade Secret 30 - 60
Ferric Ferrocyanide (CYANIDES)	14038-43-8	Trade Secret <= 1

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification

Health: 2 **Flammability:** 1 **Instability:** 0 **Special Hazards:** Oxidizer

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

HMIS Hazard Classification

Health: 4 **Flammability:** 1 **Physical Hazard:** 0 **Personal Protection:** X - See PPE section.

Hazardous Material Identification System (HMIS® IV) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS® IV ratings are to be used with a fully implemented HMIS® IV program. HMIS® is a registered mark of the American Coatings Association (ACA).

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SAFETY DATA SHEET

1. Identification

Product identifier	Dielectric Grease - 10 oz	
Other means of identification		
Product Code	No. 02083 (Item# 1003197)	
Recommended use	Lubricating and insulating electrical components	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier/Distributor information		
Manufactured or sold by:		
Company name	CRC Industries, Inc.	
Address	885 Louis Dr. Warminster, PA 18974 US	
Telephone		
General Information	215-674-4300	
Technical Assistance	800-521-3168	
Customer Service	800-272-4620	
24-Hour Emergency (CHEMTREC)	800-424-9300 (US)	
Website	www.crcindustries.com	

2. Hazard(s) identification

Physical hazards	Flammable aerosols	Category 1
	Gases under pressure	Liquefied gas
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Aspiration hazard	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1
OSHA defined hazards	Not classified.	

Label elements



Signal word

Danger

Hazard statement

Extremely flammable aerosol. Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not apply while equipment is energized. Extinguish all flames, pilot lights, and heaters. Vapors will accumulate readily and may ignite. Use only with adequate ventilation; maintain ventilation during use and until all vapors are gone. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Avoid breathing mist/vapor. Wash thoroughly after handling. Wear eye protection/face protection. Wear protective gloves. Avoid release to the environment.

Response

If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Collect spillage.

Storage

Store in a well-ventilated place. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Exposure to high temperature may cause can to burst.

Disposal

Dispose of contents/container in accordance with local/regional/national regulations.

Hazard(s) not otherwise classified (HNOC)

Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

Supplemental information

None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
methyl acetate		79-20-9	40 - 50
1,1-difluoroethane	HFC-152a	75-37-6	30 - 40
n-heptane		142-82-5	5 - 10
naphtha (petroleum), hydrotreated light		64742-49-0	3 - 5
acetone		67-64-1	1 - 3

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

Skin contact

Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and delayed

Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media

Water fog. Foam. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical	Contents under pressure. Pressurized container may rupture when exposed to heat or flame. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire-fighting equipment/instructions	In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. Use standard firefighting procedures and consider the hazards of other involved materials. In the event of fire and/or explosion do not breathe fumes.
General fire hazards	Extremely flammable aerosol. Contents under pressure. Pressurized container may rupture when exposed to heat or flame.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Remove all possible sources of ignition in the surrounding area. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapors. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Prevent product from entering drains. Stop the flow of material, if this is without risk. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling	Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. Avoid breathing mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices. For product usage instructions, see the product label.
Conditions for safe storage, including any incompatibilities	Level 3 Aerosol. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Avoid spark promoters. These alone may be insufficient to remove static electricity. Store in tightly closed container. Store in a well-ventilated place. Stored containers should be periodically checked for general condition and leakage. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
acetone (CAS 67-64-1)	PEL	2400 mg/m3

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
methyl acetate (CAS 79-20-9)	PEL	1000 ppm 610 mg/m3
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	PEL	200 ppm 400 mg/m3
n-heptane (CAS 142-82-5)	PEL	100 ppm 2000 mg/m3 500 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
acetone (CAS 67-64-1)	STEL	500 ppm
	TWA	250 ppm
methyl acetate (CAS 79-20-9)	STEL	250 ppm
	TWA	200 ppm
n-heptane (CAS 142-82-5)	STEL	500 ppm
	TWA	400 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
acetone (CAS 67-64-1)	TWA	590 mg/m3 250 ppm
methyl acetate (CAS 79-20-9)	STEL	760 mg/m3
	TWA	250 ppm
	TWA	610 mg/m3
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	TWA	200 ppm 400 mg/m3
n-heptane (CAS 142-82-5)	Ceiling	100 ppm 1800 mg/m3
	TWA	440 ppm 350 mg/m3
		85 ppm

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
1,1-difluoroethane (CAS 75-37-6)	TWA	2700 mg/m3
		1000 ppm

Biological limit values**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
acetone (CAS 67-64-1)	25 mg/l	Acetone	Urine	*

* - For sampling details, please see the source document.

Appropriate engineering controls	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection	
Hand protection	Wear protective gloves such as: Laminate film. Nitrile.
Other	Wear appropriate chemical resistant clothing.
Respiratory protection	If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Aerosol.
Color	Translucent. Opaque.
Odor	Solvent.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	-144.4 °F (-98 °C) estimated
Initial boiling point and boiling range	133 °F (56.1 °C) estimated
Flash point	3.9 °F (-15.6 °C) estimated
Evaporation rate	Fast.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	1 % estimated
Flammability limit - upper (%)	16.9 % estimated
Vapor pressure	3262.2 hPa estimated
Vapor density	> 1 (air = 1)
Relative density	0.89 estimated
Solubility(ies)	
Solubility (water)	Negligible.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	500 °F (260 °C) estimated
Decomposition temperature	Not available.
Percent volatile	94.6 % estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.

Conditions to avoid Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with incompatible materials.

Incompatible materials Strong oxidizing agents. Nitrates.

Hazardous decomposition products Carbon oxides. Hydrocarbon fumes and smoke. Aldehydes. Formaldehyde.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause drowsiness and dizziness. Headache. Nausea, vomiting. May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
Symptoms related to the physical, chemical and toxicological characteristics	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways.

Components	Species	Test Results
acetone (CAS 67-64-1)		
Acute		
Dermal		
LD50	Rabbit	> 15800 mg/kg 20000 mg/kg
Inhalation		
LC50	Rat	76 mg/l, 4 Hours
Oral		
LD50	Rat	5800 mg/kg
methyl acetate (CAS 79-20-9)		
Acute		
Oral		
LD50	Rabbit	3.7 g/kg
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
LC50	Rat	61 mg/l, 4 Hours
Oral		
LD50	Rat	> 5000 mg/kg
n-heptane (CAS 142-82-5)		
Acute		
Dermal		
LD50	Rabbit	3000 mg/kg
Inhalation		
Vapor		
LC50	Rat	> 73.5 mg/l, 4 hours
Oral		
LD50	Rat	25000 mg/kg
Skin corrosion/irritation	Causes skin irritation.	

Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Not classifiable as to carcinogenicity to humans.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Not listed.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)	
Not regulated.	
US. National Toxicology Program (NTP) Report on Carcinogens	
Not listed.	
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	May cause respiratory irritation. May cause drowsiness and dizziness.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	May be fatal if swallowed and enters airways.
Chronic effects	Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity	Very toxic to aquatic life with long lasting effects.		
Components	Species		Test Results
acetone (CAS 67-64-1)			
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	4740 - 6330 mg/l, 96 hours
Acute			
Crustacea	EC50	Daphnia magna	10294 - 17704 mg/l, 48 hours
methyl acetate (CAS 79-20-9)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	295 - 348 mg/l, 96 hours
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)			
Aquatic			
Acute			
Crustacea	EC50	Daphnia	1 - 10 mg/l, 48 hours
Fish	LC50	Fish	1 - 10 mg/l, 96 hours
n-heptane (CAS 142-82-5)			
Aquatic			
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	1.5 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	2.1 - 2.98 mg/l, 96 hours
Persistence and degradability	No data is available on the degradability of any ingredients in the mixture.		
Bioaccumulative potential			
Partition coefficient n-octanol / water (log Kow)			
1,1-difluoroethane	0.75		
acetone	-0.24		
methyl acetate	0.18		
n-heptane	4.66		
Bioconcentration factor (BCF)			
naphtha (petroleum), hydrotreated light	10 - 25000		
Mobility in soil	No data available.		

Other adverse effects	The product contains volatile organic compounds which have a photochemical ozone creation potential.
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13. Disposal considerations

Hazardous waste code	D001: Waste Flammable material with a flash point <140 F
Disposal instructions	If discarded, this product is considered a RCRA ignitable waste, D001. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose in accordance with all applicable regulations.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

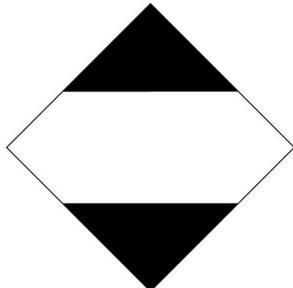
UN number	UN1950
UN proper shipping name	Aerosols, flammable, Limited Quantity
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
Environmental hazards	
Marine pollutant	Yes, but exempt from the regulations.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	N82
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

IATA

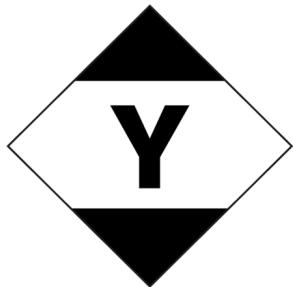
UN number	UN1950
UN proper shipping name	Aerosols, flammable, Limited Quantity
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Packing group	Not applicable.
ERG Code	10L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

UN number	UN1950
UN proper shipping name	AEROSOLS, Limited Quantity
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Packing group	Not applicable.
Environmental hazards	
Marine pollutant	Yes, but exempt from the regulations.
EmS	Not available.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.



IATA



15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

acetone (CAS 67-64-1)

methyl acetate (CAS 79-20-9)

CERCLA Hazardous Substances: Reportable quantity

acetone (CAS 67-64-1)	5000 LBS
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methyl acetate (CAS 79-20-9)	100 LBS
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Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

1,1-difluoroethane (CAS 75-37-6)

Safe Drinking Water Act (SDWA)

Contains component(s) regulated under the Safe Drinking Water Act.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

acetone (CAS 67-64-1)	6532
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Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

acetone (CAS 67-64-1)	35 %WV
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DEA Exempt Chemical Mixtures Code Number

acetone (CAS 67-64-1)	6532
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FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

acetone (CAS 67-64-1)	Low priority
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methyl acetate (CAS 79-20-9)	Low priority
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Food and Drug Administration (FDA)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Classified hazard categories	Flammable (gases, aerosols, liquids, or solids) Gas under pressure Skin corrosion or irritation Serious eye damage or eye irritation Specific target organ toxicity (single or repeated exposure) Aspiration hazard Hazard not otherwise classified (HNOC)
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SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

SARA 313 (TRI reporting)

Not regulated.

US state regulations

US. New Jersey Worker and Community Right-to-Know Act

1,1-difluoroethane (CAS 75-37-6)
acetone (CAS 67-64-1)
methyl acetate (CAS 79-20-9)
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)
n-heptane (CAS 142-82-5)

US. Massachusetts RTK - Substance List

1,1-difluoroethane (CAS 75-37-6)
acetone (CAS 67-64-1)
methyl acetate (CAS 79-20-9)
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)
n-heptane (CAS 142-82-5)

US. Pennsylvania Worker and Community Right-to-Know Law

acetone (CAS 67-64-1)
methyl acetate (CAS 79-20-9)
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)
n-heptane (CAS 142-82-5)

US. Rhode Island RTK

acetone (CAS 67-64-1)
methyl acetate (CAS 79-20-9)
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)
n-heptane (CAS 142-82-5)

California Proposition 65



WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

California Proposition 65 - CRT: Listed date/Carcinogenic substance

acetaldehyde (CAS 75-07-0)	Listed: April 1, 1988
benzene (CAS 71-43-2)	Listed: February 27, 1987
cumene (CAS 98-82-8)	Listed: April 6, 2010
lead (CAS 7439-92-1)	Listed: October 1, 1992

California Proposition 65 - CRT: Listed date/Developmental toxin

benzene (CAS 71-43-2)	Listed: December 26, 1997
lead (CAS 7439-92-1)	Listed: February 27, 1987
methanol (CAS 67-56-1)	Listed: March 16, 2012
toluene (CAS 108-88-3)	Listed: January 1, 1991

California Proposition 65 - CRT: Listed date/Female reproductive toxin

lead (CAS 7439-92-1)	Listed: February 27, 1987
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California Proposition 65 - CRT: Listed date/Male reproductive toxin

benzene (CAS 71-43-2)	Listed: December 26, 1997
lead (CAS 7439-92-1)	Listed: February 27, 1987

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

acetone (CAS 67-64-1)
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)

n-heptane (CAS 142-82-5)

Volatile organic compounds (VOC) regulations

EPA

VOC content (40 CFR 51.100(s))	9.6 %
Consumer products (40 CFR 59, Subpt. C)	Not regulated

State

Consumer products	This product is regulated as a Multi-Purpose Lubricant. This product is compliant for use in all 50 states.
VOC content (CA)	9.6 %
VOC content (OTC)	9.6 %

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	10-22-2019
Prepared by	Allison Yoon
Version #	01
Further information	CRC # 1751578
Disclaimer	The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC's knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or CRC Industries, Inc..
Revision information	This document has undergone significant changes and should be reviewed in its entirety.

Safety Data Sheet



SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

DIESEL FUEL No. 2

Product Use: Fuel Oil

Product Number(s): 180004, 180005, 180006, 180007, 180008, 180009, 180010, 180011, 180012, 180013, 180014, 180015, 180016, 180017, 180020, 180178, 180179, 180181, 180182, 180184, 180185, 180191, 180205, 180206

Company Identification

Chevron Canada Ltd.
1200-1050 West Pender Street
Vancouver, BC V6E 3T4
Canada

Transportation Emergency Response

CHEMTRIC: (800) 424-9300 or (703) 527-3887

Health Emergency

Chevron Emergency & Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

Product Information

Technical Information: (510) 242-5357

SPECIAL NOTES: This SDS covers all Chevron, Texaco and Calco CARB & non-CARB Diesel No. 2 Fuels. The sulfur content is less than 0.5% (mass). Red dye is added to non-taxable fuel. (SDS 6894)

SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION: Flammable liquid: Category 3. Aspiration toxicant: Category 1. Carcinogen: Category 1B. Skin irritation: Category 2. Target organ toxicant (repeated exposure): Category 2. Target organ toxicant (central nervous system): Category 3. Acute inhalation toxicant: Category 4. Acute aquatic toxicant: Category 2. Chronic aquatic toxicant: Category 2.



Signal Word: Danger

Physical Hazards: Flammable liquid and vapour (H226).

Health Hazards: May be fatal if swallowed and enters airways (H304). May cause cancer (H350). Causes skin irritation (H315). Harmful if inhaled (H332). May cause drowsiness or dizziness (H336).

Target Organs:

May cause damage to organs (Blood/Blood Forming Organs, Liver, Thymus) through prolonged or repeated

exposure (H373).

Environmental Hazards: Toxic to aquatic life with long lasting effects (H411).

PRECAUTIONARY STATEMENTS:

General: Keep out of reach of children (P102). Read label before use (P103).

Prevention: Do not handle until all safety precautions have been read and understood (P202). Keep away from heat, sparks, open flames and other ignition sources. No smoking (P210). Obtain special instructions before use (P201). Ground and bond container and receiving equipment (P240). Keep container tightly closed (P233). Avoid release to the environment (P273). Wash thoroughly after handling (P264). Use explosion-proof electrical/ventilating/lighting equipment (P241). Use non-sparking tools (P242). Take action to prevent static discharge (P243). Do not breathe dust/fume/gas/mist/vapours/spray (P260). Use only outdoors or in a well-ventilated area (P271). Wear protective gloves/protective clothing/eye protection/face protection (P280).

Response: IF INHALED: Remove person to fresh air and keep comfortable for breathing (P304+P340). Call a POISON CENTER/doctor if you feel unwell (P312). IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower (P303+P361+P353). If skin irritation occurs: Get medical advice/attention (P332+P313). IF SWALLOWED: Immediately call a POISON CENTER/doctor (P301+P310). Do NOT induce vomiting (P331). IF exposed or concerned: Get medical advice/attention (P308+P313). In case of fire: Use media specified in the SDS to extinguish (P370+P378). Specific treatment (see Notes to Physician on this label) (P321). Collect spillage (P391).

Storage: Store locked up (P405). Store in a well-ventilated place. Keep container tightly closed (P403+P233). Store in a well-ventilated place. Keep cool (P403+P235).

Disposal: Dispose of contents/container in accordance with applicable local/regional/national/international regulations (P501).

SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Total sulfur	Mixture	0 - 5000 ppm
Diesel Fuel No. 2	68476-34-6	80 - 100 %volume
Renewable Diesel	Mixture	10 - 30 %volume
Fatty Acid Methyl Esters (FAME)	Mixture	0 - 5 %volume
Naphthalene	91-20-3	0.1 - 1 %volume

Note that the actual concentration or concentration range of some or all of the above ingredients is considered confidential business information and is being withheld as permitted by WHMIS 2015.

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye: No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

Skin: Wash skin with water immediately and remove contaminated clothing and shoes. Get medical attention if any symptoms develop. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

Ingestion: If swallowed, get immediate medical attention. Do not induce vomiting. Never give anything by mouth to an unconscious person.

Inhalation: Move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if breathing difficulties continue or if any other symptoms develop.

Most important symptoms and effects, both acute and delayed

IMMEDIATE HEALTH EFFECTS

Eye: Not expected to cause prolonged or significant eye irritation.

Skin: Contact with the skin causes irritation. Symptoms may include pain, itching, discoloration, swelling, and blistering. Contact with the skin is not expected to cause an allergic skin response.

Ingestion: Highly toxic; may be fatal if swallowed. Because of its low viscosity, this material can directly enter the lungs, if swallowed, or if subsequently vomited. Once in the lungs it is very difficult to remove and can cause severe injury or death. May be irritating to mouth, throat, and stomach. Symptoms may include pain, nausea, vomiting, and diarrhea.

Inhalation: May be harmful if inhaled. Excessive or prolonged breathing of this material may cause central nervous system effects. Central nervous system effects may include headache, dizziness, nausea, vomiting, weakness, loss of coordination, blurred vision, drowsiness, confusion, or disorientation. At extreme exposures, central nervous system effects may include respiratory depression, tremors or convulsions, loss of consciousness, coma or death.

DELAYED OR OTHER HEALTH EFFECTS:

Cancer: Whole diesel engine exhaust has been classified as a Group 2A carcinogen (probably carcinogenic to humans) by the International Agency for Research on Cancer (IARC). Prolonged or repeated exposure to this material may cause cancer. Contains naphthalene, which has been classified as a Group 2B carcinogen (possibly carcinogenic to humans) by the International Agency for Research on Cancer (IARC).

Target Organs: Contains material that may cause damage to the following organ(s) following repeated inhalation at concentrations above the recommended exposure limit based on animal data: Liver Blood/Blood Forming Organs Thymus See Section 11 for additional information. Risk depends on duration and level of exposure.

Indication of any immediate medical attention and special treatment needed

Note to Physicians: Ingestion of this product or subsequent vomiting may result in aspiration of light hydrocarbon liquid, which may cause pneumonitis.

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

Unusual Fire Hazards: See Section 7 for proper handling and storage.

PROTECTION OF FIRE FIGHTERS:

Fire Fighting Instructions: For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Protective Measures: Eliminate all sources of ignition in the vicinity of the spill or released vapor. If this material is released into the work area, evacuate the area immediately. Monitor area with combustible gas indicator.

Spill Management: Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. All equipment used when handling the product must be grounded. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

Reporting: Report spills to local authorities as appropriate or required.

SECTION 7 HANDLING AND STORAGE

General Handling Information: Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

Precautionary Measures: Liquid evaporates and forms vapor (fumes) which can catch fire and burn with explosive force. Invisible vapor spreads easily and can be set on fire by many sources such as pilot lights, welding equipment, and electrical motors and switches.

Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Do not breathe vapor or fumes. Do not breathe mist. Wash thoroughly after handling. Keep out of the reach of children.

Unusual Handling Hazards: Slow heat generation may occur with oil-soaked rags, spent filter aids and spent absorbent material and may cause spontaneous combustion if stored near combustibles and not handled properly. Store biodiesel soaked rags, filter aids, and spill absorbent material in approved safety disposal containers and dispose of properly. Biodiesel soaked rags may be washed with soap and water and allowed to dry in well ventilated area. **WARNING!** Do not use as portable heater or appliance fuel. Toxic fumes may accumulate and cause death.

Static Hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

Container Warnings: Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

General Storage Information: DO NOT USE OR STORE near heat, sparks, flames, or hot surfaces . USE AND STORE ONLY IN WELL VENTILATED AREA. Keep container closed when not in use.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

ENGINEERING CONTROLS:

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below the recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Eye/Face Protection: No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

Skin Protection: Wear protective clothing to prevent skin contact. Selection of protective clothing may include gloves, apron, boots, and complete facial protection depending on operations conducted. Suggested materials for protective gloves include: Chlorinated Polyethylene (or Chlorosulfonated Polyethylene), Nitrile Rubber, Polyurethane, Viton.

Respiratory Protection: Determine if airborne concentrations are below the recommended occupational exposure limits for jurisdiction of use. If airborne concentrations are above the acceptable limits, wear an approved respirator that provides adequate protection from this material, such as: Air-Purifying Respirator for Organic Vapors.

When used as a fuel, this material can produce carbon monoxide in the exhaust. Determine if airborne concentrations are below the occupational exposure limit for carbon monoxide. If not, wear an approved positive-pressure air-supplying respirator.

Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide

adequate protection.

Occupational Exposure Limits:

Component	Country/ Agency	Form	TWA	STEL	Ceiling	Notation
Diesel Fuel No. 2	ACGIH	Inhalable fraction and vapor	100 mg/m ³	--	--	Skin total hydrocarbon
Diesel Fuel No. 2	ACGIH	Vapor	100 mg/m ³	--	--	Skin
Diesel Fuel No. 2	ACGIH	Vapor and aerosol	100 mg/m ³	--	--	Skin total hydrocarbon
Diesel Fuel No. 2	CVX	Vapor and aerosol	100 mg/m ³	--	--	Skin total hydrocarbon
Naphthalene	ACGIH	Vapor	10 ppm	15 ppm	--	A4 Skin
Naphthalene	ACGIH	--	10 ppm	--	--	Skin

NOTE ON OCCUPATIONAL EXPOSURE LIMITS: Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard Z94.4-2011 Selection, Use and Care of Respirators.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Attention: the data below are typical values and do not constitute a specification.

Color: Varies depending on specification

Physical State: Liquid

Odor: Petroleum odor

Odor Threshold: Not available

pH: Not Applicable

Vapor Pressure: 0.04 kPa (Approximate) @ 40 °C (104 °F)

Vapor Density (Air = 1): >1

Initial Boiling Point: 175.6°C (348.1°F) - 370°C (698°F)

Solubility: Soluble in hydrocarbons; insoluble in water

Freezing Point: Not Applicable

Melting Point: Not Applicable

Specific Gravity: 0.80 - 0.88 @ 15.6°C (60.1°F) (Typical)

Density: Not available

Viscosity: 1.90 cSt - 4.10 cSt @ 40°C (104°F)

Coefficient of Therm. Expansion / °F: Not available

Evaporation Rate: Not available

Decomposition temperature: Not available

Octanol/Water Partition Coefficient: Not available

FLAMMABLE PROPERTIES:

Flammability (solid, gas): Not Available

Flashpoint: (Pensky-Martens Closed Cup) 52 °C (125 °F) (Minimum)

Autoignition: 257 °C (494 °F)

Flammability (Explosive) Limits (% by volume in air): Lower: 0.6 Upper: 4.7

SECTION 10 STABILITY AND REACTIVITY

Reactivity: May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Conditions to Avoid: Avoid contact with heat, sparks, fire and oxidizing agents

Incompatibility With Other Materials: Not applicable

Hazardous Decomposition Products: None known (None expected)

Hazardous Polymerization: Hazardous polymerization will not occur.

Sensitivity to Mechanical Impact: No.

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Serious Eye Damage/Irritation: The eye irritation hazard is based on evaluation of data for similar materials.

Skin Corrosion/Irritation: The skin irritation hazard is based on evaluation of data for similar materials.

Skin Sensitization: The skin sensitization hazard is based on evaluation of data for similar materials.

Acute Dermal Toxicity: The acute dermal toxicity hazard is based on evaluation of data for similar materials.

Acute Oral Toxicity: The acute oral toxicity hazard is based on evaluation of data for similar materials.

Acute Inhalation Toxicity: The acute inhalation toxicity hazard is based on evaluation of data for similar materials. For additional information on the acute toxicity of the components, call the technical information center.

Acute Toxicity Estimate (inhalation): 1.2 mg/l

Germ Cell Mutagenicity: The hazard evaluation is based on data for components or a similar material.

Carcinogenicity: The hazard evaluation is based on data for components or a similar material.

Reproductive Toxicity: The hazard evaluation is based on data for components or a similar material.

Specific Target Organ Toxicity - Single Exposure: The hazard evaluation is based on data for components or a similar material.

Specific Target Organ Toxicity - Repeated Exposure: The hazard evaluation is based on data for components or a similar material.

ADDITIONAL TOXICOLOGY INFORMATION:

This product contains gas oils.

CONCAWE (product dossier 95/107) has summarized current health, safety and environmental data available for a number of gas oils, typically hydrodesulfurized middle distillates, CAS 64742-80-9, straight-run middle distillates, CAS 64741-44-2, and/or light cat-cracked distillate CAS 64741-59-9. CARCINOGENICITY: All materials tested have caused the development of skin tumors in mice, but all featured severe skin irritation and sometimes a long latency period before tumors developed. Straight-run and cracked gas oil samples were studied to determine the influence of dermal irritation on the carcinogenic activity of middle distillates. At non-irritant doses the straight-run gas oil was not carcinogenic, but at irritant doses, weak activity was demonstrated. Cracked gas oils, when diluted with mineral oil, demonstrated carcinogenic activity irrespective of the occurrence of skin irritation. Gas oils were tested on male mice to study tumor initiating/promoting activity. The results demonstrated that while a straight-run gas oil sample was neither an initiator or promotor, a blend of straight-run and FCC stock was both a tumor initiator and a promoter.

GENOTOXICITY: Hydrotreated & hydrodesulfurized gas oils range in activity from inactive to weakly positive in in-vitro bacterial mutagenicity assays. Mouse lymphoma assays on straight-run gas oils without subsequent hydrodesulphurization gave positive results in the presence of S9 metabolic activation. In-vivo bone marrow cytogenetics and sister chromatic exchange assay exhibited no activity for straight-run components with or without hydrodesulphurization. Thermally or catalytically cracked gas oils tested with in-vitro bacterial mutagenicity assays in the presence of S9 metabolic activation were shown to be mutagenic. In-vitro sister chromatic exchange assays on cracked gas oil gave equivocal results both with and without S9 metabolic activation. In-vivo bone marrow cytogenetics assay was inactive for two cracked gas oil samples. Three hydrocracked gas oils were tested with in-vitro bacterial mutagenicity assays with S9, and one of the three gave positive results. Twelve distillate fuel samples were tested with in-vitro bacterial mutagenicity assays & with S9 metabolic activation and showed negative to weakly positive results. In one series, activity was shown to be related to the PCA content of samples tested.

Two in-vivo studies were also conducted. A mouse dominant lethal assay was negative for a sample of diesel fuel. In the other study, 9 samples of No 2 heating oil containing 50% cracked stocks caused a slight increase in the number of chromosomal aberrations in bone marrow cytogenetics assays. DEVELOPMENTAL TOXICITY: Diesel fuel vapor did not cause fetotoxic or teratogenic effects when pregnant rats were exposed on days 6-15 of pregnancy. Gas oils were applied to the skin of pregnant rats daily on days 0-19 of gestation. All but one (coker light gas oil) caused fetotoxicity (increased resorptions, reduced litter weight, reduced litter size) at dose levels that were also maternally toxic.

The National Institute of Occupational Safety and Health (NIOSH) has recommended that whole diesel exhaust be regarded as potentially causing cancer. This recommendation was based on test results showing increased lung cancer in laboratory animals exposed to whole diesel exhaust.

This product contains naphthalene.

GENERAL TOXICITY: Exposure to naphthalene has been reported to cause methemoglobinemia and/or hemolytic anemia, especially in humans deficient in the enzyme glucose-6-phosphate dehydrogenase. Laboratory animals given repeated oral doses of naphthalene have developed cataracts. REPRODUCTIVE TOXICITY AND BIRTH DEFECTS: Naphthalene did not cause birth defects when administered orally to rabbits, rats, and mice during pregnancy, but slightly reduced litter size in mice at dose levels that were lethal to the pregnant females. Naphthalene has been reported to cross the human placenta. GENETIC TOXICITY: Naphthalene caused chromosome aberrations and sister chromatid exchanges in Chinese hamster ovary cells, but was not a mutagen in several other in-vitro tests. CARCINOGENICITY: In a study conducted by the National Toxicology Program (NTP), mice exposed to 10 or 30 ppm of naphthalene by inhalation daily for two years had chronic inflammation of the nose and lungs and increased incidences of metaplasia in those tissues. The incidence of benign lung tumors (alveolar/bronchiolar adenomas) was significantly increased in the high-dose female group but not in the male groups. In another two-year inhalation study conducted by NTP, exposure of rats to 10, 30, and 60 ppm naphthalene caused increases in the incidences of a variety of nonneoplastic lesions in the nose. Increases in nasal tumors were seen in both sexes, including olfactory neuroblastomas in females at 60 ppm and adenomas of the respiratory epithelium in males at all exposure levels. The relevance of these effects to humans has not been established. No carcinogenic effect was reported in a 2-year feeding study in rats receiving naphthalene at 41 mg/kg/day.

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICITY

A series of studies on the acute toxicity of 4 diesel fuel samples were conducted by one laboratory using water accommodated fractions. The range of effective (EC50) or lethal concentrations (LC50) expressed as loading rates were: This material is expected to be toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

72 hour(s) EC50: 2.6-25 mg/l (*Selenastrum capricornutum*)

96 hour(s) LC50: 21-210 mg/l (*Salmo gairdneri*)

48 hour(s) EC50: 20-210 mg/l (*Daphnia magna*)

MOBILITY

No data available.

PERSISTENCE AND DEGRADABILITY

This material is not expected to be readily biodegradable. On release to the environment the lighter components of diesel fuel will generally evaporate but depending on local environmental conditions (temperature, wind, mixing or wave action, soil type, etc.) the remainder may become dispersed in the water column or absorbed to soil or sediment. Diesel fuel would not be expected to be readily biodegradable. In a modified Strum test (OECD method 301B) approximately 40% biodegradation was recorded over 28 days. However, it has been shown that most hydrocarbon components of diesel fuel are degraded in soil in the presence of oxygen. Under anaerobic conditions, such as in anoxic sediments, rates of biodegradation are negligible.

The product has not been tested. The statement has been derived from products of a similar structure and composition.

POTENTIAL TO BIOACCUMULATE

Bioconcentration Factor: No data available.
Octanol/Water Partition Coefficient: No data available

SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by USEPA under RCRA (40CFR261), Environment Canada, or other State, Provincial, and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

TC Shipping Description: SEE IMO/IMDG SHIPPING DESCRIPTION OR REFERENCE BILL OF LADING

IMO/IMDG Shipping Description: For packages with an Initial Boiling Point > 35 deg C and a Flash Point (PM Closed Cup) >/= 23 deg C, </= 60 deg C: UN1202, GAS OIL, 3, III, FLASH POINT SEE SECTION 5 OR 9, MARINE POLLUTANT (DIESEL FUEL); OPTIONAL DISCLOSURE: UN1268, PETROLEUM DISTILLATES, N.O.S. (DIESEL FUEL), 3, III, FLASH POINT SEE SECTION 5 OR 9, MARINE POLLUTANT (DIESEL FUEL) For packages with a Flash Point (PM Closed Cup) > 60 deg C: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIESEL FUEL), 9, III, MARINE POLLUTANT (DIESEL FUEL)

ICAO/IATA Shipping Description: For packages with an Initial Boiling Point > 35 deg C and a Flash Point (PM Closed Cup) >/= 23 deg C, </= 60 deg C: UN1202, GAS OIL, 3, III For packages with a Flash Point (PM Closed Cup) > 60 deg C: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIESEL FUEL), 9, III, MARINE POLLUTANT (DIESEL FUEL)

DOT Shipping Description: For packages with an Initial Boiling Point > 35 deg C and a Flash Point (PM Closed Cup) >/= 23 deg C but </= 60 deg C: UN1202, GAS OIL, 3, III; OPTIONAL DISCLOSURE: UN1202, GAS OIL, 3, III, MARINE POLLUTANT (DIESEL FUEL) Optional disclosure per 49 CFR when Flash Point (PM Closed Cup) >/= 38 deg C < 93 deg C per 49 173.150 (f): UN1202, GAS OIL, COMBUSTIBLE LIQUID, III; NON-BULK PACKAGES ARE EXEMPTED FROM THE PROVISIONS OF 49 CFR IN USA JURISDICTIONS Optional disclosure as a GHS Environmental Hazard/Marine Pollutant when Flash Point (PM Closed Cup) > 60 deg C: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(DIESEL FUEL), 9, III, MARINE POLLUTANT (DIESEL FUEL)

SECTION 15 REGULATORY INFORMATION

REGULATORY LISTS SEARCHED:

- 01-1=IARC Group 1
- 01-2A=IARC Group 2A
- 01-2B=IARC Group 2B

The following components of this material are found on the regulatory lists indicated.
Naphthalene 01-2B

CHEMICAL INVENTORIES:

All components comply with the following chemical inventory requirements: DSL (Canada), TSCA (United States).

SECTION 16 OTHER INFORMATION

REVISION STATEMENT: SECTION 03 - Composition information was added.

SECTION 03 - Composition information was deleted.

SECTION 04 - Immediate Health Effects - Inhalation information was modified.

SECTION 07 - Precautionary Measures information was modified.

SECTION 07 - Unusual Handling Hazards information was modified.

SECTION 08 - General Considerations information was modified.

SECTION 08 - Occupational Exposure Limit Table information was modified.

SECTION 09 - Physical/Chemical Properties information was added.

SECTION 09 - Physical/Chemical Properties information was deleted.

SECTION 09 - Physical/Chemical Properties information was modified.

SECTION 11 - Additional Toxicology Information information was deleted.

SECTION 11 - Toxicological Information information was added.

SECTION 11 - Toxicological Information information was deleted.

SECTION 15 - Chemical Inventories information was modified.

SECTION 15 - Regulatory Information information was modified.

Revision Date: April 16, 2020

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV	-	Threshold Limit Value	TWA	-	Time Weighted Average
STEL	-	Short-term Exposure Limit	PEL	-	Permissible Exposure Limit
GHS	-	Globally Harmonized System	CAS	-	Chemical Abstract Service Number
ACGIH	-	American Conference of Governmental Industrial Hygienists	IMO/IMDG	-	International Maritime Dangerous Goods Code
API	-	American Petroleum Institute	SDS	-	Safety Data Sheet
WHMIS	-	Workplace Hazardous Materials Information System	NFPA	-	National Fire Protection Association (USA)
DOT	-	Department of Transportation (USA)	NTP	-	National Toxicology Program (USA)
IARC	-	International Agency for Research on Cancer	OSHA	-	Occupational Safety and Health Administration
NCEL	-	New Chemical Exposure Limit	EPA	-	Environmental Protection Agency
SCBA	-	Self-Contained Breathing Apparatus			

Prepared according to the WHMIS 2015 by Chevron Energy Technology Company, 6001 Bollinger Canyon Road, San Ramon, CA 94583.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.



SAFETY DATA SHEET

SDS ID NO.: 0290MAR019

Revision date 10/01/2020

1. IDENTIFICATION

Product Name	Marathon Petroleum No. 2 Diesel
Synonym	No. 2 Ultra Low Sulfur Diesel (15 ppm Sulfur Max); No. 2 Low Sulfur Diesel (500 ppm Sulfur Max); ULSD No. 2; ULSD No. 2, dyed; ULSD No. 2 with Additives; ULSD No. 2 w/o Additives; ULSD No. 2 Winter Blends; No 2 MV15 CFI; Export Diesel; No. 2 Fuel Oil; Heating Oil; No. 2 Non-Road Locomotive Marine, Dyed; MGO; ULSD; LSD; NRLM; CARB Diesel
Product code	0290MAR019
Chemical family	Complex Hydrocarbon Substance
Recommended use	Fuel.
Restrictions on use	All others.
Manufacturer, Importer, or Responsible Party Name and Address	MARATHON PETROLEUM COMPANY LP 539 South Main Street Findlay, OH 45840
SDS Information	1-419-421-3070 (M-F; 8-5 EST)
24 Hour Emergency Telephone	CHEMTREC: 1-800-424-9300 (CCN# 13740)

2. HAZARD IDENTIFICATION

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Classification

Flammable liquids	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 2
Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 2
Aspiration toxicity	Category 1
Chronic aquatic toxicity	Category 2

Hazards Not Otherwise Classified (HNOC)

Static accumulating flammable liquid

Label Elements

Danger

FLAMMABLE LIQUID AND VAPOR

May accumulate electrostatic charge and ignite or explode

May be fatal if swallowed and enters airways

Harmful if inhaled

Causes skin irritation

May cause respiratory irritation

May cause drowsiness or dizziness
 Suspected of causing cancer
 May cause damage to organs (thymus, liver, bone marrow) through prolonged or repeated exposure
 Toxic to aquatic life with long lasting effects

**Appearance** Yellow to Red Liquid**Physical State** Liquid**Odor** Hydrocarbon**Precautionary Statements - Prevention**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 Keep container tightly closed
 Ground/bond container and receiving equipment
 Use only non-sparking tools.
 Use explosion-proof electrical/ventilating/lighting/equipment
 Take precautionary measures against static discharge
 Do not breathe mist/vapors/spray
 Use only outdoors or in a well-ventilated area
 Wear protective gloves/protective clothing/eye protection/face protection
 Wash hands and any possibly exposed skin thoroughly after handling
 Avoid release to the environment

Precautionary Statements - Response

IF exposed or concerned: Get medical attention
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
 If skin irritation occurs: Get medical attention
 Wash contaminated clothing before reuse
 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Call a poison center or doctor if you feel unwell
 If swallowed: Immediately call a poison center or doctor
 Do NOT induce vomiting
 In case of fire: Use water spray, fog or regular foam for extinction
 Collect spillage

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed
 Keep cool
 Store locked up

Precautionary Statements - Disposal

Dispose of contents/container at an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

May contain up to 5% Biodiesel.

Composition Information

Name	CAS Number	% Concentration
No. 2 Diesel Fuel	68476-34-6	50-100
Kerosine (petroleum)	8008-20-6	0-50

Fuels, Diesel, C9-18-Alkane Branched and Linear	1159170-26-9	0-5
Alkanes, C10-C20 branched and linear	928771-01-1	0-5
Naphthalene	91-20-3	0.3-2.6

All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

4. FIRST AID MEASURES

First aid measures

General advice

In case of accident or if you feel unwell, seek medical advice immediately (show directions for use or safety data sheet if possible).

Inhalation

Remove to fresh air. If not breathing, utilize bag valve mask or other form of barrier device to institute rescue breathing. If breathing is difficult, ensure airway is clear, give oxygen and continue to monitor. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR). Keep affected person warm and at rest. Get immediate medical attention.

Skin contact

Immediately wash exposed skin with plenty of soap and water while removing contaminated clothing and shoes. May be absorbed through the skin in harmful amounts. Get medical attention if irritation persists. Any injection injury from high pressure equipment should be evaluated immediately by a physician as potentially serious (See NOTES TO PHYSICIAN).

Place contaminated clothing in closed container until cleaned or discarded. If clothing is to be laundered, inform the person performing the operation of contaminant's hazardous properties. Destroy contaminated, non-chemical resistant footwear.

Eye contact

Flush immediately with large amounts of water for at least 15 minutes. Gently remove contacts while flushing. Eyelids should be held away from the eyeball to ensure thorough rinsing. Gently remove contacts while flushing. Get medical attention if irritation persists.

Ingestion

Do not induce vomiting because of danger of aspirating liquid into lungs, causing serious damage and chemical pneumonitis. If spontaneous vomiting occurs, keep head below hips, or if patient is lying down, turn body and head to side to prevent aspiration and monitor for breathing difficulty. Never give anything by mouth to an unconscious person. Keep affected person warm and at rest. Get immediate medical attention.

Most important signs and symptoms, both short-term and delayed with overexposure

Adverse effects

Irritating to the skin and mucous membranes. Symptoms may include redness, itching, and inflammation. May cause nausea, vomiting, diarrhea, and signs of nervous system depression: headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue. Aspiration hazard. May cause coughing, chest pains, shortness of breath, pulmonary edema and/or chemical pneumonitis. Prolonged or repeated exposure may cause adverse effects to the thymus, liver, and bone marrow. Repeated or prolonged skin contact may cause drying, reddening, itching and cracking.

Indication of any immediate medical attention and special treatment needed

Notes to physician

INHALATION: This material (or a component) sensitizes the myocardium to the effects of sympathomimetic amines. Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in individuals exposed to this material. Administration of sympathomimetic drugs should be avoided.

SKIN: Leaks or accidents involving high-pressure equipment may inject a stream of material through the skin and initially produce an injury that may not appear serious. Only a small puncture wound may appear on the skin surface but, without proper treatment and depending on the nature, original pressure, volume, and location of the injected material, can compromise blood supply to an affected body part. Prompt surgical debridement of the wound may be necessary to prevent irreversible loss of function and/or the affected body part. High pressure injection injuries may be SERIOUS SURGICAL EMERGENCIES.

INGESTION: This material represents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	For small fires, Class B fire extinguishing media such as CO ₂ , dry chemical, foam or water spray can be used. For large fires, water spray, fog or foam can be used. Firefighting should be attempted only by those who are adequately trained and equipped with proper protective equipment.
Unsuitable extinguishing media	Do not use straight water streams to avoid spreading fire.
Specific hazards arising from the chemical	This product has been determined to be a flammable liquid per the OSHA Hazard Communication Standard and should be handled accordingly. May accumulate electrostatic charge and ignite or explode. Vapors may travel along the ground or be moved by ventilation and ignited by many sources such as pilot lights, sparks, electric motors, static discharge, or other ignition sources at locations distant from material handling. Flashback can occur along vapor trail. For additional fire related information, see NFPA 30 or the Emergency Response Guidebook 128.
Hazardous combustion products	Smoke, carbon monoxide, and other products of incomplete combustion.
Explosion data	
Sensitivity to mechanical impact:	No.
Sensitivity to static discharge:	Yes.
Special protective equipment and precautions for firefighters	Firefighters should wear full protective clothing and positive-pressure self-contained breathing apparatus (SCBA) with a full face-piece, as appropriate. Avoid using straight water streams. Water spray and foam must be applied carefully to avoid frothing and from as far a distance as possible. Avoid excessive water spray application. Keep surrounding area cool with water spray from a distance and prevent further ignition of combustible material. Keep run-off water out of sewers and water sources.
Additional firefighting tactics	<p>FIRES INVOLVING TANKS OR CAR/TRAILER LOADS: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after the fire is out. Do not direct water at source of leak or safety devices; icing may occur. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles: if this is impossible, withdraw from area and let fire burn.</p> <p>EVACUATION: Consider initial downwind evacuation for at least 1000 feet. If tank, rail car or tank truck is involved in a fire, ISOLATE for 5280 feet (1 mile) in all directions; also, consider initial evacuation of 5280 feet (1 mile) in all directions.</p>

NFPA

Health 1

Flammability 2

Instability 0

Special Hazard -

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Keep public away. Isolate and evacuate area. Shut off source if safe to do so. Eliminate all ignition sources. All contaminated surfaces will be slippery.
Protective equipment	Use personal protection measures as recommended in Section 8.
Emergency procedures	Advise authorities and National Response Center (800-424-8802) if the product has entered a water course or sewer. Notify local health and pollution control agencies, if appropriate.
Environmental precautions	Avoid release to the environment. Avoid subsoil penetration.

Methods and materials for containment Contain liquid with sand or soil. Prevent spilled material from entering storm drains, sewers, and open waterways.

Methods and materials for cleaning up Use suitable absorbent materials such as vermiculite, sand, or clay to clean up residual liquids. Recover and return free product to proper containers. When recovering free liquids ensure all equipment is grounded and bonded. Use only non-sparking tools.

7. HANDLING AND STORAGE

Safe handling precautions

NEVER SIPHON THIS PRODUCT BY MOUTH. Use appropriate grounding and bonding practices. Static accumulating flammable liquid. Bonding and grounding may be insufficient to eliminate the hazard from static electricity. Do not expose to heat, open flames, strong oxidizers or other sources of ignition. Vapors may travel along the ground or be moved by ventilation. Flashback may occur along vapor trails. No smoking. Use only non-sparking tools. Avoid breathing fumes, gas, or vapors. Use only with adequate ventilation. Avoid repeated and prolonged skin contact. Use personal protection measures as recommended in Section 8. Exercise good personal hygiene including removal of soiled clothing and prompt washing with soap and water. Do not cut, drill, grind or weld on empty containers since explosive residues may remain. Refer to applicable EPA, OSHA, NFPA and consistent state and local requirements.

Hydrocarbons are basically non-conductors of electricity and can become electrostatically charged during mixing, filtering, pumping at high flow rates or loading and transfer operations. If this charge reaches a sufficiently high level, sparks can form that may ignite the vapors of flammable liquids. Sudden release of hot organic chemical vapors or mists from process equipment operating under elevated temperature and pressure, or sudden ingress of air into vacuum equipment may result in ignition of vapors or mists without the presence of obvious ignition sources. Nozzle spouts must be kept in contact with the containers or tank during the entire filling operation.

Portable containers should never be filled while in or on a motor vehicle or marine craft. Containers should be placed on the ground. Static electric discharge can ignite fuel vapors when filling non-grounded containers or vehicles on trailers. The nozzle spout must be kept in contact with the container before and during the entire filling operation. Use only approved containers.

A buildup of static electricity can occur upon re-entry into a vehicle during fueling especially in cold or dry climate conditions. The charge is generated by the action of dissimilar fabrics (i.e., clothing and upholstery) rubbing across each other as a person enters/exits the vehicle. A flash fire can result from this discharge if sufficient flammable vapors are present. Therefore, do not get back in your vehicle while refueling.

Cellular phones and other electronic devices may have the potential to emit electrical charges (sparks). Sparks in potentially explosive atmospheres (including fueling areas such as gas stations) could cause an explosion if sufficient flammable vapors are present. Therefore, turn off cellular phones and other electronic devices when working in potentially explosive atmospheres or keep devices inside your vehicle during refueling.

High-pressure injection of any material through the skin is a serious medical emergency even though the small entrance wound at the injection site may not initially appear serious. These injection injuries can occur from high-pressure equipment such as paint spray or grease or guns, fuel injectors, or pinhole leaks in hoses or hydraulic lines and should all be considered serious. High pressure injection injuries may be SERIOUS SURGICAL EMERGENCIES (See First Aid Section 4).

Storage conditions

Store in properly closed containers that are appropriately labeled and in a cool, well-ventilated area. Do not store near an open flame, heat or other sources of ignition.

Incompatible materials

Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Name	ACGIH TLV	OSHA PELS	NIOSH IDLH
No. 2 Diesel Fuel 68476-34-6	100 mg/m ³ TWA Skin - potential significant contribution to overall exposure by the cutaneous route	-	-
Kerosine (petroleum) 8008-20-6	200 mg/m ³ TWA Skin - potential significant contribution to overall exposure by the cutaneous route	-	-
Naphthalene 91-20-3	10 ppm TWA Skin - potential significant contribution to overall exposure by the cutaneous route	TWA: 10 ppm TWA: 50 mg/m ³	250 ppm

Notes: No further information available.

Engineering measures Local or general exhaust required in an enclosed area or with inadequate ventilation. Use mechanical ventilation equipment that is explosion-proof.

Personal protective equipment

Eye protection Use goggles or face-shield if the potential for splashing exists.

Skin and body protection Wear neoprene, nitrile or PVA gloves to prevent skin contact. Glove suitability is based on workplace conditions and usage. Contact the glove manufacturer for specific advice on glove selection and breakthrough times.

Respiratory protection Use a NIOSH approved organic vapor chemical cartridge or supplied air respirators when there is the potential for airborne exposures to exceed permissible exposure limits or if excessive vapors are generated. Observe respirator assigned protection factors (APFs) criteria cited in federal OSHA 29 CFR 1910.134. Self-contained breathing apparatus should be used for fire fighting.

Hygiene measures Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Yellow to Red Liquid
Physical State	Liquid
Color	Yellow to Red
Odor	Hydrocarbon
Odor Threshold	No data available.

Property **Values (method)**

pH	Not applicable
Melting Point / Freezing Point	No data available.
Initial Boiling Point / Boiling Range	154-366 °C / 310-691 °F (ASTM D86)
Flash Point	58-76 °C / 136-168 °F (ASTM D93)
Evaporation Rate	No data available.
Flammability (solid, gas)	Not applicable.
Flammability Limit in Air (%):	
Upper Flammability Limit:	No data available.
Lower Flammability Limit:	No data available.
Explosion Limits	No data available.
Vapor Pressure	No data available.
Vapor Density	No data available.
Specific Gravity / Relative Density	0.82-0.86

Water Solubility	No data available.
Partition Coefficient	No data available.
Autoignition Temperature	No data available.
Decomposition Temperature	No data available.
Kinematic Viscosity	1.7-4.1 cSt @ 40°C (ASTM D445)
VOC Content (%)	No data available.

10. STABILITY AND REACTIVITY

Reactivity	The product is non-reactive under normal conditions.
Chemical stability	The material is stable at 70°F (21°C), 760 mmHg pressure.
Possibility of hazardous reactions	None under normal processing.
Hazardous polymerization	Will not occur.
Conditions to avoid	Excessive heat, sources of ignition, open flame.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	None known under normal conditions of use. However, use in an area without adequate ventilation may result in hazardous levels of carbon monoxide and carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Potential short-term adverse effects from overexposures

Inhalation	Harmful if inhaled. May cause irritation of respiratory tract. May cause drowsiness or dizziness. Breathing high concentrations of this material in a confined space or by intentional abuse can cause irregular heartbeats which can cause death.
Eye contact	Exposure to vapor or contact with liquid may cause mild eye irritation, including tearing, stinging, and redness.
Skin contact	Irritating to skin. Effects may become more serious with repeated or prolonged contact. May be absorbed through the skin in harmful amounts.
Ingestion	May be fatal if swallowed or vomited and enters airways. May cause irritation of the mouth, throat and gastrointestinal tract.

Acute toxicological data

Name	Oral LD50	Dermal LD50	Inhalation LC50
No. 2 Diesel Fuel 68476-34-6	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	>1 - <5 mg/L (Rat) 4 h
Kerosine (petroleum) 8008-20-6	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.28 mg/L (Rat) 4 h
Fuels, Diesel, C9-18-Alkane Branched and Linear 1159170-26-9	-	-	>1 - <5 mg/l (Rat) 4 h
Alkanes, C10-C20 branched and linear 928771-01-1	-	-	>1 - <5 mg/l (Rat) 4 h
Naphthalene 91-20-3	533 mg/kg (Mouse)	> 2000 mg/kg (Rabbit)	> 340 mg/m³ (Rat) 1 h

Immediate and delayed effects as well as chronic effects from short and long-term exposure

PETROLEUM MIDDLE DISTILLATES: Petroleum derived middle distillates have produced skin tumors in mice after repeated and prolonged skin contact. Additional studies indicated prolonged skin irritation contributes to tumor development. Repeated dermal exposures to high concentrations in test animals resulted in reduced litter size and weight, and increased fetal resorptions at doses

toxic to the mother. Inhalation exposure to high concentrations resulted in respiratory tract irritation, lung changes/infiltration/accumulation, and reduction in lung function. Repeated dermal application of petroleum gas oils resulted in decreased liver, thymus, and spleen weights, and altered bone marrow function. Microscopic alterations included liver hypertrophy and necrosis, decreased hematopoiesis and lymphocyte depletion. Altered mental state, drowsiness, peripheral motor neuropathy, irreversible brain damage (so-called Petrol Sniffer's Encephalopathy), delirium, seizures, and sudden death have been reported from repeated overexposure to some hydrocarbon solvents, naphthas, and gasoline.

NAPHTHALENE: Excessive exposure to naphthalene may cause nausea, vomiting, diarrhea, blood in the urine, and a yellow color to the skin. Lifetime inhalation exposure of laboratory rodents to naphthalene resulted in cancers of the respiratory tract in male and female rats. A small increase in cancer of the lung was observed in female mice, but no evidence of lung cancer was observed in male mice. Long-term exposure to excessive airborne naphthalene concentrations may result in destruction of red blood cells, a condition referred to as hemolytic anemia.

DIESEL EXHAUST: The combustion of diesel fuels produces gases including carbon monoxide, carbon dioxide, oxides of nitrogen and/or sulfur, and hydrocarbons that can be irritating and hazardous with overexposure. Long-term occupational overexposure to diesel exhaust and diesel exhaust particulate matter has been associated with an increased risk of respiratory disease, including lung cancer, and is characterized as a "known human carcinogen" by the International Agency for Research on Cancer (IARC), as "a reasonably anticipated human carcinogen" by the National Toxicology Program, and as "likely to be carcinogenic to humans" by the EPA, based upon animal and occupational exposure studies. However, uncertainty exists with these classifications because of deficiencies in the supporting occupational exposure/epidemiology studies, including reliable exposure estimates. Lifetime animal inhalation studies with pulmonary overloading exposure concentrations of diesel exhaust emissions have produced tumors and other adverse health effects. However, in more recent long-term animal inhalation studies of diesel exhaust emissions, no increase in tumor incidence and in fact a substantial reduction in adverse health effects along with significant reductions in the levels of hazardous material emissions were observed and are associated with fuel composition alterations coupled with new technology diesel engines.

Adverse effects related to the physical, chemical and toxicological characteristics

Signs and symptoms Irritating to the skin and mucous membranes. Symptoms may include redness, itching, and inflammation. May cause nausea, vomiting, diarrhea, and signs of nervous system depression: headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue. Aspiration hazard. May cause coughing, chest pains, shortness of breath, pulmonary edema and/or chemical pneumonitis. Repeated or prolonged skin contact may cause drying, reddening, itching and cracking. Prolonged or repeated exposure may cause damage to organs.

Acute toxicity Harmful if inhaled.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation None known.

Sensitization None known.

Mutagenic effects None known.

Carcinogenicity Suspected of causing cancer.

Name	ACGIH (Class)	IARC (Class)	NTP	OSHA
No. 2 Diesel Fuel 68476-34-6	Confirmed animal carcinogen (A3)	Not Classifiable (3)	Not Listed	Not Listed
Kerosine (petroleum) 8008-20-6	Confirmed animal carcinogen (A3)	Not Classifiable (3)	Not Listed	Not Listed
Naphthalene 91-20-3	Confirmed animal carcinogen (A3)	Possible human carcinogen (2B)	Reasonably anticipated to be a human carcinogen	Not Listed

Reproductive toxicity None known.

**Specific Target Organ Toxicity
(STOT) - single exposure** May cause respiratory irritation. May cause drowsiness or dizziness.

Specific Target Organ Toxicity May cause damage to organs (thymus, liver, bone marrow) through prolonged or repeated

(STOT) - repeated exposure exposure.

Aspiration hazard May be fatal if swallowed or vomited and enters airways.

12. ECOLOGICAL INFORMATION

Ecotoxicity This product should be considered toxic to aquatic organisms, with the potential to cause long lasting adverse effects in the aquatic environment.

Name	Fish	Crustacea	Algae/aquatic plants
No. 2 Diesel Fuel 68476-34-6	96-hr LC50 = 35 mg/l Fathead minnow (flow-through)	48-hr EL50 = 6.4 mg/l Daphnia magna	-
Kerosine (petroleum) 8008-20-6	96-hr LL50 = 18-25 mg/l Fish	48-hr EL50 = 1.4-21 mg/l Invertebrates	72-hr EL50 = 5.0-11 mg/l Algae
Naphthalene 91-20-3	96-hr LC50 = 0.91-2.82 mg/l Rainbow trout (static) 96-hr LC50 = 1.99 mg/l Fathead minnow (static)	48-hr LC50 = 1.6 mg/l Daphnia magna	-

Persistence and degradability Expected to be inherently biodegradable.

Bioaccumulation Has the potential to bioaccumulate.

Mobility in soil May partition into air, soil and water.

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Description of waste residues This material may be a flammable liquid waste.

Safe handling of wastes Handle in accordance with applicable local, state, and federal regulations. Use personal protection measures as required. Use appropriate grounding and bonding practices. Use only non-sparking tools. Do not expose to heat, open flames, strong oxidizers or other sources of ignition. No smoking.

Disposal of wastes / methods of disposal The user is responsible for determining if any discarded material is a hazardous waste (40 CFR 262.11). Dispose of in accordance with federal, state and local regulations.

Contaminated packaging disposal Empty containers should be completely drained and then discarded or recycled, if possible. Do not cut, drill, grind or weld on empty containers since explosive residues may be present. Dispose of in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT

UN/Identification No: NA 1993
 UN Proper Shipping Name: Diesel Fuel
 Transport Hazard Class(es): 3
 Packing Group: III

IATA

UN/Identification No: UN 1202
 UN Proper Shipping Name: Diesel Fuel
 Transport Hazard Class(es): 3
 Packing Group: III
 ERG code: 3L

IMDG

UN/Identification No: UN 1202

UN Proper Shipping Name: Diesel Fuel
Transport Hazard Class(es): 3
Packing Group: III
EMS No: F-E, S-E
Marine Pollutant: Yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

15. REGULATORY INFORMATION

Regulatory Information

US TSCA Chemical Inventory	This product and/or its components are listed on the TSCA Chemical Inventory or are exempt.
Canada DSL/NDSL Inventory	This product and/or its components are listed either on the Domestic Substances List (DSL) or are exempt.

EPA Superfund Amendment & Reauthorization Act (SARA)

SARA Section 302	This product does not contain any component(s) included on EPA's Extremely Hazardous Substance (EHS) List above the de minimis threshold.
SARA Section 304	This product may contain component(s) identified either as an EHS or a CERCLA Hazardous substance which in case of a spill or release may be subject to SARA reporting requirements:

Name	Hazardous Substances RQs
Naphthalene 91-20-3	100 lb 45.4 kg

SARA Section 311/312	The following EPA hazard categories apply to this product:
	Flammable Hazard Not Otherwise Classified (HNOC)-Physical Acute toxicity Skin corrosion or irritation Carcinogenicity Specific target organ toxicity Aspiration hazard

SARA Section 313	This product may contain component(s), which if in exceedance of the de minimus threshold, may be subject to the reporting requirements of SARA Title III Section 313 Toxic Release Reporting (Form R).
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Name	CERCLA/SARA 313 Emission reporting
Naphthalene 91-20-3	0.1 % de minimis concentration

U.S. State Regulations

California Proposition 65	This product can expose you to chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm.
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Name	California Proposition 65
No. 2 Diesel Fuel 68476-34-6	Engine exhaust, Carcinogen, initial date 10/01/90
Naphthalene 91-20-3	Carcinogen, initial date 04/19/02

For more information, go to www.P65Warnings.ca.gov.

State Right-To-Know Regulations The following component(s) of this material are identified on the regulatory lists below:

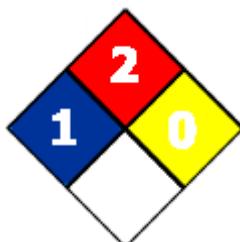
Name	New Jersey Right-To-Know	Pennsylvania Right-To-Know	Massachusetts Right-To-Know
No. 2 Diesel Fuel 68476-34-6	Listed	Listed	Not Listed
Kerosine (petroleum) 8008-20-6	Listed	Listed	Listed
Naphthalene 91-20-3	Listed	Listed	Listed

16. OTHER INFORMATION

Prepared by

Toxicology & Product Safety

NFPA



Revision Notes

Revision date

10/01/2020

Previous publish date

06/01/2016

Revised sections

The following sections (§) have been updated:

- 3. COMPOSITION/INFORMATION ON INGREDIENTS
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 14. TRANSPORT INFORMATION
- 15. REGULATORY INFORMATION

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is intended as guidance for safe handling, use, processing, storage, transportation, accidental release, clean-up and disposal and is not considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

1. Identification

Product identifier QD® Electronic Cleaner - 11 oz

Other means of identification

Product Code No. 05103 (Item# 1003719)

Recommended use Electronic cleaner

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufactured or sold by:

Company name CRC Industries, Inc.

Address 885 Louis Dr.

Warminster, PA 18974 US

Telephone 800-556-5074

**24-Hour Emergency
(CHEMTREC)** 800-424-9300 (US)

Website crcindustries.com

2. Hazard(s) identification

Physical hazards Flammable aerosols Category 1

Gases under pressure Liquefied gas

Health hazards Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 2A

Reproductive toxicity Category 2

Specific target organ toxicity, single exposure Category 3 narcotic effects

Aspiration hazard Category 1

Environmental hazards Hazardous to the aquatic environment, acute hazard Category 2

Hazardous to the aquatic environment, long-term hazard Category 2

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement

Extremely flammable aerosol. Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. Suspected of damaging fertility or the unborn child.

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not apply while equipment is energized. Extinguish all flames, pilot lights, and heaters. Vapors will accumulate readily and may ignite. Use only outdoors or in a well-ventilated area. Maintain ventilation during use and until all vapors are gone. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Avoid breathing mist/vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

Response	If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. If exposed or concerned: Get medical advice/attention.
Storage	Store in a well-ventilated place. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Exposure to high temperature may cause can to burst.
Disposal	Dispose of contents/container in accordance with local/regional/national regulations.
Hazard(s) not otherwise classified (HNOC)	Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
naphtha (petroleum), hydrotreated light		64742-49-0	70 - 80
1,1-difluoroethane	HFC-152a	75-37-6	20 - 30

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.
Skin contact	Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may rupture when exposed to heat or flame. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire-fighting equipment/instructions	In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. Use standard firefighting procedures and consider the hazards of other involved materials. In the event of fire and/or explosion do not breathe fumes.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. In the event of fire and/or explosion do not breathe fumes.

General fire hazards	Extremely flammable aerosol. Contents under pressure. Pressurized container may rupture when exposed to heat or flame.
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6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Remove all possible sources of ignition in the surrounding area. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapor. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Prevent product from entering drains. Stop the flow of material, if this is without risk. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices. For product usage instructions, see the product label.
Conditions for safe storage, including any incompatibilities	Level 3 Aerosol. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Avoid spark promoters. These alone may be insufficient to remove static electricity. Store in tightly closed container. Store in a well-ventilated place. Stored containers should be periodically checked for general condition and leakage. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	PEL	400 mg/m ³
		100 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	TWA	400 mg/m ³
		100 ppm

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
1,1-difluoroethane (CAS 75-37-6)	TWA	2700 mg/m ³
		1000 ppm
Biological limit values	No biological exposure limits noted for the ingredient(s).	
Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower should be available when handling this product.	
Individual protection measures, such as personal protective equipment		
Eye/face protection	Wear safety glasses with side shields (or goggles).	
Skin protection		
Hand protection	Wear protective gloves such as: Nitrile. Polyvinyl chloride (PVC). Viton/butyl.	
Other	Wear appropriate chemical resistant clothing.	
Respiratory protection	If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.	
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.	
General hygiene considerations	When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.	

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Aerosol.
Color	Colorless.
Odor	Alcoholic.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	137 °F (58.3 °C) estimated
Flash point	-0.4 °F (-18.0 °C) estimated
Evaporation rate	Very fast.
Flammability (solid, gas)	Not available.

Upper/lower flammability or explosive limits

Explosive limit - lower (%)	1 % estimated
Explosive limit - upper (%)	7.8 % estimated
Vapor pressure	Not available.
Vapor pressure temp.	68 °F (20 °C)
Vapor density	>1 (air = 1)
Relative density	0.72 estimated
Solubility(ies)	
Solubility (water)	Negligible.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	550.4 °F (288 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Aluminum.
Hazardous decomposition products	Aldehydes. Carbon oxides. Carbonyl fluoride. Fluorocarbons. Formaldehyde. Hydrocarbon fumes and smoke. Hydrogen fluoride.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
Symptoms related to the physical, chemical and toxicological characteristics	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity	May be fatal if swallowed and enters airways.
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Components	Species	Test Results
1,1-difluoroethane (CAS 75-37-6)		
Acute		
Inhalation		
LC50	Mouse	369000 ppm, 2 Hours
naphtha (petroleum), hydrotreated light (CAS 64742-49-0)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg
Inhalation		
Vapor		
LC50	Rat	> 5.2000000000000002 mg/l, 4 hours
Oral		
LD50	Rat	> 5000 mg/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Causes serious eye irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	This product is not expected to cause skin sensitization.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	Not classifiable as to carcinogenicity to humans.	

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity	Suspected of damaging fertility or the unborn child.
Specific target organ toxicity - single exposure	May cause drowsiness and dizziness.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	May be fatal if swallowed and enters airways.
Chronic effects	Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity	Toxic to aquatic life with long lasting effects.
Persistence and degradability	No data is available on the degradability of any ingredients in the mixture.
Bioaccumulative potential	
Partition coefficient n-octanol / water (log Kow)	
1,1-difluoroethane	0.75
Bioconcentration factor (BCF)	
naphtha (petroleum), hydrotreated light	10 - 2500
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	The dispensed liquid product is a RCRA hazardous waste for the characteristic of ignitability with a waste code of D001 (See 40 CFR Part 261.20 – 261.33). Full or partially-full aerosol cans can be treated as universal waste. Empty container can be recycled. Contents under pressure. Do not incinerate sealed containers. Incinerate the material under controlled conditions in an approved incinerator. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose in accordance with all applicable regulations.
Hazardous waste code	Possible RCRA waste code includes: D001: Waste Flammable material with a flash point <140 F
	However, it is the generator's responsibility to determine the proper classification and disposal method at the time of disposal.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT	
UN number	UN1950
UN proper shipping name	Aerosols, flammable, Limited Quantity
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not assigned.
Environmental hazards	
Marine pollutant	Yes, but exempt from regulations.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	N82
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None
IATA	
UN number	UN1950
UN proper shipping name	Aerosols, flammable, Limited Quantity
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Packing group	Not assigned.

ERG Code 10L
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Other information

Passenger and cargo aircraft Allowed with restrictions.

Cargo aircraft only Allowed with restrictions.

IMDG

UN number UN1950

UN proper shipping name AEROSOLS, Limited Quantity

Transport hazard class(es)

Class 2.1

Subsidiary risk -

Packing group Not assigned.

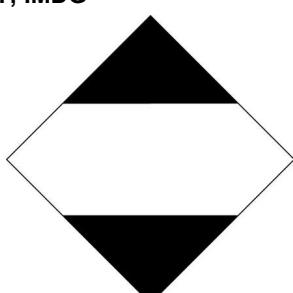
Environmental hazards

Marine pollutant Yes, but exempt from regulations.

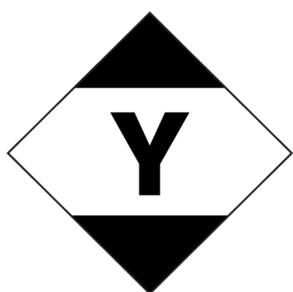
EmS F-D, S-U

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

DOT; IMDG



IATA



15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

CERCLA Hazardous Substances: Reportable quantity

Not listed.

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

1,1-difluoroethane (CAS 75-37-6)

Safe Drinking Water Act (SDWA) Not regulated.

Food and Drug Administration (FDA) Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Classified hazard categories	Flammable (gases, aerosols, liquids, or solids) Gas under pressure Skin corrosion or irritation Serious eye damage or eye irritation Reproductive toxicity Specific target organ toxicity (single or repeated exposure) Aspiration hazard Hazard not otherwise classified (HNOC)
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SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Not regulated.

US state regulations

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Naphtha (petroleum), hydrotreated light; Low boiling point hydrogen treated naphtha (CAS 64742-49-0)

US. New Jersey Worker and Community Right-to-Know Act

1,1-DIFLUOROETHANE (CAS 75-37-6)
NAPHTHA (CAS 64742-49-0)

US. Massachusetts RTK - Substance List

Difluoroethane (CAS 75-37-6)
Naphtha (CAS 64742-49-0)

US. Pennsylvania Worker and Community Right-to-Know Law

Naphtha (CAS 64742-49-0)

US. Rhode Island RTK

VM & P NAPTHA (CAS 64742-49-0)

California Proposition 65



WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

California Proposition 65 - CRT: Listed date/Carcinogenic substance

acetaldehyde (CAS 75-07-0)	Listed: April 1, 1988
ethylbenzene (CAS 100-41-4)	Listed: June 11, 2004
methyl isobutyl ketone (CAS 108-10-1)	Listed: November 4, 2011

California Proposition 65 - CRT: Listed date/Developmental toxin

methanol (CAS 67-56-1)	Listed: March 16, 2012
methyl isobutyl ketone (CAS 108-10-1)	Listed: March 28, 2014
toluene (CAS 108-88-3)	Listed: January 1, 1991

California Proposition 65 - CRT: Listed date/Male reproductive toxin

n-hexane (CAS 110-54-3)	Listed: December 15, 2017
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Volatile organic compounds (VOC) regulations

EPA

VOC content (40 CFR 51.100(s)) 75 %

Consumer products (40 CFR 59, Subpt. C) Not regulated

State

Consumer products This product is regulated as an Electronic Cleaner. This product is compliant for use in all 50 states.

VOC content (CA) 75 %

VOC content (OTC) 75 %

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 03-22-2019

Revision date 08-18-2023

Prepared by Joshua Weir

Version # 03

Further information CRC # 985/1002984

Disclaimer The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC's knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or CRC Industries, Inc..

Revision information Product and Company Identification: Product and Company Identification

Hazard(s) identification: Hazard statement

Hazard(s) identification: Prevention

Composition / Information on Ingredients: Disclosure Overrides

Physical & Chemical Properties: Multiple Properties

Stability and reactivity: Hazardous decomposition products

Disposal considerations: Disposal instructions

Disposal considerations: Hazardous waste code

Transport Information: Proper Shipping Name/Packing Group

GHS: Acute Toxicity Estimate



SAFETY DATA SHEET

Section 1: IDENTIFICATION

1.1 PRODUCT IDENTIFIER

Product Name: Kool-It Evaporator and Heater Foam Cleaner
Product Code: 96030

1.2 RECOMMENDED USE OF CHEMICAL AND RESTRICTIONS ON USE

Use: Cleaner.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Name/Address: International Lubricants, Inc.
P.O. Box 24743, Seattle WA
98124-0743, USA

Telephone Number: (206) 762-5343
(800) 333-LUBE (5823)

1.4 EMERGENCY TELEPHONE NUMBER

Emergency Telephone Number: CHEM TEL (800) 255-3924
CHEM TEL (813) 248-0585

Section 2: HAZARD(S) IDENTIFICATION

2.1 CLASSIFICATION OF THE CHEMICAL ACCORDING TO OSHA HAZCOM 2012

Hazard class

Flammable aerosol 1
Gases under pressure - Liquefied gas
Corrosive to metals 1
Skin corrosion 1B
Serious eye damage 1

2.2 LABEL ELEMENTS ACCORDING TO OSHA HAZCOM 2012

Hazard Pictogram:



Signal Word: Danger

Hazard Statement: Extremely flammable aerosol. Contains gas under pressure; may explode if heated. May be corrosive to metals. Causes severe skin burns and eye damage.

Prevention:

Keep away from heat/sparks/open flames/hot surfaces. -No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not breathe dust/fume/gas/mist/ vapors/spray. Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.



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- Response:** Absorb spillage to prevent material damage. If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center/doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a poison center/doctor. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center/doctor. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor.
- Storage:** Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place. Store in corrosive resistant container with a resistant inner liner. Store locked up.
- Disposal:** Dispose of contents and container in accordance with all local, regional, national and international regulations.

2.3 ADDITIONAL INFORMATION

Hazards not otherwise classified: Not applicable.

WHMIS Classification(s):

Class A - Compressed Gas
Class B5 - Flammable Aerosol
Class E - Corrosive Material

WHMIS Hazard Symbols:



WHMIS Signal Word:

DANGER

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 MIXTURES

Ingredient	CAS No	Wt. %
Propane	74-98-6	3 - 7
n-Butane	106-97-8	3 - 7
Sodium metasilicate	6834-92-0	0.1 - 1
Trisodium phosphate dodecahydrate	10101-89-0	0.1 - 1
Ethylene glycol monobutyl ether	111-76-2	0.1 - 1
Tetrasodium ethylenediaminetetraacetate	64-02-8	0.1 - 1

The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

Section 4: FIRST- AID MEASURES

4.1 DESCRIPTION OF THE FIRST AID MEASURE

- Eye:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. Get medical attention immediately.



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- Skin:** In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention immediately.
- Inhalation:** If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately.
- Ingestion:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

- Eye:** Causes severe eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.
- Skin:** Causes severe skin burns. Symptoms may include irritation, redness, pain, blisters, serious skin burns.
- Inhalation:** Irritating to respiratory tract.
- Ingestion:** Not a normal route of exposure. May be harmful if swallowed. May cause stomach distress, nausea or vomiting. May cause burns.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENTS NEEDED

- Note to Physicians:** Symptoms may not appear immediately.
- Specific Treatments:** In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

Section 5: FIRE-FIGHTING MEASURES

5.1 FLAMMABILITY

- Flammability:** Flammable by WHMIS/OSHA criteria.

5.2 EXTINGUISHING MEDIA

- Suitable Extinguishing Media:** Powder, water spray, foam, carbon dioxide.
- Unsuitable Extinguishing Media:** Not available.

5.3 SPECIAL HAZARDS ARISING FROM THE CHEMICAL

- Products of Combustion:** May include, and are not limited to: oxides of carbon.

Explosion Data:

- Sensitivity to Mechanical Impact:** Not available.
- Sensitivity to Static Discharge:** Not available.

5.4 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS

Containers may explode when heated. Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition. Ruptured cylinders may rocket.



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6.2 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING - UP

Methods for Containment: Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for Cleaning-Up: Scoop up material and place in a disposal container. Provide ventilation.

Section 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Handling: Keep away from sources of ignition. No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not get in eyes, on skin, or on clothing. Do not swallow. Do not breathe dust/fume/gas/fumes/vapor/spray. Use only in well-ventilated areas. When using do not eat or drink. (See section 8)

General Hygiene Advice: Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Storage: Keep out of the reach of children. Keep container dry. Protect from sunlight. Do not store at temperatures above 49 °C / 120 °F. Store in a well-ventilated place. Store in corrosive resistant container with a resistant inner liner. Store locked up. (See section 10)

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Exposure Guidelines

Occupational Exposure Limits		
Ingredient	OSHA-PEL	ACGIH-TLV
Propane	1000 ppm; 1800 mg/m ³	1000 ppm
n-Butane	Not available.	Not available.
Sodium metasilicate	Not available.	Not available.
Trisodium phosphate dodecahydrate	Not available.	Not available.
Ethylene glycol monobutyl ether	50 ppm; 240 mg/m ³	20 ppm
Tetrasodium ethylenediaminetetraacetate	Not available.	Not available.

8.2 EXPOSURE CONTROLS

Engineering Controls: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapour, etc.) below recommended exposure limits.

8.3 INDIVIDUAL PROTECTIVE MEASURES

Personal Protective Equipment:

Eye/Face Protection: Wear approved eye protection (properly fitted dust- or splash-proof chemical safety goggles) and face protection (face shield).

Skin Protection:

Hand Protection: Wear chemically resistant protective gloves.

Body Protection: Wear suitable protective clothing.



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Respiratory Protection: In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

General Health and Safety Measures: Handle according to established industrial hygiene and safety practices.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Foam (when dispensed).
Color:	White.
Odor:	Characteristic.
Odor Threshold:	Not available.
Physical State:	Gas/Pressurized Liquid.
pH:	12.3
Melting Point/Freezing Point:	Not available.
Initial Boiling Point and Boiling Range:	Not available.
Flash Point:	Not available.
Evaporation Rate:	Not available.
Flammability:	Flammable.
Lower Flammability/Explosive Limit:	Not available.
Upper Flammability/Explosive Limit:	Not available.
Vapor Pressure:	Not available.
Vapor Density:	Not available.
Relative Density/Specific Gravity:	1.0078
Solubility:	Not available.
Partition coefficient: n-octanol/water:	Not available.
Auto-ignition Temperature:	Not available.
Decomposition Temperature:	Not available.
Viscosity:	0.84 cSt @ 40 °C (104 °F)
Explosive Properties:	Not available.
Oxidizing Properties:	Not available.

Section 10: STABILITY AND REACTIVITY

10.1 REACTIVITY

No dangerous reaction known under conditions of normal use.

10.2 CHEMICAL STABILITY

Stable under normal storage conditions. Contents under pressure. Container may explode if heated. Do not puncture. Do not burn. Keep in a cool place.



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10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No dangerous reaction known under conditions of normal use.

10.4 CONDITIONS TO AVOID

Heat. Incompatible materials.

10.5 INCOMPATIBLE MATERIALS

Metals.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

May include, and are not limited to: oxides of carbon.

Section 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

Likely Routes of Exposure: Skin contact, eye contact, inhalation, and ingestion.

Symptoms related to physical/chemical/toxicological characteristics:

Eye: Causes severe eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.

Skin: Causes severe skin burns. Symptoms may include irritation, redness, pain, blisters, serious skin burns.

Ingestion: Not a normal route of exposure. May be harmful if swallowed. May cause stomach distress, nausea or vomiting. May cause burns.

Inhalation: Irritating to respiratory tract.

Acute Toxicity:

Ingredient	LC50	LD50
Propane	Inhalation 658 mg/L 4h, rat	Not available.
n-Butane	Inhalation 658 g/m ³ 4h, rat	Not available.
Sodium metasilicate	Not available.	Oral 600 mg/kg, rat
Trisodium phosphate dodecahydrate	Not available.	Oral 7400 mg/kg, rat
Ethylene glycol monobutyl ether	Inhalation 450 ppm 4h, rat	Oral 470 mg/kg, rat
Tetrasodium ethylenediaminetetraacetate	Not available.	Oral 1658 mg/kg, rat

Calculated overall Chemical Acute Toxicity Values		
LC50 (inhalation)	LD50 (oral)	LD50 (dermal)
> 20 mg/L 4h, rat	> 2000 mg/kg, rat	> 2000 mg/kg, rabbit

Ingredient	Chemical Listed as Carcinogen or Potential Carcinogen (NTP, IARC, OSHA, ACGIH, CP65)*
Propane	Not listed.
n-Butane	Not listed.
Sodium metasilicate	Not listed.
Trisodium phosphate dodecahydrate	Not listed.
Ethylene glycol monobutyl ether	G-A3, I-3
Tetrasodium ethylenediaminetetraacetate	Not listed.

* See Section 15 for more information.



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11.2 DELAYED, IMMEDIATE, AND CHRONIC EFFECTS OF SHORT- AND LONG-TERM EXPOSURE

Skin Corrosion/Irritation:	Causes severe skin burns.
Serious Eye Damage/Irritation:	Causes serious eye damage.
Respiratory Sensitization:	Based on available data, the classification criteria are not met.
Skin Sensitization:	Based on available data, the classification criteria are not met.
STOT-Single Exposure:	Based on available data, the classification criteria are not met.
Chronic Health Effects:	
Carcinogenicity:	Based on available data, the classification criteria are not met.
Germ Cell Mutagenicity:	Based on available data, the classification criteria are not met.
Reproductive Toxicity:	
Developmental:	Based on available data, the classification criteria are not met.
Teratogenicity:	Based on available data, the classification criteria are not met.
Embryotoxicity:	Based on available data, the classification criteria are not met.
Fertility:	Based on available data, the classification criteria are not met.
STOT-Repeated Exposure:	Based on available data, the classification criteria are not met.
Aspiration Hazard:	Based on available data, the classification criteria are not met.
Toxicologically Synergistic Materials:	Not available.
Other Information:	Not available.

Section 12: ECOLOGICAL INFORMATION

12.1 ECOTOXICITY

Acute/Chronic Toxicity:	May cause long-term adverse effects in the aquatic environment.
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12.2 PERSISTENCE AND DEGRADABILITY

Not available.

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation:	Not available.
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12.4 MOBILITY IN SOIL

Not available.

12.5 OTHER ADVERSE EFFECTS

Not available.

Section 13: DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Disposal Method:	This material must be disposed of in accordance with all local, state, provincial, and federal regulations.
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Other disposal recommendations:	Not available.
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Section 14: TRANSPORT INFORMATION

14.1 UN NUMBER

DOT	TDG
UN1950	UN1950

14.2 UN PROPER SHIPPING NAME

DOT	TDG
AEROSOLS, flammable	AEROSOLS, flammable

14.3 TRANSPORT HAZARD CLASS (ES)

DOT	TDG
2.1	2.1

14.4 PACKING GROUP

DOT	TDG
Not applicable.	Not applicable.

14.5 ENVIRONMENTAL HAZARDS

Not available.

14.6 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE

Not available.

14.7 SPECIAL PRECAUTIONS FOR USER

Do not handle until all safety precautions have been read and understood.

Section 15: REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/ LEGISLATIONS SPECIFIC FOR THE CHEMICAL

Canada: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

US: SDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

SARA Title III				
Ingredient	Section 302 (EHS) TPQ (lbs.)	Section 304 EHS RQ (lbs.)	CERCLA RQ (lbs.)	Section 313
Propane	Not listed.	Not listed.	Not listed.	Not listed.
n-Butane	Not listed.	Not listed.	Not listed.	Not listed.
Sodium metasilicate	Not listed.	Not listed.	Not listed.	Not listed.
Trisodium phosphate dodecahydrate	Not listed.	Not listed.	5,000	Not listed.
Ethylene glycol monobutyl ether	Not listed.	Not listed.	Not listed.	Not listed.
Tetrasodium ethylenediaminetetraacetate	Not listed.	Not listed.	Not listed.	Not listed.



SAFETY DATA SHEET

State Regulations

California Proposition 65:

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

Global Inventories:

Ingredient	Canada DSL/NDSL	USA TSCA
Propane	DSL	Yes.
n-Butane	DSL	Yes.
Sodium metasilicate	DSL	Yes.
Trisodium phosphate dodecahydrate	No.	No.
Ethylene glycol monobutyl ether	DSL	Yes.
Tetrasodium ethylenediaminetetraacetate	DSL	Yes.

NFPA National Fire Protection Association:

Health:	3
Fire:	4
Reactivity:	0

HMIS-Hazardous Materials Identification System

Health:	3
Fire:	4
Physical Hazard:	0

Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

CP65 **California Proposition 65**

OSHA (O) **Occupational Safety and Health Administration.**

ACGIH (G) **American Conference of Governmental Industrial Hygienists.**

A1 - Confirmed human carcinogen.

A2 - Suspected human carcinogen.

A3 - Animal carcinogen.

A4 - Not classifiable as a human carcinogen.

A5 - Not suspected as a human carcinogen.

IARC (I) **International Agency for Research on Cancer.**

1 - The agent (mixture) is carcinogenic to humans.

2A - The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.

2B - The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals.

3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.

4 - The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.

NTP (N) **National Toxicology Program.**

1 - Known to be carcinogens.

2 - Reasonably anticipated to be carcinogens.

Section 16: OTHER INFORMATION

Date of Preparation: April 29, 2015

Expiry Date: April 29, 2018



SAFETY DATA SHEET

Version: 1.0

Revision Date: April 29, 2015

Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

Prepared by: Nexreg Compliance Inc.
Phone: (519) 488-5126
www.nexreg.com

Prepared for: International Lubricants, Inc.

End of Safety Data Sheet

Safety Data Sheet

Product Name: Fiberglass-Auto Resin

Product identifier: 100498

Revision Date: 08-18-2016

Replaces:



1. Identification

Product identifier used on the label:

Product Name: Fiberglass-Auto Resin

Product identifier: 100498

Other means of identification

Synonyms: No data available

Recommended use of the chemical and restrictions on use:

Polyester Resin Solution

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Chemical Manufacturer /

ITW Evercoat

Importer / Distributor:

a division of Illinois Tool Works Inc.

6600 Cornell Road

Cincinnati, OH 45242

513-489-7600

Emergency phone number:

CHEMTREC: 1-800-424-9300

CANUTEC: 1-613-996-6666

2. Hazard(s) identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

GHS Hazard

Symbols:



GHS Classification:

Reproductive Toxicity Category 1B

Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1

Specific Target Organ Systemic Toxicity (STOT) - Repeated Exposure Category 1

Skin Corrosion/Irritation Category 2

Serious Eye Damage/Eye Irritation Category 2A

Germ Cell Mutagenicity Category 2

Carcinogenicity Category 2

Hazardous to the aquatic environment - Acute Category 2

Flammable Liquid Category 3

Acute Toxicity - Inhalation Dust / Mist Category 4

GHS Signal Word:

Danger

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GHS Hazard Statements:

Flammable liquid and vapour.
Causes skin irritation.
Causes serious eye irritation.
Harmful if inhaled.
Suspected of causing genetic defects.
Suspected of causing cancer.
May damage fertility or the unborn child.
Causes damage to organs.
Causes damage to organs through prolonged or repeated exposure.
Toxic to aquatic life.

GHS Precautionary Statements:

Safety Precautions:

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/fume/gas/mist/vapours/spray.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.

First Aid Measures:

IF ON SKIN: Wash with plenty of soap and water.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.
Rinse skin with water/shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF exposed: Call a POISON CENTER or doctor/physician.
IF exposed or concerned: Get medical advice/attention.
Call a POISON CENTER or doctor/physician if you feel unwell.
Get medical advice/attention if you feel unwell.
Specific treatment (see on this label).
If skin irritation occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
In case of fire: Use appropriate media to extinguish.

Storage:

Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal:

Dispose of contents/container in accordance with

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local/regional/national/international regulation for hazardous wastes.

Hazards not otherwise classified:

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

3. Composition/information on ingredients

Chemical Component:	CAS number and other unique identifiers	% (or range) of ingredient
Styrene	100-42-5	15 - 40

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

4. First-aid measures

Description of necessary measures, subdivided according to the different routes of exposure, i.e., inhalation, skin and eye contact, and ingestion:

Eye Contact:

Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention. Flush eyes gently with water for at least 15 minutes, lifting upper & lower eye lids. Seek immediate medical attention.

Skin Contact:

Wash with soap and water. Get medical attention if irritation develops or persists. Remove contaminated clothing and continue flushing with water. Wash affected area thoroughly with soap and water. Seek medical advice if symptoms persist Wash clothing before reuse.

Inhalation:

Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately. If symptoms develop, immediately move individual away from exposure and into fresh air. Get medical attention immediately. Keep the victim warm and quiet. If the victim has stopped breathing open airway, loosen collar and belt, and administer artificial respiration. If breathing is difficult, oxygen may be beneficial if administered by trained personnel, preferably on a doctor's advice.

Ingestion:

Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this MSDS. Call a physician or poison control center immediately. Do not induce vomiting unless directed to do so by medical personnel. If individual is drowsy or unconscious, do not give anything by mouth; place individual on left side with head down. If possible, do not leave individual unattended.

Most important symptoms/effects, acute and delayed:

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Most important symptoms/effects (Acute): No data available

Most important symptoms/effects (Delayed): No data available

Indication of immediate medical attention and special treatment needed, if necessary: No additional first aid information available

5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media:

Suitable extinguishing media: Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used to extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire. Regular foam Carbon dioxide Dry chemical

Unsuitable extinguishing media: No data available

Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products):

Fire and/or Explosion Hazards: Vapors may be ignited by sparks, flames or other sources of ignition if material is above the flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide, Styrene oxide, Hydrocarbons

Special protective equipment and precautions for fire-fighters: Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Water may be used to cool closed containers to prevent pressure build-up and possible auto ignition or explosion when exposed to extreme heat. Wear a self contained breathing apparatus (NIOSH approved) with a full face piece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment.

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6. Accidental release measures

Personal precautions, protective equipment, and emergency procedures:

Methods and materials for containment and cleaning up:

No health affects expected from the clean-up of this material if contact can be avoided. Follow personal protective equipment recommendations found in Section VIII of this MSDS.

No special spill clean-up considerations. Collect and discard in regular trash. Shut off ignition sources; including electrical equipment and flames. Do not allow smoking in the area. Activate available exhaust ventilation equipment in the immediate spill area. All personnel in the area should be protected as in Section 8. Avoid breathing vapors. Use an inert absorbent such as sand or vermiculite. Place in properly labeled closed container.

7. Handling and storage

Precautions for safe handling:

Mildly irritating material. Avoid unnecessary exposure. All hazard precautions given in the data sheet must be observed. Do not get in eyes, on skin and clothing. Wash hands before eating. Use with adequate ventilation. Avoid contact with material, avoid breathing dusts or fumes, use only in a well ventilated area. Do not take internally. Keep container closed when not in use. Keep out of the reach of children.

Conditions for safe storage, including any incompatibilities

Conditions for safe storage:

Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Store in a cool dry place. For maximum product quality, avoid prolonged storage at temperatures above 75 °F (25 °C). Keep away from heat, sparks, and flame. Store in a tightly closed container. Avoid contact with incompatible materials.

Materials to Avoid/Chemical Incompatibility:

Oxygen Peroxides Strong acids Strong oxidizing agents

8. Exposure controls/personal protection

OSHA permissible exposure limit (PEL), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available:

Chemical Component	OSHA PEL	ACGIH TLV-TWA	ACGIH STEL
Styrene	100 ppm	20 ppm	40 ppm STEL; 170 mg/m ³ STEL

Appropriate engineering controls:

No exposure limits exist for the constituents of this product. Use local exhaust ventilation or other engineering controls to minimize exposures and maintain operator comfort. General or local

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ventilation or isolation may prove adequate to keep airborne exposures below exposure limits. Explosion proof exhaust ventilation should be used.

Individual protection measures, such as personal protective equipment:

Eye Protection:	Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses. Splash proof chemical goggles are recommended to protect against the splash of product.
Skin Protection:	Not normally considered a skin hazard. Where use can result in skin contact, practice good personal hygiene and wear a barrier cream and/or impervious surgical style gloves. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. Protective gloves and proper clothing should be worn to prevent skin contact. Gloves should be made of neoprene or natural rubber. To prevent repeated or prolonged skin contact, wear impervious clothing and boots
Respiratory Protection:	Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. Use a NIOSH approved respirator designed to remove particulate matter and organic solvent vapors.
Other Protective Equipment:	Splash proof chemical goggles are recommended to protect against the splash of product. Protective gloves and proper clothing should be worn to prevent skin contact. Gloves should be made of neoprene or natural rubber. To prevent repeated or prolonged skin contact, wear impervious clothing and boots

9. Physical and chemical properties

Appearance (physical state, color, etc.):

Appearance (physical state): Liquid

Color: Pink Hazy

Odor: Aromatic

Odor threshold: No data available

pH: Neutral

Melting Point/Freezing Point (°C): No data available

Initial Boiling Point and Boiling Range (°C): 145

Flash Point (°C): 31.6

Evaporation Rate: No data available

Flammability (solid, gas): No data available

Upper/lower flammability or explosive limits:

Upper Flammable/Explosive Limit (%): 6.1

Lower Flammable/Explosive Limit (%): 1.1

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Vapor Pressure:	No data available
Vapor Density:	Heavier than air. Vapors that evolve from this product will tend to settle and accumulate near the floor.
Relative Density:	Not determined
Solubility(ies):	Insoluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition Temperature (°C):	No data available
Decomposition Temperature:	No data available
Viscosity:	No data available
VOC (as applied*- 2% by wt hardener- less exempts and water):	0.44 lbs/gal or 53 g/L

10. Stability and reactivity

Reactivity:	No data available
Chemical stability:	Stable under normal conditions.
Possibility of hazardous reactions:	No data available
Conditions to avoid (e.g., static discharge, shock, or vibration):	No data available
Incompatible materials:	Oxygen Peroxides Strong acids Strong oxidizing agents
Hazardous decomposition products:	Carbon dioxide Carbon monoxide Styrene oxide Hydrocarbons

11. Toxicological information

Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact):	Ingestion, Skin contact, Eye contact, Absorption
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Symptoms related to the physical, chemical and toxicological characteristics:	No data available
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Delayed and immediate effects and also chronic effects from short- and long-term exposure:

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache. Excessive inhalation of vapors may cause nasal and respiratory irritation, acute nervous system depression, fatigue, weakness, nausea, headache and dizziness. Airborne overexposure well above the PEL may result additionally in eye irritation, headache, chemical bronchitis, asthma-like findings or pulmonary edema.
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Skin Contact:	Can cause minor skin irritation, defatting, and dermatitis.
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Skin Absorption:	Causes skin irritation. Contact may cause irritation and possible dermatitis or
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sensitization. Symptoms may include redness, burning, drying and cracking of skin, and skin burns

Eye Contact: Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue. Contact with liquid or vapor may result in irritation, redness, tearing, and blurred vision.

Ingestion Irritation: Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea. Causes gastrointestinal tract irritation, nausea, vomiting, diarrhea and possible ulcerations to mucous membranes. Aspiration of material into the lungs can cause chemical pneumonitis which can be fatal.

Ingestion Toxicity: Harmful if swallowed. May cause systemic poisoning.

Long-Term (Chronic) Health Effects:

Carcinogenicity: Suspected of causing cancer. The International Agency for Research on Cancer (IARC) has classified styrene as a group 2B carcinogen (possibly carcinogenic to humans).

Reproductive and Developmental Toxicity: May damage fertility or the unborn child.

Mutagenicity: Suspected of causing genetic defects.

Inhalation: Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.

Skin Contact: Upon prolonged or repeated contact, can cause minor skin irritation, defatting, and dermatitis.

Numerical measures of toxicity (such as acute toxicity estimates)

Component Toxicology Data

Chemical Component	Oral LD50	Dermal LD50	Inhalation LC50
Styrene	Oral LD50 Rat 5000 mg/kg		Inhalation LC50 (4h) Rat 24 g/m3

Whether the hazardous chemical is listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA

Chemical Name	OSHA Carcinogen	IARC Carcinogen	NTP Carcinogen
Styrene	N	Y	Y

12. Ecological information

Ecotoxicity (aquatic and terrestrial, where available): Toxic to aquatic life. Styrene is toxic to aquatic organisms and should not be released

to sewage, draining systems or any body of water exceeding concentrations of approved limits under applicable regulations and permits.

Persistence and degradability: No data available

Bioaccumulative potential: No data

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Mobility in soil: No data available

Other adverse effects (such as hazardous to the ozone layer): No data available

Ecological Toxicity Data

Chemical Component	Aquatic EC50 Crustacea	Aquatic ERC50 Algae	Aquatic LC50 Fish
No data available			

13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging

Description of waste residues: Spent or discarded material is a hazardous waste.

Safe Handling of Waste: This material as supplied, if discarded, would be regulated as a hazardous waste under RCRA (40 CFR 261).

Waste treatment methods (including packaging): Dispose of by incineration following Federal, State, Local, or Provincial regulations.

Waste Disposal Code(s): D001

14. Transport information

UN number: UN3269

UN proper shipping name: POLYESTER RESIN KIT

Transport hazard class(es): 3

Packing group: III

The shipper is responsible for following all applicable regulations. The transportation classification provided is based on ITW Evercoat original packaging, which is suitable for domestic ground transport only.

15. Regulatory information

Safety, health and environmental regulations specific for the product in question

TSCA Status: A component or components of this product are listed on the TSCA Inventory of Existing Chemical Substances.

Regulated Components

Chemical Component	CAS number and other unique identifiers	CERCLA	SARA EHS	SARA 313	California Prop 65
Styrene	100-42-5	N	N	Y	Y

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16. Other information, including date of preparation or last revision.

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Revision Number: 16

Disclaimer: **NOTICE:** The information accumulated herein is believed to be correct as of the date issued from sources, which are believed to be accurate and reliable. Since it is not possible to anticipate all circumstances of use, recipients are advised to confirm, in advance of need, that the information is current, applicable and suitable to their circumstances

SAFETY DATA SHEET

1. Identification

Product identifier: FSR20 FLEX SEAL LIQUID RUBBER SEALANT COATING

Other means of identification

SDS number: RE1000030030

Recommended restrictions

Product Use: Coating

Restrictions on use: Not known.

Manufacturer/Importer/Distributor Information

Manufacturer

Company Name: SWIFT RESPONSE, LLC
Address: 2690 WESTON RD.
WESTON, FL 33331
Telephone: 800-307-6201
Fax:

Emergency telephone number: 1-866-836-8855

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Flammable aerosol	Category 1
Gases under pressure	Liquefied gas

Health Hazards

Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2A
Germ Cell Mutagenicity	Category 1B
Carcinogenicity	Category 1B
Toxic to reproduction	Category 2
Specific Target Organ Toxicity - Single Exposure	Category 3 ¹
Specific Target Organ Toxicity - Repeated Exposure	Category 2
Aspiration Hazard	Category 1

Target Organs

1. Narcotic effect.

Environmental Hazards

Acute hazards to the aquatic environment	Category 2
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Label Elements

Hazard Symbol:



Signal Word: Danger

Hazard Statement: Extremely flammable aerosol.
Causes skin irritation.
Causes serious eye irritation.
May cause genetic defects.
May cause cancer.
Suspected of damaging fertility or the unborn child.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.
May be fatal if swallowed and enters airways.
Toxic to aquatic life.
Contains gas under pressure; may explode if heated.

Precautionary Statements

Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid release to the environment.

Response: IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. Call a POISON CENTER/doctor if you feel unwell. Specific treatment (see on this label). Take off contaminated clothing.

Storage: Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC): None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%) [*]
Benzene, methyl-	108-88-3	10 - <20%
Butane	106-97-8	10 - <20%
Naphtha (petroleum), heavy alkylate	64741-65-7	10 - <20%
Propane	74-98-6	5 - <10%
Distillates (petroleum), light distillate hydrotreating process, low-boiling	68410-97-9	1 - <5%
Limestone	1317-65-3	1 - <5%
Carbon black	1333-86-4	1 - <5%
Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-	5989-27-5	0.1 - <1%
Silica	7631-86-9	0.1 - <1%
Benzene, dimethyl-	1330-20-7	0.1 - <1%
White mineral oil (petroleum)	8042-47-5	0.1 - <1%
Aluminum oxide (Al ₂ O ₃)	1344-28-1	0.1 - <1%
Acetic acid, butyl ester	123-86-4	0.1 - <1%
Stoddard solvent	8052-41-3	0.1 - <1%
Benzene, ethyl-	100-41-4	0.1 - <1%
Quartz (SiO ₂)	14808-60-7	0.1 - <1%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

- Ingestion:** Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
- Inhalation:** Move to fresh air.
- Skin Contact:** Get medical attention. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.
- Eye contact:** Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

Most important symptoms/effects, acute and delayed

Symptoms: No data available.

Hazards: No data available.

Indication of immediate medical attention and special treatment needed

Treatment: No data available.

5. Fire-fighting measures

- General Fire Hazards:** Use water spray to keep fire-exposed containers cool. Fight fire from a protected location. Move containers from fire area if you can do so without risk.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:	Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media:	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical:	Vapors may travel considerable distance to a source of ignition and flash back.

Special protective equipment and precautions for firefighters

Special fire fighting procedures:	No data available.
Special protective equipment for fire-fighters:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep upwind. See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.
Methods and material for containment and cleaning up:	Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.
Notification Procedures:	Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk.
Environmental Precautions:	Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

7. Handling and storage

Precautions for safe handling:	Wash hands thoroughly after handling. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Avoid contact with skin. Avoid contact with eyes, skin, and clothing.
Conditions for safe storage, including any incompatibilities:	Store locked up. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Aerosol Level 3

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values		Source
Benzene, methyl-	STEL	150 ppm	560 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	100 ppm	375 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	100 ppm	375 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	Ceiling	300 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	TWA	20 ppm		US. ACGIH Threshold Limit Values (2008)
	TWA	200 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	MAX. CONC	500 ppm		US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	STEL	150 ppm	560 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Butane	REL	800 ppm	1,900 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	STEL	1,000 ppm		US. ACGIH Threshold Limit Values (03 2018)
	TWA	800 ppm	1,900 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Naphtha (petroleum), heavy alkylate	PEL	100 ppm	400 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	100 ppm	400 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL	100 ppm	400 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
Propane	REL	1,000 ppm	1,800 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	1,000 ppm	1,800 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	1,000 ppm	1,800 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Distillates (petroleum), light distillate hydrotreating process, low-boiling - Mist.	STEL		10 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA		5 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	REL		5 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL		5 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Limestone - Total	REL		10 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Limestone - Respirable.	REL		5 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Limestone - Respirable fraction.	PEL		5 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Limestone - Total dust.	PEL		15 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA		15 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Limestone - Respirable fraction.	TWA		5 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Carbon black	REL		3.5 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL		3.5 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Carbon black - Inhalable fraction.	TWA		3 mg/m ³	US. ACGIH Threshold Limit Values (12 2010)
Carbon black	TWA		3.5 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Carbon black - as PAHs	REL		0.1 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2016)
Silica	TWA		6 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA		20 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)

	TWA	0.8 mg/m3		US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
	REL	6 mg/m3		US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Benzene, dimethyl-	STEL	150 ppm	655 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	100 ppm		US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	100 ppm		US. ACGIH Threshold Limit Values (2008)
	REL	100 ppm	435 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2016)
	PEL	100 ppm	435 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	STEL	150 ppm		US. ACGIH Threshold Limit Values (2008)
	STEL	150 ppm	655 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2016)
White mineral oil (petroleum) - Mist.	REL	5 mg/m3		US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	5 mg/m3		US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	STEL	10 mg/m3		US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	5 mg/m3		US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
White mineral oil (petroleum) - Inhalable fraction.	TWA	5 mg/m3		US. ACGIH Threshold Limit Values (01 2010)
Aluminum oxide (Al ₂ O ₃) - Respirable fraction.	TWA	5 mg/m3		US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Aluminum oxide (Al ₂ O ₃) - Total dust.	PEL	15 mg/m3		US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Aluminum oxide (Al ₂ O ₃) - Respirable fraction.	TWA	1 mg/m3		US. ACGIH Threshold Limit Values (2009)
Aluminum oxide (Al ₂ O ₃) - Total dust.	TWA	10 mg/m3		US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Aluminum oxide (Al ₂ O ₃) - Respirable fraction.	PEL	5 mg/m3		US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Aluminum oxide (Al ₂ O ₃) - Total dust.	TWA	50 millions of particles per cubic foot of air		US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
Aluminum oxide (Al ₂ O ₃) - Respirable fraction.	TWA	15 millions of particles per cubic foot of air		US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
	TWA	5 mg/m3		US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
Aluminum oxide (Al ₂ O ₃) - Total dust.	TWA	15 mg/m3		US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
Acetic acid, butyl ester	REL	150 ppm	710 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	150 ppm	710 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	PEL	150 ppm	710 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	50 ppm		US. ACGIH Threshold Limit Values (03 2016)
	STEL	200 ppm	950 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	STEL	200 ppm	950 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	STEL	150 ppm		US. ACGIH Threshold Limit Values (03 2016)
Stoddard solvent	TWA	100 ppm		US. ACGIH Threshold Limit Values (2008)
	REL	350 mg/m3		US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	PEL	500 ppm	2,900 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	Ceil_Time	1,800 mg/m3		US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	100 ppm	525 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Benzene, ethyl-	STEL	125 ppm	545 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	REL	100 ppm	435 mg/m3	US. NIOSH: Pocket Guide to Chemical

			Hazards (2005)
	PEL	100 ppm 435 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	STEL	125 ppm 545 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	100 ppm 435 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	20 ppm	US. ACGIH Threshold Limit Values (12 2010)
Quartz (SiO ₂) - Respirable dust.	REL	0.05 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
Quartz (SiO ₂) - Respirable.	TWA	2.4 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
	TWA	0.1 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
Quartz (SiO ₂) - Respirable fraction.	TWA	0.025 mg/m3	US. ACGIH Threshold Limit Values (2008)
Quartz (SiO ₂) - Respirable dust.	TWA	0.1 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Quartz (SiO ₂) - Respirable dust.	TWA	0.05 mg/m3	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (03 2016)
Quartz (SiO ₂) - Respirable dust.	PEL	0.05 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (03 2016)
Quartz (SiO ₂) - Respirable dust.	OSHA_AC_T	0.025 mg/m3	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (03 2016)
Benzene, (1-methylethyl)-	REL	50 ppm 245 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	50 ppm	US. ACGIH Threshold Limit Values (2008)
	PEL	50 ppm 245 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	50 ppm 245 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	1 ppm	US. ACGIH Notice of Intended Changes (NIC) to Threshold Limit Values (03 2018)
Benzene	REL	0.1 ppm	US. NIOSH: Pocket Guide to Chemical Hazards (2005)
	TWA	1 ppm	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	Ceiling	25 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	TWA	0.5 ppm	US. ACGIH Threshold Limit Values (2008)
	STEL	2.5 ppm	US. ACGIH Threshold Limit Values (2008)
	STEL	5 ppm	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (02 2006)
	OSHA_AC_T	0.5 ppm	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (02 2006)
	TWA	10 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	MAX. CONC	50 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	STEL	5 ppm	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	1 ppm	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (02 2006)
	STEL	1 ppm	US. NIOSH: Pocket Guide to Chemical Hazards (2005)

Biological Limit Values

Chemical Identity	Exposure Limit Values	Source
Benzene, methyl- (toluene: Sampling time: End of shift.)	0.03 mg/l (Urine)	ACGIH BEL (03 2013)
Benzene, methyl- (o-Cresol, with hydrolysis: Sampling time: End of shift.)	0.3 mg/g (Creatinine in urine)	ACGIH BEL (03 2013)
Benzene, methyl- (toluene: Sampling time: Prior to last shift of work week.)	0.02 mg/l (Blood)	ACGIH BEL (03 2013)
Benzene, dimethyl- (Methylhippuric acids: Sampling time: End of shift.)	1.5 g/g (Creatinine in urine)	ACGIH BEL (03 2013)
Benzene, ethyl- (Sum of mandelic acid and phenylglyoxylic acid: Sampling time: End of shift.)	0.15 g/g (Creatinine in urine)	ACGIH BEL (02 2014)
Benzene (S- Phenylmercapturic acid: Sampling time: End of shift.)	25 µg/g (Creatinine in urine)	ACGIH BEL (03 2013)
Benzene (t,t-Muconic acid: Sampling time: End of shift.)	500 µg/g (Creatinine in urine)	ACGIH BEL (03 2013)

Appropriate Engineering Controls

No data available.

Individual protection measures, such as personal protective equipment

General information: Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin Protection

Hand Protection:

No data available.

Other:

Wear suitable protective clothing. Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

Respiratory Protection:

In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

Hygiene measures:

Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. When using do not smoke. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Wash contaminated clothing before reuse. Avoid contact with skin. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state:	liquid
Form:	Spray Aerosol
Color:	No data available.
Odor:	No data available.
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	No data available.
Flash Point:	Estimated -104.4 °C
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	Estimated 7 %(V)
Flammability limit - lower (%):	Estimated 1 %(V)
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	Estimated 2,757 hPa (21 °C)
Vapor density:	No data available.
Density:	No data available.
Relative density:	No data available.
Solubility(ies)	
Solubility in water:	No data available.
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	No data available.
Conditions to avoid:	Avoid heat or contamination.
Incompatible Materials:	No data available.
Hazardous Decomposition Products:	No data available.

11. Toxicological information

Information on likely routes of exposure

Inhalation: No data available.

Skin Contact: No data available.

Eye contact: No data available.

Ingestion: No data available.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation: No data available.

Skin Contact: No data available.

Eye contact: No data available.

Ingestion: No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral Product: Not classified for acute toxicity based on available data.

Specified substance(s):

Benzene, methyl-	LD 50 (Rat): 5,580 mg/kg
Naphtha (petroleum), heavy alkylate	LD 50: > 2,000 mg/kg
Distillates (petroleum), light distillate hydrotreating process, low-boiling	LD 50 (Rat): > 5,000 mg/kg
Limestone	LD 50: > 2,000 mg/kg
Carbon black	LD 50 (Rat): > 8,000 mg/kg
Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-	LD 50 (Rat): > 2,000 mg/kg
Silica	LD 50 (Rat): > 5,000 mg/kg
Benzene, dimethyl-	LD 50 (Rat): 3,523 mg/kg
White mineral oil (petroleum)	LD 50 (Rat): > 5,000 mg/kg
Aluminum oxide (Al ₂ O ₃)	LD 50 (Rat): > 10,000 mg/kg
Acetic acid, butyl ester	LD 50 (Rat): 14,130 mg/kg
Stoddard solvent	LD 50: > 2,000 mg/kg
Benzene, ethyl-	LD 50 (Rat): 3,500 mg/kg
Quartz (SiO ₂)	LD 50: > 5,000 mg/kg

Dermal Product:

Not classified for acute toxicity based on available data.

Specified substance(s):

Benzene, methyl-	LD 50 (Rabbit): > 5,000 mg/kg
Naphtha (petroleum), heavy alkylate	LD 50: > 2,000 mg/kg
Distillates (petroleum), light distillate hydrotreating process, low-boiling	LD 50 (Rabbit): > 2,000 mg/kg
Limestone	LD 50: > 2,000 mg/kg
Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-	LD 50 (Rabbit): > 5,000 mg/kg
Silica	LD 50 (Rabbit): > 5,000 mg/kg
Benzene, dimethyl-	LD 50 (Rabbit): 12,126 mg/kg LD 50: 2,000 mg/kg
White mineral oil (petroleum)	LD 50 (Rabbit): > 2,000 mg/kg
Acetic acid, butyl ester	LD 50 (Rabbit): > 5,000 mg/kg
Stoddard solvent	LD 50: > 2,000 mg/kg
Benzene, ethyl-	ATE: > 2,000 mg/kg
Quartz (SiO ₂)	LD 50: > 5,000 mg/kg

**Inhalation
Product:**

Not classified for acute toxicity based on available data.

Specified substance(s):

Benzene, methyl-	LC 50 (Rat): 28.1 mg/l LC 50: > 100 mg/l
Butane	LC 50: > 100 mg/l LC 50: > 100 mg/l
Naphtha (petroleum), heavy alkylate	LD 50: > 5 mg/l
Propane	LC 50: > 100 mg/l LC 50: > 100 mg/l
Distillates (petroleum), light distillate hydrotreating process, low-boiling	LC 50 (Rat): > 7,630 mg/m ³
Limestone	LC 50: > 5 mg/l LC 50: > 20 mg/l
Carbon black	LOAEL (Rat): > 4.6 mg/m ³
Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-	LC 50: > 20 mg/l LC 50: > 5 mg/l
Silica	LC 50 (Rat): > 58.8 mg/l
Benzene, dimethyl-	LC 50: 20 mg/l LC 50: 10 mg/l
White mineral oil (petroleum)	LC 50 (Rat): > 5 mg/l LC 50: > 20 mg/l
Aluminum oxide (Al ₂ O ₃)	LC 50 (Rat): 7.6 mg/l LC 50 (Rat): > 2.3 mg/l
Acetic acid, butyl ester	LC 50 (Rat): > 23.4 mg/l LC 50 (Rat): > 21 mg/l
Stoddard solvent	LC 50: > 5 mg/l LC 50: > 20 mg/l
Benzene, ethyl-	LC 50: 11 mg/l
Quartz (SiO ₂)	LD 50: > 5 mg/l

Repeated dose toxicity

Product:	No data available.
Specified substance(s):	
Benzene, methyl-	LOAEL (Rat(Female, Male), Oral, 13 Weeks): 1,250 mg/kg (Target Organ(s): Liver, Kidney) Oral Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation): 625 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation - vapor): 2,355 mg/l Inhalation Experimental result, Key study
Butane	LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study
Propane	NOAEL (Rat(Female, Male), Inhalation, >= 28 d): 4,000 ppm(m) Inhalation Experimental result, Key study LOAEL (Rat(Female, Male), Inhalation, >= 28 d): 12,000 ppm(m) Inhalation Experimental result, Key study
Distillates (petroleum), light distillate hydrotreating process, low-boiling	NOAEL (Rat(Female, Male), Inhalation): 9,840 mg/m3 Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Dermal, 5 - 28 d): 3,750 mg/kg Dermal Experimental result, Key study NOAEL (Rat(Male), Oral, 28 d): < 500 mg/kg Oral Experimental result, Supporting study
Carbon black	NOAEL (Rat(Female), Oral, 52 - 104 Weeks): 52 mg/kg Oral Experimental result, Key study NOAEL (Rat(Male), Inhalation): 1.1 mg/m3 Inhalation Experimental result, Key study
Cyclohexene, 1-methyl-4-(1-methylethylene)-, (4R)-Silica	NOAEL (Rat(Male), Oral, 13 Weeks): 600 mg/kg Oral Experimental result, Key study NOAEL (Rat(Female, Male), Oral, 13 Weeks): 4,000 mg/kg Oral Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation): 1.3 mg/m3 Inhalation Experimental result, Key study
Benzene, dimethyl-	NOAEL (Rat(Female), Oral, 90 d): 150 mg/kg Oral Experimental result, Key study
White mineral oil (petroleum)	NOAEL (Rat(Female, Male), Oral, 90 d): >= 20,000 ppm(m) Oral Experimental result, Key study NOAEL (Rabbit(Female, Male), Dermal): 1,000 mg/kg Dermal Read-across from supporting substance (structural analogue or surrogate), Key study LOAEL (Rat(Female, Male), Inhalation): 210 mg/m3 Inhalation Experimental result, Key study
Aluminum oxide (Al2O3)	NOAEL (Rat, Inhalation, 6 - 12 Months): 70 mg/m3 Inhalation Experimental result, Key study LOAEL (Rat(Female, Male), Oral, 28 - 53 d): 1,000 mg/kg Oral Read-across from supporting substance (structural analogue or surrogate), Weight of Evidence study
Acetic acid, butyl ester	NOAEL (Rat(Female, Male), Inhalation, 13 Weeks): 500 ppm(m) Inhalation Experimental result, Key study
Stoddard solvent	NOAEL (Rat, Inhalation - vapor): 1.9 mg/l (Target Organ(s): Nervous System)
Benzene, ethyl-	NOAEL (Mouse(Female, Male), Inhalation, 104 Weeks): 75 ppm(m) Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Oral, 28 d): 75 mg/kg Oral Experimental result, Key study

Skin Corrosion/Irritation

Product:	No data available.	
Specified substance(s):		
Benzene, methyl-	in vivo (Rabbit): Irritating	Experimental result, Key study
Carbon black	in vivo (Rabbit): Not irritant	Experimental result, Key study
Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-	in vivo (Rabbit): Not irritant	Experimental result, Key study
Silica	in vivo (Rabbit): Not irritant	Experimental result, Key study
Benzene, dimethyl-	in vivo (Rabbit): Irritating.	Experimental result, Weight of Evidence study
White mineral oil (petroleum)	in vivo (Rabbit): Not irritant	Experimental result, Key study
Aluminum oxide (Al ₂ O ₃)	in vivo (Rabbit): Not irritant	Experimental result, Key study
Acetic acid, butyl ester	in vivo (Rabbit): Not irritant	Experimental result, Key study

Serious Eye Damage/Eye Irritation

Product:	No data available.	
Specified substance(s):		
Benzene, methyl-	Rabbit, 24 - 72 hrs: Not irritating	
Distillates (petroleum), light distillate hydrotreating process, low-boiling	Rabbit, 24 - 72 hrs: Not irritating	
Carbon black	Rabbit, 24 - 72 hrs: Not irritating	
Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-	Rabbit, 24 - 72 hrs: Not irritating	
Silica	Rabbit, 24 - 72 hrs: Not irritating	
Benzene, dimethyl-	Rabbit, 1 hrs: Slightly irritating (Not Classified)	
White mineral oil (petroleum)	Rabbit, 24 - 72 hrs: Not irritating	
Aluminum oxide (Al ₂ O ₃)	Rabbit, 48 - 72 hrs: Not irritating	
Acetic acid, butyl ester	Rabbit, 24 - 72 hrs: Not irritating	
Benzene, ethyl-	Rabbit, 7 d: Slightly irritating	

Respiratory or Skin Sensitization

Product:	No data available.
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Specified substance(s):

Benzene, methyl-	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Distillates (petroleum), light distillate	Skin sensitization:, in vivo (Guinea pig): Non sensitising
hydrotreating process, low-boiling	
Carbon black	Skin sensitization:, in vivo (Guinea pig): Non sensitising
White mineral oil (petroleum)	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Aluminum oxide (Al ₂ O ₃)	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Acetic acid, butyl ester	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Benzene, ethyl-	Skin sensitization:, in vivo (Human): Non sensitising

Carcinogenicity

Product: No data available.

Specified substance(s):

Stoddard solvent Potential cancer hazard.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

Carbon black	Overall evaluation: 2B. Possibly carcinogenic to humans.
Benzene, ethyl-	Overall evaluation: 2B. Possibly carcinogenic to humans.
Quartz (SiO ₂)	Overall evaluation: 1. Carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens:

Quartz (SiO₂) Known To Be Human Carcinogen.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

Quartz (SiO₂) Cancer

Germ Cell Mutagenicity

In vitro
Product: No data available.

In vivo
Product: No data available.

Reproductive toxicity

Product: No data available.

Specified substance(s):
Benzene, methyl- Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity - Single Exposure

Product: Inhalation - dust and mist: Narcotic effect. - Category 3 with narcotic effects.

Specific Target Organ Toxicity - Repeated Exposure

Product: Category 2

Target Organs

Specific Target Organ Toxicity - Single Exposure: Narcotic effect.

Aspiration Hazard

Product: No data available.

Specified substance(s):

Benzene, methyl-	May be fatal if swallowed and enters airways.
Naphtha (petroleum), heavy alkylate	May be fatal if swallowed and enters airways.
Distillates (petroleum), light distillate	May be fatal if swallowed and enters airways.
hydrotreating process, low-boiling	
White mineral oil (petroleum)	May be fatal if swallowed and enters airways.
Stoddard solvent	May be fatal if swallowed and enters airways.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Benzene, methyl-	LC 50 (Oncorhynchus kisutch, 96 h): 5.5 mg/l Experimental result, Key study
Butane	LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study
Propane	LC 50 (Various, 96 h): 147.54 mg/l QSAR QSAR, Key study
Distillates (petroleum), light distillate	LL 50 (Pimephales promelas, 96 h): 8.2 mg/l Experimental result, Key study
hydrotreating process, low-boiling	
Carbon black	LC 0 (Danio rerio, 96 h): 1,000 mg/l Experimental result, Key study
Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-	EC 50 (Pimephales promelas, 96 h): 688 µg/l Experimental result, Key study
Silica	LL 0 (Danio rerio, 96 h): 10,000 mg/l Experimental result, Key study
Benzene, dimethyl-	LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 96 h): 6.702 - 10.032 mg/l Mortality
White mineral oil (petroleum)	NOAEL (Oncorhynchus mykiss, 96 h): >= 100 mg/l Experimental result, Key study
	LL 50 (Oncorhynchus mykiss, 96 h): > 100 mg/l Experimental result, Key study
Aluminum oxide (Al2O3)	LC 50 (Oncorhynchus mykiss, 96 h): 6.17 mg/l Other, Weight of Evidence

	study
Acetic acid, butyl ester	LC 50 (Pimephales promelas, 96 h): 18 mg/l Experimental result, Key study
Benzene, ethyl-	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 38.9 - 62.83 mg/l Mortality
Aquatic Invertebrates Product:	No data available.
Specified substance(s):	
Benzene, methyl-	LC 50 (Water flea (Daphnia magna), 48 h): 54.6 - 174.7 mg/l Mortality LC 50 (Ceriodaphnia dubia, 2 d): 3.78 mg/l Experimental result, Key study
Butane	LC 50 (Daphnia sp., 48 h): 69.43 mg/l QSAR QSAR, Key study
Distillates (petroleum), light distillate hydrotreating process, low-boiling	EC 50 (Daphnia magna, 48 h): 4.5 mg/l Experimental result, Key study NOAEL (Daphnia magna, 48 h): 0.5 mg/l Experimental result, Key study
Carbon black	EC 50 (Daphnia magna, 24 h): > 5,600 mg/l Experimental result, Key study
Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-	EC 50 (Daphnia magna, 48 h): 0.36 mg/l Experimental result, Key study NOAEL (Daphnia magna, 48 h): 0.074 mg/l Experimental result, Key study
Silica	EC 50 (Daphnia magna, 24 h): > 1,000 mg/l Experimental result, Key study
Benzene, dimethyl-	LC 50 (Water flea (Daphnia magna), 24 h): 150 mg/l Mortality
White mineral oil (petroleum)	NOAEL (Daphnia magna, 48 h): >= 100 mg/l Experimental result, Key study
Aluminum oxide (Al ₂ O ₃)	LC 50 (Daphnia magna, 48 h): 38.2 mg/l Experimental result, Weight of Evidence study
Acetic acid, butyl ester	EC 50 (Daphnia sp., 48 h): 44 mg/l Experimental result, Key study
Benzene, ethyl-	LC 50 (Water flea (Daphnia magna), 24 h): 57 - 100 mg/l Mortality

Chronic hazards to the aquatic environment:

Fish Product:	No data available.
Specified substance(s):	
Benzene, methyl-	NOAEL (Oncorhynchus kisutch): 1.39 mg/l Experimental result, Key study LOAEL (Oncorhynchus kisutch): 2.77 mg/l Experimental result, Key study
Distillates (petroleum), light distillate hydrotreating process, low-boiling	NOAEL (Pimephales promelas): 2.6 mg/l Experimental result, Supporting study
Carbon black	NOAEL (Salmo sp.): 17 mg/l QSAR QSAR, Key study
Benzene, dimethyl-	NOAEL (Oncorhynchus mykiss): > 1.3 mg/l Experimental result, Key study
White mineral oil (petroleum)	NOAEL (Oncorhynchus mykiss): >= 1,000 mg/l QSAR QSAR, Supporting study

Aquatic Invertebrates**Product:**

No data available.

Specified substance(s):

Benzene, methyl-

LOAEL (Ceriodaphnia dubia): 2.76 mg/l Experimental result, Key study
NOAEL (Ceriodaphnia dubia): 0.74 mg/l Experimental result, Key study

Distillates (petroleum),
light distillate
hydrotreating process,
low-boiling

NOAEL (Daphnia magna): 2.6 mg/l Experimental result, Key study

Carbon black

EC 50 (Daphnia sp.): 4.9 mg/l QSAR QSAR, Key study

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-

NOAEL (Freshwater invertebrates, species frequently include Daphnia magna or Daphnia pulex): 0.115 mg/l QSAR QSAR, Weight of Evidence study

Benzene, dimethyl-

NOAEL (Ceriodaphnia dubia): 1.17 mg/l Read-across from supporting substance (structural analogue or surrogate), Key study

White mineral oil
(petroleum)

NOAEL (Daphnia magna): >= 1,000 mg/l QSAR QSAR, Supporting study

Aluminum oxide (Al₂O₃)

NOAEL (Daphnia magna): 1.89 mg/l Experimental result, Weight of Evidence study

Acetic acid, butyl ester

EC 50 (Daphnia magna): 34 mg/l Read-across from supporting substance (structural analogue or surrogate), Key study
NOAEL (Daphnia magna): 23 mg/l Read-across from supporting substance (structural analogue or surrogate), Key study

Benzene, ethyl-

LC 50 (Ceriodaphnia dubia): 3.2 mg/l Other, Key study
NOAEL (Ceriodaphnia dubia): 1 mg/l Other, Key study

Toxicity to Aquatic Plants**Product:**

No data available.

Persistence and Degradability**Biodegradation****Product:**

No data available.

Specified substance(s):

Benzene, methyl-

100 % (14 d) Detected in water. Experimental result, Weight of Evidence study

86 % Detected in water. Experimental result, Weight of Evidence study

Butane

100 % (385.5 h) Detected in water. Experimental result, Key study

Propane

100 % (385.5 h) Detected in water. Experimental result, Key study

50 % (3.19 d) Detected in water. QSAR, Weight of Evidence study

Distillates (petroleum),
light distillate
hydrotreating process,
low-boiling

90.35 % (28 d) Detected in water. Experimental result, Supporting study

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-	80 % (28 d) Detected in water. Read-across from supporting substance (structural analogue or surrogate), Key study
Benzene, dimethyl-	87.8 % Detected in water. Read-across from supporting substance (structural analogue or surrogate), Key study
White mineral oil (petroleum)	31 % (28 d) Detected in water. Read-across from supporting substance (structural analogue or surrogate), Supporting study
Acetic acid, butyl ester	83 % Detected in water. Experimental result, Not specified
Benzene, ethyl-	2.7 % Detected in water. Other, Supporting study 70 - 80 % (28 d) Detected in water. Experimental result, Key study

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential**Bioconcentration Factor (BCF)**

Product: No data available.

Specified substance(s):

Benzene, methyl- Leuciscus idus, Bioconcentration Factor (BCF): 90 Aquatic sediment Experimental result, Key study

Distillates (petroleum), light distillate hydrotreating process, low-boiling Bioconcentration Factor (BCF): 10 - 2,500 Aquatic sediment Estimated by calculation, Key study

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)- Bioconcentration Factor (BCF): 864.8 Aquatic sediment QSAR, Key study

Benzene, dimethyl- Oncorhynchus mykiss, Bioconcentration Factor (BCF): > 7.6 - < 21.6 Aquatic sediment Experimental result, Key study

Acetic acid, butyl ester Bioconcentration Factor (BCF): 15.3 Aquatic sediment Estimated by calculation, Supporting study

Benzene, ethyl- Carassius auratus, Bioconcentration Factor (BCF): 15.5 Aquatic sediment Other, Supporting study

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Specified substance(s):

Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)- Log Kow: 4.34 - 4.46 25 °C No Experimental result, Supporting study

Benzene, dimethyl- Log Kow: 2.77 - 3.15 No Not specified, Not specified

Benzene, ethyl- Log Kow: 3.13 - 3.14 No Other, Supporting study

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

Benzene, methyl-	No data available.
Butane	No data available.
Naphtha (petroleum), heavy alkylate	No data available.
Propane	No data available.
Distillates (petroleum), light distillate hydrotreating process, low-boiling Limestone	No data available.
Carbon black	No data available.
Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-	No data available.
Silica	No data available.
Benzene, dimethyl-	No data available.
White mineral oil (petroleum)	No data available.
Aluminum oxide (Al ₂ O ₃)	No data available.
Acetic acid, butyl ester	No data available.
Stoddard solvent	No data available.
Benzene, ethyl-	No data available.
Quartz (SiO ₂)	No data available.

Other adverse effects: Toxic to aquatic organisms.

13. Disposal considerations

Disposal instructions: Discharge, treatment, or disposal may be subject to national, state, or local laws.

Contaminated Packaging: No data available.

14. Transport information

DOT

UN Number:	UN 1950
UN Proper Shipping Name:	Aerosols, flammable
Transport Hazard Class(es)	
Class:	2.1
Label(s):	—
Packing Group:	Not applicable
Marine Pollutant:	No
Environmental Hazards:	No
Marine Pollutant	No
Special precautions for user:	Not regulated.

IMDG

UN Number:	UN 1950
UN Proper Shipping Name:	Aerosols, flammable
Transport Hazard Class(es)	
Class:	2
Label(s):	—
EmS No.:	F-D, S-U
Packing Group:	—
Environmental Hazards:	Yes

Marine Pollutant No
Special precautions for user: Not regulated

IATA

UN Number:	UN 1950
Proper Shipping Name:	Aerosols, flammable
Transport Hazard Class(es):	
Class:	2.1
Label(s):	—
Packing Group:	—
Environmental Hazards:	Yes
Marine Pollutant	No
Special precautions for user:	Not regulated.
Cargo aircraft only:	Allowed.

15. Regulatory information

US Federal Regulations

Restrictions on use: Not known.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

<u>Chemical Identity</u>	<u>OSHA hazard(s)</u>
Quartz (SiO ₂)	lung effects immune system effects Cancer kidney effects
Benzene	Flammability Cancer Aspiration Eye Blood Skin respiratory tract irritation Central nervous system

CERCLA Hazardous Substance List (40 CFR 302.4):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Benzene, methyl-	lbs. 1000
Butane	lbs. 100
Propane	lbs. 100
Benzene, dimethyl-	lbs. 100
Acetic acid, butyl ester	lbs. 5000
Benzene, ethyl-	lbs. 1000
Benzene, (1-methylethyl)-	lbs. 5000
Benzene	lbs. 10

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate (Acute) Health Hazards
Delayed (Chronic) Health Hazard
Flammable aerosol
Skin Corrosion/Irritation
Serious Eye Damage/Eye Irritation
Germ Cell Mutagenicity
Carcinogenicity
Toxic to reproduction
Specific Target Organ Toxicity - Single Exposure
Specific Target Organ Toxicity - Repeated Exposure
Aspiration Hazard

SARA 302 Extremely Hazardous Substance

<u>Chemical Identity</u>	<u>Reportable quantity</u>	<u>Threshold Planning Quantity</u>
Stoddard solvent		

SARA 304 Emergency Release Notification

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Benzene, methyl-	lbs. 1000
Butane	lbs. 100
Propane	lbs. 100
Benzene, dimethyl-	lbs. 100
Acetic acid, butyl ester	lbs. 5000
Stoddard solvent	
Benzene, ethyl-	lbs. 1000
Benzene, (1-methylethyl)-	lbs. 5000
Benzene	lbs. 10

SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Benzene, methyl-	10000 lbs
Butane	10000 lbs
Naphtha (petroleum), heavy alkylate	10000 lbs
Propane	10000 lbs
Distillates (petroleum), light distillate hydrotreating process, low-boiling	10000 lbs
Limestone	10000 lbs
Carbon black	10000 lbs
Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-	10000 lbs
Silica	10000 lbs
Benzene, dimethyl-	10000 lbs
White mineral oil (petroleum)	10000 lbs
Aluminum oxide (Al ₂ O ₃)	10000 lbs
Acetic acid, butyl ester	10000 lbs
Stoddard solvent	10000 lbs
Benzene, ethyl-	10000 lbs
Quartz (SiO ₂)	10000 lbs
Benzene, (1-methylethyl)-	10000 lbs
Benzene	10000 lbs

SARA 313 (TRI Reporting)

<u>Chemical Identity</u>	<u>Reporting threshold for other users</u>	<u>Reporting threshold for manufacturing and processing</u>
Benzene, methyl-	lbs	lbs.
Benzene, ethyl-	lbs	lbs.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

US State Regulations

US. California Proposition 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

Benzene, methyl-	Developmental toxin. 03 2008
Carbon black	Carcinogenic. 05 2011
Benzene, ethyl-	Carcinogenic. 05 2011
Quartz (SiO ₂)	Carcinogenic. 05 2011
Benzene, (1-methylethyl)-	Carcinogenic. 05 2011
Benzene	Developmental toxin. 03 2008
Benzene	Carcinogenic. 05 2011
Benzene	Male reproductive toxin. 03 2008

US. New Jersey Worker and Community Right-to-Know Act

Chemical Identity

Benzene, methyl-
Butane
Naphtha (petroleum), heavy alkylate
Propane
Distillates (petroleum), light distillate hydrotreating process, low-boiling
Limestone
Carbon black
White mineral oil (petroleum)
Benzene, ethyl-
Quartz (SiO₂)

US. Massachusetts RTK - Substance List

Chemical Identity

Quartz (SiO₂)
Benzene

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

Benzene, methyl-
Butane
Naphtha (petroleum), heavy alkylate
Propane
Distillates (petroleum), light distillate hydrotreating process, low-boiling
Limestone
Carbon black

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

International regulations

Montreal protocol

Stoddard solvent

Stockholm convention

Stoddard solvent

--

Rotterdam convention

Stoddard solvent

--

Kyoto protocol

Inventory Status:	
Australia AICS:	On or in compliance with the inventory
Canada DSL Inventory List:	On or in compliance with the inventory
EINECS, ELINCS or NLP:	Not in compliance with the inventory.
Japan (ENCS) List:	Not in compliance with the inventory.
China Inv. Existing Chemical Substances:	Not in compliance with the inventory.
Korea Existing Chemicals Inv. (KECI):	Not in compliance with the inventory.
Canada NDSL Inventory:	Not in compliance with the inventory.
Philippines PICCS:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	On or in compliance with the inventory
Japan ISHL Listing:	Not in compliance with the inventory.
Japan Pharmacopoeia Listing:	Not in compliance with the inventory.
Mexico INSQ:	Not in compliance with the inventory.
Ontario Inventory:	Not in compliance with the inventory.
Taiwan Chemical Substance Inventory:	On or in compliance with the inventory

16. Other information, including date of preparation or last revision

Issue Date:	10/25/2019
Revision Information:	No data available.
Version #:	1.0
Further Information:	No data available.
Disclaimer:	This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

SAFETY DATA SHEET
Refrigerant Gas R134a

Version 2

Revision Date: 20.02.12



SAFETY DATA SHEET
REFRIGERANT R134A

SECTION 1: IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

1.1. Product Identifier

Product Name: REFRIGERANT R134a

Synonyms: 1,1,1,2 Tetrafluoroethane
HFC-134a
Norflurane

EC Number: 212-337-0

CAS Number: 811-97-2

REACH Registration Number: 01-2119459374-33-0002

If REACH registration numbers do not appear the substance is either exempt from registration, does not meet the minimum volume threshold for registration or the registration has not yet come due.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use: Refrigerant
Advised Against: No specific uses advised again have been identified, other than restrictions in the F-Gas Regulations.

1.3. Details of the supplier of the safety data sheet

Company name: National Refrigerants Ltd.

4 Watling Close
Sketchley Meadows Business Park
Hinckley LE10 3EZ
Tel: +44(0)1455 630790
Fax: +44(0) 1455 630791
Email: sds@nationalref.com

1.4. Emergency telephone number

Emergency Tel: +44(0) 1865 407333

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008



Warning

H280 Contains gas under pressure; may explode if heated
P410+P403 Protect from sunlight. Store in a well-ventilated place.

Directives 67/458/EEC or

This substance is not classified as dangerous according to Directive 67/548/EEC.

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1999/45/EC:

Most important adverse effect: Rapid evaporation of the liquid may cause frostbite.
Vapour is heavier than air and can cause suffocation.

2.2. Label elements

Label elements under CHIP:

Risk phrases R58: May cause long-term adverse effects in the environment
Safety phrases None

2.3. Other hazards

Directives 67/548/EEC or 1999/45/EC: Not a hazardous substance according to EC directives 67/548/EEC or 1999/45/EC.
Special labelling of certain mixtures: Contains fluorinated greenhouse gases covered by the Kyoto Protocol

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Substances

Hazardous Ingredients: 1,1,1,2-tetrafluoroethane 99.9%

3.2 Mixtures

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Skin contact: Rapid evaporation of liquid may cause frostbite. Take off all contaminated clothing immediately if not stuck to the skin. Flush area with lukewarm water. Do not use hot water. If frostbite has occurred call a physician.

Eye contact: Rapid evaporation of liquid in contact with the eye will damage it. Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Ingestion: This is not considered a potential route of exposure.

Inhalation: Remove from exposure, move to fresh air, and lie down. Keep patient warm and at rest. Artificial respiration and/or oxygen may be necessary. Consult a physician.

4.2. Most important symptoms and effects, both acute and delayed

Skin contact: Low exposure to liquid will cause redness and pain. High exposure to liquid will cause frostbite, blisters and severe pain.

Eye contact: Exposure to liquid will cause severe pain and cornea damage.

Ingestion: Not a route of exposure.

Inhalation: High vapour concentrations cause severe headache, dizziness and unconsciousness.

Delayed/immediate effects: May cause cardiac arrhythmia.

4.3. Indication of any immediate medical attention and special treatment needed

Immediate/special treatment: Burns pack should be available on the premises.

SECTION 5: FIRE-FIGHTING MEASURES

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5.1. Extinguishing media

Extinguishing media:

This product is not flammable. (ASHRAE 34) All extinguishing agents are suitable. Use measures that are appropriate to local and surrounding environment. Cool cylinders/tanks with water spray.

5.2. Special hazards arising from the substance or mixture

Special hazards arising from the mixture

Pressure build-up in cylinders/tanks.
Hazardous thermal decomposition products: carbon oxides, hydrogen fluoride, carbonyl fluoride.

5.3. Advice for fire-fighters

Advice for fire-fighters:

In the event of fire wear self-contained breathing apparatus.
Wear neoprene gloves during cleaning work after a fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions:

Evacuate personnel to safe areas.
Ventilate the area.

6.2. Environmental precautions

Environmental precautions:

Should not be released into the atmosphere.

6.3. Methods and material for containment and cleaning up

Clean-up procedures:

Material evaporates.

6.4. Reference to other sections

Reference to other sections:

For handling and protection measures refer to Section 7 of SDS. Refer to Section 8 of SDS.
For disposal methods refer to Section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Handling requirements:

Advice on handling:
Avoid breathing vapours or mist.
Avoid liquid contact with skin and clothing.
Provide sufficient air exchange and/or exhaust in work rooms.
Advice on protection against fire and explosion:
No special measures against fire required.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions:

Keep valves tightly closed.
Store in cool, dry well ventilated place.
Temperature not to exceed 45°C.

Suitable packaging:

Store in original cylinder only.
Protect from contamination.

7.3. Specific end use(s)

Specific end use(s)

No data available.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

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Hazardous ingredients:

1,1,1,2-TETRAFLUOROETHANE (HFC134a)

Workplace exposure limits

State	8 hour TWA	15 min. STEL
UK	1000 ppm (4240 mg/m ³)	-

8.2. Derived No Effect Level (DNEL)

- 1,1,1,2-Tetrafluoroethane:**
- | |
|---|
| Type of Application (Use): Workers |
| Exposure Routes: Inhalation |
| Health Effects: Chronic effects, Systemic toxicity. |
| Value: 2476 mg/m ³ |
| Type of Application (Use): Consumers |
| Exposure Routes: Inhalation |
| Health Effects: Chronic effects, Systemic toxicity. |
| Value: 2476 mg/m ³ |

8.3 Predicted No Effect Concentration

- 1,1,1,2-tetrafluoroethane:**
- | |
|------------------------------------|
| Value: 0.1 mg/l |
| Compartment: Fresh water. |
| Value: 0.01 mg/l |
| Compartment: Marine water. |
| Value: 1 mg/l |
| Compartment: Water |
| Remarks: Intermittent use/release. |
| Value: 0.75 mg/l |
| Compartment: Fresh water sediment. |
| Value: 73 mg/l |
| Compartment: Water |
| Remarks: Sewage treatment plants. |

8.4. Exposure Controls

- Engineering measures:** Ensure adequate ventilation, especially in confined areas.
- Respiratory protection:** For rescue and maintenance work in storage tanks use self-contained breathing apparatus. Vapours are heavier than air and can cause suffocation by reducing oxygen available for breathing.
- Hand protection:** Heat insulating gloves
- Eye protection:** Safety glasses with side shields. Wear a face shield in addition where the possibility exists for face contact due to splashing, spraying or airborne contact with this material.
- Skin protection:** Wear clothing that covers legs and arms.
- Environmental:** Gas escapes to be kept to the minimum by engineering processes and operating methods.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

- State:** Liquefied gas under pressure.
- Colour:** Clear colourless liquid and vapour.
- Odour:** Slight, ether like.
- Molecular weight:** 102.02 g/mol
- Boiling Point/range:** -26.2°C

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Flash Point:	Non-flammable
Ignition Temperature:	n/a Non flammable
Upper explosive limit/upper flammability limit:	n/a Non flammable
Vapour pressure:	4.909 Bar (4909 hPa) at 21°C
Liquid Density:	1200 kg/m ³ at 25°C
Vapour Density:	5.368 kg/m ³ at 21°C
Water solubility:	1.5 g/l
Vapour Density (Air = 1)	3.5

SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity: Stable under recommended storage and transport conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under recommended storage and transport conditions.
May react with aluminium.

10.4. Conditions to avoid

Conditions to avoid: Heat, hot surfaces, flames.

10.5. Incompatible material

Materials to avoid: Alkali metals, alkaline earth metals, powdered metals, powdered metal salts.

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition yields toxic products which can be corrosive in the presence of moisture.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological effects

Acute Oral Toxicity: 1,1,2-Tetrafluoroethane
Not Applicable.

Acute inhalation toxicity: 1,1,1,2-Tetrafluoroethane
LC₅₀/rat: 567000 ppm
/dog: Cardiac sensitization.

Acute Dermal toxicity: 1,1,1,2-Tetrafluoroethane
Not Applicable

Skin Irritation: 1,1,1,2-Tetrafluoroethane
Rabbit
Classification: Not classified as irritant.
Result: Slight irritation.

Eye Irritation: 1,1,1,2-Tetrafluoroethane
Rabbit
Classification: Not classified as an irritant.
Result: Slight irritation
Not expected to cause eye irritation based on expert review of the properties of the substance.

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Human
Classification: Not classified as irritant.
Result: No eye irritation.

Sensitization: 1,1,1,2-Tetrafluoroethane
Guinea pig
Classification: Not a skin sensitized.
Result: Did not cause sensitization on laboratory animals.
Not expected to cause sensitization based on expert review of the properties of the substance.

Did not cause sensitization on laboratory animals. There are on reports of human respiratory sensitization.

Repeated Dose Toxicity: 1,1,1,2-Tetrafluoroethane
Inhalation rat
No toxicologically significant effects were found.

Mutagenicity Assessment 1,1,1,2-Tetrafluoroethane
Animal testing did not show any mutagenic effects, Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity Assessment: 1,1,1,2-Tetrafluoroethane
Not classified as a human carcinogen.

Toxicity to reproduction Assessment: 1,1,1,2-Tetrafluoroethane
No toxicity to reproduction.

Human Experience: Excessive exposure may affect human health as follows:

Inhalation
Severe shortness of breath, narcosis, irregular cardiac activity.

Other information: May cause cardiac arrhythmia. Rapid evaporation of the liquid may cause frostbite. Inhalation of decomposition products in high concentration may cause shortness of breath (lung oedema).

SECTION 12. ECOLOGICAL INFORMATION

Where sections are blank no data is available

12.1. Toxicity

Toxicity to fish: 1,1,1,2-Tetrafluoroethane
LC₅₀/96 h/Oncorhynchus mykiss (rainbow trout): 450 mg/l

Toxicity to Aquatic plants: 1,1,1,2-Tetrafluoroethane
EC₅₀/72 h/Algae: >118 mg/l
Information given is based on data obtained from similar substances.

Acute Toxicity to aquatic Invertebrates: 1,1,1,2-Tetrafluoroethane
EC₅₀/48 h/Daphnia magna (water flea): 980 mg/l

Ecotoxic values: When discharged may contribute to the greenhouse effect.

12.2. Persistence and degradability

Persistance and Degradability: Biodegradability
/28 d
Biodegradation: 3%
Method: Closed Bottle test
Not readily biodegradable.

12.3. Bio accumulative potential

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Bio-accumulative potential: No data available.

12.4. Mobility in soil

Mobility: No data available.

12.5. Results of PBT and vPvB assessment

PBT & vPvB identification: This substance is not considered to be persistent, bio accumulating nor toxic (PBT).
This substance is not considered to be very persistent nor very bio accumulating (vPvB).

12.6. Other adverse effects

Other adverse effects:

Global Warming Potential (GWP) (CO₂ = 1) 1370

Ozone Depletion Potential (ODP) (R11 = 1) 0

SECTION 13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Disposal operations: Do not allow product to be released into the environment.

Recovery Operations: Consult the manufacturer or supplier for information regarding recovery and recycling of the product. If recovery is not possible, incinerate at a licensed installation.

Disposal of packaging: De-gas and return cylinders to suppliers.

N.B. The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

SECTION 14. TRANSPORT INFORMATION

14.1. ADR

Proper Shipping Name: Refrigerant R134a or 1,1,1,2-Tetrafluoroethane

UN Number: 3159

Class: 2

Classification Code: 2A

Labelling No.: 2.2

HS Number: 20

Tunnel Code: (C/E)

14.2. IATA_C

Proper Shipping Name: Refrigerant R134a or 1,1,1,2-Tetrafluoroethane

UN Number: 3159

Labelling No.: 2.2

14.3. IMDG

Proper Shipping Name: Refrigerant R134a or 1,1,1,2-Tetrafluoroethane

UN Number: 3159

Class: 2.2

Labelling Number: 2.2

SECTION 15. REGULATORY INFORMATION

15.1. Safety, health and environment regulations/legislation specific for the substance or mixture

Special labelling of certain mixtures: Contains fluorinated greenhouse gases covered by the Kyoto Protocol.

15.2. Chemical Safety Assessment

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Chemical safety assessment: A chemical safety assessment has been carried out by the supplier of this mixture.

16. OTHER INFORMATION

Other information: This safety sheet is prepared in accordance with Commission Regulation (EU) No. 453/2010.
* Indicates text in SDS which has changed since the last revision.

Legal disclaimer: National Refrigerants Ltd. believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY, OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be valid where such product is used in combination with any other methods of use of the product and of the information referred to herein are beyond the control of National Refrigerants Ltd. National Refrigerants Ltd. expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information.

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GENERAL SAFETY & HANDLING DATA

1. GENERAL

Only trained persons should handle compressed gases. Observe all regulations and local requirements regarding the storage of Cylinders.
Do not remove or deface labels provided by the supplier for the identification of the Cylinder contents.
Ascertain the identity of the gas before using it.
Know and understand the properties and hazards associated with each gas before using it.
When doubt exists as to the correct handling procedure for a particular gas contact the supplier.

HANDLING AND USE

Wear stout gloves.
Never lift a Cylinder by the cap or guard unless the supplier states it is designed for that purpose.
Use trolley or other suitable device or technique for transporting heavy Cylinders, even for a short distance.
Where necessary wear suitable eye and face protection.
The choice between safety glasses, chemical goggles, or full face shield will depend on the pressure and nature of the gas being used.

Where necessary for toxic gases see that self-contained positive pressure breathing apparatus or full face airline respirator is available in the vicinity of the working area.
Employ suitable pressure regulating device on all Cylinders when gas is being emitted to systems with lower pressure rating than that of the Cylinder.
Ascertain that all electrical systems in the area are suitable for service with each gas.

Never use direct flame or electrical heating devices to raise the pressure of a Cylinder, Cylinders should not be subjected to temperatures above 45°C.
Never re-compress a gas mixture without consulting the supplier. Never attempt to transfer gases from one Cylinder to another.
Do not use Cylinders as rollers or supports, or for any other purpose other than to contain the gas as supplied.
Never permit oil, grease or other readily combustible substances to come into contact with valves of Cylinders containing oxygen or other oxidants.
Keep Cylinder valves clean and free from contaminants particularly oil and water.

Do not subject Cylinders to mechanical shocks which may cause damage to their valves or safety devices.

Never attempt to repair or modify Cylinder valves or safety relief devices. Damaged valves should be reported immediately to the supplier.
Close the Cylinder valve whenever gas is not required even if the Cylinder is still connected to the equipment.

2. STORAGE

Cylinders should be stored in a well-ventilated area. Some gases will require a purpose built area.
Store Cylinders in a location free from fire risk and away from sources of heat and ignition. Designate as a no smoking area.

Gas Cylinders should be segregated in the storage according to the various categories.

The storage area should be kept clear and access should be restricted to authorized persons only, the area should be clearly marked as a storage area and appropriate hazard warning signs displayed (Flammable, Toxic etc.).

The amount of flammable or toxic gases should be kept to a minimum.
Flammable gases should be stored away from other combustible materials.

Cylinders held in storage should be periodically checked for general condition and leakage.

Cylinders in storage should be properly secured to prevent toppling or rolling.
Vertical storage is recommended where the Cylinder is designed for this.
Cylinder valves should be tightly closed and, where appropriate, valves should be capped or plugged.
Protect Cylinders stored in the open against rusting and extremes of weather.
Cylinders should not be stored in conditions likely to encourage corrosion.
Store full and empty Cylinders separately and arrange full Cylinders so that the oldest stock is used first.

FOR FURTHER INFORMATION CONTACT YOUR NEAREST DISTRIBUTION CENTRE



Safety Data Sheet

SECTION 1 CHEMICAL IDENTIFIER AND COMPANY IDENTIFICATION

Chevron and Texaco Unleaded Gasolines (All Grades)

Recommended Use of the Chemical and Restrictions on Use: Fuel

Synonyms: Automotive; Calco Mid-Grade Unleaded Gasoline; Calco Premium Gasoline; Calco Regular Unleaded Gasoline; CHEVRON and TEXACO MID-GRADE UNLEADED GASOLINES; CHEVRON and TEXACO PREMIUM UNLEADED GASOLINES; CHEVRON and TEXACO REGULAR UNLEADED GASOLINES; Chevron Mid-Grade Unleaded Gasoline; Chevron Plus Unleaded Gasoline; Chevron Premium Unleaded Gasoline; Chevron Regular Unleaded Gasoline; Chevron Supreme Plus Unleaded Gasoline; Chevron Supreme Unleaded Gasoline; Chevron UL/CQ Gasoline; GASOLINE (GENERIC); Gasolines; Texaco Power Plus Gasoline; Texaco Power Premium Unleaded Gasoline; Texaco Unleaded Gasoline; UNLEADED GASOLINE FOR EXPORT

Company Identification

Chevron Products Company
5001 Executive Parkway, Suite 200
San Ramon, CA 94583
United States of America

Transportation Emergency Response

CHEMTREC: (800) 424-9300 or (703) 527-3887

Health Emergency

Chevron Emergency & Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

Product Information

Product Information: (800) 582-3835
SDS Requests: lubemsds@chevron.com

SPECIAL NOTES: This SDS applies to: all motor gasoline.

SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION:

- Flammable liquid: Category 1.
- Aspiration toxicant: Category 1.
- Carcinogen: Category 1B.
- Eye irritation: Category 2A.
- Germ Cell Mutagen: Category 1B.
- Reproductive toxicant (developmental): Category 2.
- Skin irritation: Category 2.
- Target organ toxicant (central nervous system): Category 3.
- Target organ toxicant (repeated exposure): Category 2.
- Acute aquatic toxicant: Category 2.
- Chronic aquatic toxicant: Category 2.



Signal Word: Danger

Physical Hazards:

- Extremely flammable liquid and vapour (H224).

Health Hazards:

- May be fatal if swallowed and enters airways (H304).
- Causes skin irritation (H315).
- Causes serious eye irritation (H319).
- May cause drowsiness or dizziness (H336).
- May cause genetic defects (H340).
- May cause cancer (H350).
- Suspected of damaging the unborn child (H361D).
- May cause damage to organs (Blood/Blood Forming Organs) through prolonged or repeated exposure (H373).

Environmental Hazards:

- Toxic to aquatic life with long lasting effects (H411).

PRECAUTIONARY STATEMENTS:

General:

- Keep out of reach of children (P102).
- Read label before use (P103).

Prevention:

- Obtain special instructions before use (P201).
- Do not handle until all safety precautions have been read and understood (P202).
- Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking (P210).
- Keep container tightly closed (P233).
- Keep cool (P235).
- Ground and bond container and receiving equipment (P240).
- Use explosion-proof electrical/ventilating/lighting/equipment (P241).
- Use non-sparking tools (P242).
- Take action to prevent static discharge (P243).
- Do not breathe dust/fume/gas/mist/vapours/spray (P260).
- Wash thoroughly after handling (P264).
- Use only outdoors or in a well-ventilated area (P271).
- Avoid release to the environment (P273).
- Wear protective gloves/protective clothing/eye protection/face protection (P280).

Response:

- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician (P301+P310).
- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower (P303+P361+P353).
- IF INHALED: Remove person to fresh air and keep comfortable for breathing (P304+P340).
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing (P305+P351+P338).
- IF exposed or concerned: Get medical advice/attention (P308+P313).
- Specific treatment (see Notes to Physician on this label) (P321).
- Do NOT induce vomiting (P331).
- If skin irritation occurs: Get medical advice/attention (P332+P313).

- If eye irritation persists: Get medical advice/attention (P337+P313).
- Wash contaminated clothing before reuse (P363).
- In case of fire: Use media specified in the SDS to extinguish (P370+P378).
- Collect spillage (P391).

Storage:

- Store in a well-ventilated place. Keep container tightly closed (P403+P233).
- Store locked up (P405).

Disposal:

- Dispose of contents/container in accordance with applicable local/regional/national/international regulations (P501).

SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

This material is a mixture.

COMPONENTS	CAS NUMBER	AMOUNT
Gasoline	86290-81-5	100 %volume
Toluene	108-88-3	1 - 35 %volume
Pentane, 2,2,4-trimethyl-	540-84-1	10 - 15 %volume
Xylene	1330-20-7	1 - 15 %volume
Trimethylbenzene (3 isomers: 1,2,3-; 1,2,4-; 1,3,5-isomer)	25551-13-7	5 - 10 %volume
Pentane isomers (pentanes)	Mixture	1 - 13 %volume
Butane	106-97-8	1 - 12 %volume
Ethanol	64-17-5	0 - 10 %volume
Hexane	110-54-3	1 - 5 %volume
Benzene	71-43-2	0.1 - 5 %volume
Heptane	142-82-5	1 - 4 %volume
Cyclohexane	110-82-7	1 - 3 %volume
Ethylbenzene	100-41-4	0.1 - 3 %volume
Methylcyclohexane	108-87-2	1 - 2 %volume
Naphthalene	91-20-3	0.1 - 2 %volume

Motor gasoline is considered a mixture by EPA under the Toxic Substances Control Act (TSCA). The refinery streams used to blend motor gasoline are all on the TSCA Chemical Substances Inventory. The appropriate CAS number for refinery blended motor gasoline is 86290-81-5. The product specifications of motor gasoline sold in your area will depend on applicable Federal and State regulations.

SECTION 4 FIRST AID MEASURES

Eye: Flush eyes with water immediately while holding the eyelids open. Remove contact lenses, if worn, after initial flushing, and continue flushing for at least 15 minutes. Get immediate medical attention.

Skin: Wash skin with water immediately and remove contaminated clothing and shoes. Get medical attention if any symptoms develop. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

Ingestion: If swallowed, get immediate medical attention. Do not induce vomiting. Never give anything by mouth to an unconscious person.

Inhalation: Move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if breathing difficulties continue or if any other symptoms develop.

Note to Physicians: Ingestion of this product or subsequent vomiting may result in aspiration of light hydrocarbon liquid, which may cause pneumonitis.

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Dry Chemical, CO₂, Aqueous Film Forming Foam (AFFF) or alcohol resistant foam.

Unusual Fire Hazards: See Section 7 for proper handling and storage.

UNSUITABLE EXTINGUISHING MEDIA: No data available

PROTECTION OF FIRE FIGHTERS:

Fire Fighting Instructions: For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures:

Eliminate all sources of ignition in the vicinity of the spill or released vapor. If this material is released into the work area, evacuate the area immediately. Monitor area with combustible gas indicator.

Environmental Precautions:

Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater.

Methods and Material For Containment and Cleaning Up:

Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

Reporting:

Report spills to local authorities as appropriate or required.

SECTION 7 HANDLING AND STORAGE PRECAUTIONS

General Handling Information: Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

Precautionary Measures: This product presents an extreme fire hazard. Liquid very quickly evaporates, even at low temperatures, and forms vapor (fumes) which can catch fire and burn with explosive violence. Invisible vapor spreads easily and can be set on fire by many sources such as pilot lights, welding equipment, and electrical motors and switches. Never siphon gasoline by mouth.

Do not store in open or unlabeled containers. READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL. Use only as a motor fuel. Do not use for cleaning, pressure appliance fuel, or any other such use. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Do not breathe vapor or fumes. Wash thoroughly after handling. Keep out of the reach of children.

Static Hazard: Improper filling of portable gasoline containers creates danger of fire. Only dispense gasoline into approved and properly labeled gasoline containers. Always place portable containers on the ground. Be sure pump nozzle is in contact with the container while filling. Do not use a nozzle's lock-open device. Do not fill portable containers that are inside a vehicle or truck/trailer bed.

Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

Container Warnings: Container is not designed to contain pressure. Do not use pressure to empty

container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

General Storage Information: DO NOT USE OR STORE near heat, sparks, flames, or hot surfaces . USE AND STORE ONLY IN WELL VENTILATED AREA. Keep container closed when not in use.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the workplace when designing engineering controls and selecting personal protective equipment (PPE). If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, refer to PPE information below.

Factors that affect PPE include, but are not limited to: properties of the chemical, other chemicals which may contact the same PPE, physical requirements (fit & sizing, cut/puncture protection, dexterity, thermal protection, etc.), and potential allergic reactions to the PPE material. It is the responsibility of the user to read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances. Refer to appropriate CEN standards.

ENGINEERING CONTROLS:

Use general ventilation, local exhaust ventilation, or a combination of both.

PERSONAL PROTECTIVE EQUIPMENT

Eye/Face Protection: Wear protective equipment to prevent eye contact. Selection of protective equipment may include safety glasses, chemical goggles, face shields, or a combination depending on the work operations conducted.

Skin Protection: Wear chemical personal protective equipment (PPE) to prevent skin contact. Selection of chemical protective clothing should be performed by an Occupational Hygienist or Safety Professional and be based upon applicable standards (ASTM F739 or EN 374). Using chemical PPE depends upon operations conducted and may include chemical gloves, boots, chemical apron, chemical suit, and complete facial protection. Refer to PPE manufacturers to obtain breakthrough time information to determine how long PPE can be used before it needs to be replaced. Unless specific glove manufacturer data indicates otherwise, the below table is based upon available industry data to assist in the glove selection process and is intended to be used as reference only.

Chemical Glove Material	Thickness (mm)	Typical Breakthrough Time (minutes)
Butyl	0.7	7
Neoprene	0.61	7
Nitrile	0.8	60
Nitrile	0.23	2
Polyvinyl Chloride (PVC)	1.1	2
Viton Butyl	0.3	120

Respiratory Protection: Determine if airborne concentrations are below the recommended occupational exposure limits for jurisdiction of use. If airborne concentrations are above the acceptable limits, wear an approved respirator that provides adequate protection from this material, such as: Air-Purifying Respirator for Organic Vapors. When used as a fuel, this material can produce carbon monoxide in the exhaust. Determine if airborne concentrations are below the occupational exposure limit for carbon

monoxide. If not, wear an approved positive-pressure air-supplying respirator. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

Occupational Exposure Limits:

Component	Country/ Agency	Form	TWA	STEL	Ceiling	Notation
Gasoline	ACGIH	Vapor	300 ppm	500 ppm	--	A3
Gasoline	ACGIH	--	300 ppm	500 ppm	--	--
Toluene	ACGIH	--	20 ppm	--	--	--
Toluene	JSOH	--	188 mg/m ³	--	--	Skin
Pentane, 2,2,4-trimethyl-	ACGIH	--	300 ppm	--	--	--
Pentane, 2,2,4-trimethyl-	JSOH	--	1400 mg/m ³	--	--	--
Xylene	ACGIH	--	20 ppm	--	--	--
Xylene	JSOH	--	217 mg/m ³	--	--	--
Trimethylbenzene (3 isomers: 1,2,3-; 1,2,4-; 1,3,5- isomer)	ACGIH	--	10 ppm	--	--	--
Butane	ACGIH	--	--	1000 ppm	--	--
Butane	JSOH	--	1200 mg/m ³	--	--	--
Ethanol	ACGIH	--	1000 ppm	1000 ppm	--	A4
Hexane	ACGIH	--	50 ppm	--	--	Skin
Hexane	JSOH	--	140 mg/m ³	--	--	Skin
Benzene	ACGIH	Vapor	0.50 ppm	2.50 ppm	--	--
Benzene	ACGIH	--	0.05 ppm	2.50 ppm	--	Skin
Benzene	CVX	Vapor	0.50 ppm	2.50 ppm	--	--
Heptane	ACGIH	--	400 ppm	500 ppm	--	--
Heptane	JSOH	--	820 mg/m ³	--	--	--
Cyclohexane	ACGIH	--	100 ppm	--	--	--
Cyclohexane	JSOH	--	520 mg/m ³	--	--	--
Ethylbenzene	ACGIH	Vapor	100 ppm	--	--	--
Ethylbenzene	ACGIH	--	20 ppm	--	--	--
Ethylbenzene	JSOH	--	87 mg/m ³	--	--	Skin
Methylcyclohexane	ACGIH	--	400 ppm	--	--	--
Methylcyclohexane	JSOH	--	1600 mg/m ³	--	--	--
Naphthalene	ACGIH	Vapor	10 ppm	15 ppm	--	A4 Skin
Naphthalene	ACGIH	--	10 ppm	--	--	Skin

Consult local authorities for appropriate values.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Attention: the data below are typical values and do not constitute a specification.

Color: Colorless to yellow

Physical State: Liquid

Odor: Petroleum odor

Odor Threshold: No data available

pH: Not Applicable

Vapor Pressure: 5 psi - 15.50 psi (Typical) @ 37.8 °C (100 °F)

Relative Vapor Density: 3 - 4 (Typical)

Particle Characteristics: No data available

Boiling Point: 27.2°C (81°F) - 52.8°C (127°F) (Typical)

Solubility: Negligible
Freezing Point: Not Applicable
Melting Point: Not Applicable
Specific Gravity: 0.70 g/ml - 0.80 g/ml @ 15.6°C (60.1°F) (Typical)
Density: No data available
Viscosity: <1 SUS @ 37.8°C (100°F)
Evaporation Rate: No data available
n-Octanol/Water Partition Coefficient: 2 - 7
Combustion Characteristics (Solids/Gases): No data available
Decomposition Temperature: No data available
Boiling Range: No data available

FLAMMABLE PROPERTIES:

Flashpoint: (Tagliabue Closed Cup ASTM D56) < -45 °C (< -49 °F)

Autoignition: > 280 °C (> 536 °F)

Flammability (solid, gas): Not Applicable

Flammability (Explosive) Limits (% by volume in air): Lower: 1.4 Upper: 7.6

SECTION 10 STABILITY AND REACTIVITY

Reactivity: May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Incompatibility With Other Materials: Not applicable

Hazardous Decomposition Products: None known (None expected)

Hazardous Polymerization: Hazardous polymerization will not occur.

SECTION 11 HAZARD INFORMATION

IMMEDIATE HEALTH EFFECTS

Eye: Contact with the eyes causes severe irritation. Symptoms may include pain, tearing, reddening, swelling and impaired vision.

Eye Irritation: This material causes serious eye irritation. The product has not been tested. The statement is based on evaluation of data for product components.

Skin: Contact with the skin causes irritation. Skin contact may cause drying or defatting of the skin. Symptoms may include pain, itching, discoloration, swelling, and blistering. Contact with the skin is not expected to cause an allergic skin response.

Acute Dermal Toxicity: LD50: >3.75 g/kg (rabbit).

Skin Irritation: For a 4-hour exposure, the Primary Irritation Index (PII) in rabbits is: 4.8/8.0.

Skin Sensitization: This material did not cause skin sensitization reactions in a Buehler guinea pig test.

Ingestion: Highly toxic; may be fatal if swallowed. Because of its low viscosity, this material can directly enter the lungs, if swallowed, or if subsequently vomited. Once in the lungs it is very difficult to remove and can cause severe injury or death. May be irritating to mouth, throat, and stomach. Symptoms may include pain, nausea, vomiting, and diarrhea.

Acute Oral Toxicity: LD50: >5 ml/kg (rat).

Inhalation: Excessive or prolonged breathing of this material may cause central nervous system effects. Central nervous system effects may include headache, dizziness, nausea, vomiting, weakness, loss of coordination, blurred vision, drowsiness, confusion, or disorientation. At extreme exposures, central nervous system effects may include respiratory depression, tremors or convulsions, loss of

consciousness, coma or death.

Acute Inhalation Toxicity: 4 hour(s) LD50: >20000 mg/m³ (rat).

Acute Toxicity Estimate: Not Determined

DELAYED OR OTHER HEALTH EFFECTS:

Reproductive Toxicity: Contains material that may cause harm to the unborn child if inhaled above the recommended exposure limit. This material is suspected of damaging the unborn child. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

Carcinogenicity: Prolonged or repeated exposure to this material may cause cancer. Gasoline has been classified as a Group 2B carcinogen (possibly carcinogenic to humans) by the International Agency for Research on Cancer (IARC).

Whole gasoline exhaust has been classified as a Group 2B carcinogen (possibly carcinogenic to humans) by the International Agency for Research on Cancer (IARC).

Contains benzene, which has been classified as a carcinogen by the National Toxicology Program (NTP) and a Group 1 carcinogen (carcinogenic to humans) by the International Agency for Research on Cancer (IARC).

Contains naphthalene, which has been classified as a Group 2B carcinogen (possibly carcinogenic to humans) by the International Agency for Research on Cancer (IARC). Contains ethylbenzene which has been classified as a Group 2B carcinogen (possibly carcinogenic to humans) by the International Agency for Research on Cancer (IARC).

This material may cause cancer. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

Germ Cell Mutagenicity: This material may cause genetic defects. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

Target Organs: Contains material that may cause damage to the following organ(s) following repeated inhalation at concentrations above the recommended exposure limit: Blood/Blood Forming Organs

Specific Target Organ Toxicity - Single Exposure: This material may cause drowsiness or dizziness. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

Specific Target Organ Toxicity - Repeated Exposure: This material may cause damage to organs through prolonged or repeated exposure. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

Aspiration Hazard: This material is considered an aspiration hazard based on the kinematic viscosity of the material.

ADDITIONAL TOXICOLOGY INFORMATION:

This product contains naphthalene.

GENERAL TOXICITY: Exposure to naphthalene has been reported to cause methemoglobinemia and/or hemolytic anemia, especially in humans deficient in the enzyme glucose-6-phosphate dehydrogenase. Laboratory animals given repeated oral doses of naphthalene have developed cataracts.

REPRODUCTIVE TOXICITY AND BIRTH DEFECTS: Naphthalene did not cause birth defects when administered orally to rabbits, rats, and mice during pregnancy, but slightly reduced litter size in mice at dose levels that were lethal to the pregnant females. Naphthalene has been reported to cross the human placenta. **GENETIC TOXICITY:** Naphthalene caused chromosome aberrations and sister chromatid exchanges in Chinese hamster ovary cells, but was not a mutagen in several other in-vitro tests.

CARCINOGENICITY: In a study conducted by the National Toxicology Program (NTP), mice exposed to 10 or 30 ppm of naphthalene by inhalation daily for two years had chronic inflammation of the nose and lungs and increased incidences of metaplasia in those tissues. The incidence of benign lung tumors (alveolar/bronchiolar adenomas) was significantly increased in the high-dose female group but not in the male groups. In another two-year inhalation study conducted by NTP, exposure of rats to 10, 30,

and 60 ppm naphthalene caused increases in the incidences of a variety of nonneoplastic lesions in the nose. Increases in nasal tumors were seen in both sexes, including olfactory neuroblastomas in females at 60 ppm and adenomas of the respiratory epithelium in males at all exposure levels. The relevance of these effects to humans has not been established. No carcinogenic effect was reported in a 2-year feeding study in rats receiving naphthalene at 41 mg/kg/day.

This product contains cyclohexane.

Cyclohexane primarily affects the central nervous systems of laboratory animals and humans. Acute or prolonged inhalation of cyclohexane at levels below the recommended exposure limits does not result in toxic effects while acute exposures to levels above these recommended limits can cause reversible central nervous system depression. Prolonged exposures of laboratory animals to high levels (up to low thousands of parts per million) have also caused reversible effects which included hyperactivity, diminished response to stimuli, and adaptive liver changes while very high levels (high thousands of parts per million) were fatal. No developmental effects were seen in rats or rabbits following exposures of up to 7000 ppm cyclohexane. No reproductive effects occurred in rats, although postnatal pup growth was reduced at 7000 ppm in a similar manner as observed in the parental animals. Cyclohexane has not been shown to be mutagenic in several in vitro and in vivo assays and has not produced tumors in several dermal application long-term bioassays. Based on these results and the lack of any mutagenic or genotoxic metabolites, cyclohexane is not expected to be mutagenic or genotoxic. Following dermal exposure, cyclohexane is rapidly absorbed, metabolized, and excreted.

This product contains butane.

An atmospheric concentration of 100,000 ppm (10%) butane is not noticeably irritating to the eyes, nose or respiratory tract, but will produce slight dizziness in a few minutes of exposure. No chronic systemic effect has been reported from occupational exposure.

This product contains benzene.

GENETIC TOXICITY/CANCER: Repeated or prolonged breathing of benzene vapor has been associated with the development of chromosomal damage in experimental animals and various blood diseases in humans ranging from aplastic anemia to leukemia (a form of cancer). All of these diseases can be fatal. In some individuals, benzene exposure can sensitize cardiac tissue to epinephrine which may precipitate fatal ventricular fibrillation.

REPRODUCTIVE/DEVELOPMENTAL TOXICITY: No birth defects have been shown to occur in pregnant laboratory animals exposed to doses not toxic to the mother. However, some evidence of fetal toxicity such as delayed physical development has been seen at such levels. The available information on the effects of benzene on human pregnancies is inadequate but it has been established that benzene can cross the human placenta.

OCCUPATIONAL: The OSHA Benzene Standard (29 CFR 1910.1028) contains detailed requirements for training, exposure monitoring, respiratory protection and medical surveillance triggered by the exposure level. Refer to the OSHA Standard before using this product.

This product contains n-hexane.

TARGET ORGAN TOXICITY: Prolonged or repeated ingestion, skin contact or breathing of vapors of n-hexane has been shown to cause peripheral neuropathy. Recovery ranges from no recovery to complete recovery depending upon the severity of the nerve damage. Exposure to 1000 ppm n-hexane for 18 hr/day for 61 days has been shown to cause testicular damage in rats. However, when rats were exposed to higher concentrations for shorter daily periods (10,000 ppm for 6 h/day, 5 days/wk for 13 weeks), no testicular lesions were seen.

CARCINOGENICITY: Chronic exposure to commercial hexane (52% n-hexane) at a concentration of 9000 ppm was not carcinogenic to rats or to male mice, but did result in an increased incidence of liver tumors in female mice. No carcinogenic effects were observed in female mice exposed to 900 or 3000 ppm hexane or in male mice. The relevance for humans of these hexane-induced mouse liver tumors is questionable.

GENETIC TOXICITY: n-Hexane caused chromosome aberrations in bone marrow of rats, but was

negative in the AMES and mouse lymphoma tests.

This product contains ethanol (ethyl alcohol).

Chronic ingestion of ethanol can damage the liver, nervous system and heart. Chronic heavy consumption of alcoholic beverages has been associated with an increased risk of cancer. Ingestion of ethanol during pregnancy can cause human birth defects such as fetal alcohol syndrome.

Gasolines are highly volatile and can produce significant concentrations of vapor at ambient temperatures. Gasoline vapor is heavier than air and at high concentrations may accumulate in confined spaces to present both safety and health hazards. When vapor exposures are low, or short duration and infrequent, such as during refueling and tanker loading/unloading, neither total hydrocarbon nor components such as benzene are likely to result in any adverse health effects. In situations such as accidents or spills where exposure to gasoline vapor is potentially high, attention should be paid to potential toxic effects of specific components. Information about specific components in gasoline can be found in Sections 2/3, 8 and 15 of this SDS. More detailed information on the health hazards of specific gasoline components can be obtained calling the Chevron Emergency Information Center (see Section 1 for phone numbers).

Pathological misuse of solvents and gasoline, involving repeated and prolonged exposure to high concentrations of vapor is a significant exposure on which there are many reports in the medical literature. As with other solvents, persistent abuse involving repeated and prolonged exposures to high concentrations of vapor has been reported to result in central nervous system damage and eventually, death. In a study in which ten human volunteers were exposed for 30 minutes to approximately 200, 500 or 1000 ppm concentrations of gasoline vapor, irritation of the eyes was the only significant effect observed, based on both subjective and objective assessments.

Lifetime inhalation of wholly vaporized unleaded gasoline at 2056 ppm has caused increased liver tumors in female mice and kidney cancer in male rats. In their 1988 review of carcinogenic risk from gasoline, The International Agency for Research on Cancer (IARC) noted that, because published epidemiology studies did not include any exposure data, only occupations where gasoline exposure may have occurred were reviewed. These included gasoline service station attendants and automobile mechanics. IARC also noted that there was no opportunity to separate effects of combustion products from those of gasoline itself. Although IARC allocated gasoline a final overall classification of Group 2B, i.e. possibly carcinogenic to humans, this was based on limited evidence in experimental animals plus supporting evidence including the presence in gasoline of benzene. The actual evidence for carcinogenicity in humans was considered inadequate.

MUTAGENICITY: Gasoline was not mutagenic, with or without activation, in the Ames assay (*Salmonella typhimurium*), *Saccharomyces cerevisiae*, or mouse lymphoma assays. In addition, point mutations were not induced in human lymphocytes. Gasoline was not mutagenic when tested in the mouse dominant lethal assay. Administration of gasoline to rats did not cause chromosomal aberrations in their bone marrow cells. **EPIDEMIOLOGY:** To explore the health effects of workers potentially exposed to gasoline vapors in the marketing and distribution sectors of the petroleum industry, the American Petroleum Institute sponsored a cohort mortality study (Publication 4555), a nested case-control study (Publication 4551), and an exposure assessment study (Publication 4552). Histories of exposure to gasoline were reconstructed for cohort of more than 18,000 employees from four companies for the time period between 1946 and 1985. The results of the cohort mortality study indicated that there was no increased mortality from either kidney cancer or leukemia among marketing and marine distribution employees who were exposed to gasoline in the petroleum industry, when compared to the general population. More importantly, based on internal comparisons, there was no association between mortality from kidney cancer or leukemia and various indices of gasoline exposure. In particular, neither duration of employment, duration of exposure, age at first exposure, year of first exposure, job category, cumulative exposure, frequency of peak exposure, nor average intensity of exposure had any effect on kidney cancer or leukemia mortality. The results of the nested case-control study confirmed the findings of the original cohort study. That is, exposure to gasoline at the levels experienced by this cohort of distribution workers is not a significant risk factor for leukemia (all cell types), acute myeloid leukemia, kidney cancer or multiple myeloma.

This product contains ethylbenzene.

BIRTH DEFECTS AND REPRODUCTION: Ethylbenzene is not expected to cause birth defects or other developmental effects based on well-conducted studies in rabbits and rats sponsored by NIOSH. Other studies in rats and mice which reported urinary tract malformations have many deficiencies and have limited usefulness in evaluating human risk. Reproductive effects are not expected based on a NIOSH study of fertility, and lack of effects observed for sperm counts and motility, estrous cycle and pathology of reproductive organs following repeated exposures. **HEARING:** Statistically significant losses in outer hair cells (OHCs) were observed in rats exposed to ≥ 200 ppm ethylbenzene, 6 hours/day, 6 days/week for 13 weeks, after an 8-week recovery period. Following longer exposure, inner hair cells losses were also observed in rats exposed to ≥ 600 ppm ethylbenzene, but only occasionally in rats exposed to 400 ppm. The Lowest Observed Adverse Effect Level in rats (LOAEL) was 200 ppm for losses of OHCs. Guinea pigs exposed to ethylbenzene at 2,500 ppm, 6 hours/day for 5 days did not show auditory deficits or losses in OHCs. The concentration of ethylbenzene used in the JP-8 study was approximately 10 ppm. **GENETIC TOXICITY:** Ethylbenzene tested negative in the bacterial mutation test, Chinese Hamster Ovary (CHO) cell in vitro assay, sister chromatid exchange assay and an unscheduled DNA synthesis assay. Conflicting results have been reported for the mouse lymphoma cell assay. Increased micronuclei were reported in an in vitro Syrian hamster embryo cell assay; however, two in vivo micronuclei studies in mice were negative. In Syrian hamster embryo cells in vitro, cell transformation was observed at 7 days of incubation but not at 24 hours. Based on these results, ethylbenzene is not expected to be mutagenic or clastogenic. **CARCINOGENICITY:** In studies conducted by the National Toxicology Program, rats and mice were exposed to ethylbenzene at 25, 250 and 750 ppm for six hours per day, five days per week for 103 weeks. In rats exposed to 750 ppm, the incidence of kidney tubule hyperplasia and tumors was increased. Testicular tumors develop spontaneously in nearly all rats if allowed to complete their natural life span; in this study, the development of these tumors appeared to be enhanced in male rats exposed to 750 ppm. In mice, the incidences of lung tumors in males and liver tumors in females exposed to 750 ppm were increased as compared to control mice but were within the range of incidences observed historically in control mice. Other liver effects were observed in male mice exposed to 250 and 750 ppm. The incidences of hyperplasia were increased in the pituitary gland in female mice at 250 and 750 ppm and in the thyroid in male and female mice at 750 ppm.

This product contains toluene.

GENERAL TOXICITY: The primary effects of exposure to toluene in animals and humans are on the central nervous system. Solvent abusers, who typically inhale high concentrations (thousands of ppm) for brief periods of time, in addition to experiencing respiratory tract irritation, often suffer permanent central nervous system effects that include tremors, staggered gait, impaired speech, hearing and vision loss, and changes in brain tissue. Death in some solvent abusers has been attributed to cardiac arrhythmias, which appear to have been triggered by epinephrine acting on solvent sensitized cardiac tissue. Although liver and kidney effects have been seen in some solvent abusers, results of animal testing with toluene do not support these as primary target organs.

HEARING: Humans who were occupationally exposed to concentrations of toluene as low as 100 ppm for long periods of time have experienced hearing deficits. Hearing loss, as demonstrated using behavioral and electrophysiological testing as well as by observation of structural damage to cochlear hair cells, occurred in experimental animals exposed to toluene. It also appears that toluene exposure and noise may interact to produce hearing deficits.

COLOR VISION: In a single study of workers exposed to toluene at levels under 50 ppm, small decreases in the ability to discriminate colors in the blue-yellow range have been reported for female workers. This effect, which should be investigated further, is very subtle and would not likely have been noticed by the people tested.

REPRODUCTIVE/DEVELOPMENTAL TOXICITY: Toluene may also cause mental and/or growth retardation in the children of female solvent abusers who directly inhale toluene (usually at thousands of ppm) when they are pregnant. Toluene caused growth retardation in rats and rabbits when administered at doses that were toxic to the mothers. In rats, concentrations of up to 5000 ppm did not cause birth defects. No effects were observed in the offspring at doses that did not intoxicate the pregnant animals. The exposure level at which no effects were seen (No Observed Effect Level, NOEL) is 750 ppm in the

rat and 500 ppm in the rabbit.

This product contains xylene.

ACUTE TOXICITY: The primary effects of exposure to xylene in animals and humans are on the central nervous system. In addition, in some individuals, xylene exposure can sensitize cardiac tissue to epinephrine which may precipitate fatal ventricular fibrillation. **DEVELOPMENTAL TOXICITY:** Xylene has been reported to cause developmental toxicity in rats and mice exposed by inhalation during pregnancy. The effects noted consisted of delayed development and minor skeletal variations. In addition, when pregnant mice were exposed by ingestion to a level that killed nearly one-third of the test group, lethality (resorptions) and malformations (primarily cleft palate) occurred. Since xylene can cross the placenta, it may be appropriate to prevent exposure during pregnancy. **GENETIC TOXICITY/CARCINOGENICITY:** Xylene was not genotoxic in several mutagenicity testing assays including the Ames test. In a cancer study sponsored by the National Toxicology Program (NTP), technical grade xylene gave no evidence of carcinogenicity in rats or mice dosed daily for two years. **HEARING:** Mixed xylenes have been shown to cause measurable hearing loss in rats exposed to 800 ppm in the air for 14 hours per day for six weeks. Exposure to 1450 ppm xylene for 8 hours caused hearing loss while exposure to 1700 ppm for 4 hours did not. Although no information is available for lower concentrations, other chemicals that cause hearing loss in rats at relatively high concentrations do not cause hearing loss in rats at low concentrations. Worker exposure to xylenes at the permissible exposure limit (100 ppm, time-weighted average) is not expected to cause hearing loss.

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICITY

Gasoline studies have been conducted in the laboratory under a variety of test conditions with a range of fish and invertebrate species. An even more extensive database is available on the aquatic toxicity of individual aromatic constituents. The majority of published studies do not identify the type of gasoline evaluated, or even provide distinguishing characteristics such as aromatic content or presence of lead alkyls. As a result, comparison of results among studies using open and closed vessels, different ages and species of test animals and different gasoline types, is difficult.

The bulk of the available literature on gasoline relates to the environmental impact of monoaromatic (BTEX) and diaromatic (naphthalene, methylnaphthalenes) constituents. In general, non-oxygenated gasoline exhibits some short-term toxicity to freshwater and marine organisms, especially under closed vessel or flow-through exposure conditions in the laboratory. The components which are the most prominent in the water soluble fraction and cause aquatic toxicity, are also highly volatile and can be readily biodegraded by microorganisms.

This material is expected to be toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

48 hour(s) LC50: 3.0 mg/l (Daphnia magna)
96 hour(s) LC50: 1.8 mg/l (Mysidopsis bahia)
96 hour(s) LC50: 8.3 mg/l (Cyprinodon variegatus)
96 hour(s) LC50: 2.7 mg/l (Oncorhynchus mykiss)

MOBILITY IN SOIL

No data available.

PERSISTENCE AND DEGRADABILITY

This material is expected to be readily biodegradable. Following spillage, the more volatile components of gasoline will be rapidly lost, with concurrent dissolution of these and other constituents into the water. Factors such as local environmental conditions (temperature, wind, mixing or wave action, soil type, etc), photo-oxidation, biodegradation and adsorption onto suspended sediments, can contribute to the

weathering of spilled gasoline.

The aqueous solubility of non-oxygenated unleaded gasoline, based on analysis of benzene, toluene, ethylbenzene+xlenes and naphthalene, is reported to be 112 mg/l. Solubility data on individual gasoline constituents also available.

The product has not been tested. The statement has been derived from the properties of the individual components.

POTENTIAL TO BIOACCUMULATE

Bioconcentration Factor: No data available.
Octanol/Water Partition Coefficient: 2 - 7

ADVERSE EFFECTS FOR OZONE LAYER:

No data available.

SECTION 13 NOTES ON DISPOSAL

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by international, country, or local laws and regulations.

SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

UN Shipping Description: UN1203, GASOLINE, 3, II

IMO/IMDG Shipping Description: UN1203, GASOLINE, 3, II, FLASH POINT SEE SECTION 9, MARINE POLLUTANT (GASOLINE)

ICAO/IATA Shipping Description: UN1203, GASOLINE, 3, II

Domestic Regulatory Information

Land Regulatory Information: subject to the provisions of the Fire Service Act

Maritime Regulatory Information: subject to the provisions of the Ship Safety Act

Aviation Regulatory Information: subject to the provisions of the Civil Aeronautics Act

SECTION 15 REGULATORY INFORMATION

REGULATORY LISTS SEARCHED:

- 01-1=IARC Group 1
- 01-2A=IARC Group 2A
- 01-2B=IARC Group 2B
- 02-1=PRTR (Pollutant Release and Transfer Register) Class 1
- 02-2=PRTR (Pollutant Release and Transfer Register) Class 2
- 03-1=Industrial Safety and Health Law (Harmful Substances, etc., Prohibited for Manufacture)
- 03-2=Industrial Safety and Health Law (Harmful Substances Subject to Obtaining Permission for Manufacturing)
- 03-3=Industrial Safety and Health Law (Harmful Substances Whose Names, etc., are to Be Indicated)
- 03-4=Industrial Safety and Health Law (Notifiable Substances)
- 04-1=Poisonous and Deleterious Substances Control Law (Poisonous substance)
- 04-2=Poisonous and Deleterious Substances Control Law (Deleterious substance)

The following components of this material are found on the regulatory lists indicated.

Gasoline	01-2B
Toluene	02-1, 03-3, 03-4, 04-2
Pentane, 2,2,4-trimethyl-	02-2, 03-3
Xylene	02-1, 03-3, 03-4, 04-2
Trimethylbenzene (3 isomers: 1,2,3-; 1,2,4-; 1,3,5-isomer)	02-1, 03-3, 03-4
Butane	03-3, 03-4
Ethanol	01-1, 03-3, 03-4
Hexane	02-1, 03-3, 03-4
Benzene	01-1, 02-1, 03-1, 03-3, 03-4
Heptane	02-1, 03-3, 03-4
Cyclohexane	02-1, 03-3, 03-4
Ethylbenzene	01-2B, 02-1, 03-3, 03-4
Methylcyclohexane	03-3, 03-4
Naphthalene	01-1, 01-2B, 02-1, 03-3, 03-4

JAPANESE FIRE LAW: Group 4, Class 1 Petroleum

CHEMICAL INVENTORIES:

All components comply with the following chemical inventory requirements: AIIC (Australia), DSL (Canada), EINECS (European Union), KECL (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan).

SECTION 16 OTHER INFORMATION

REVISION STATEMENT: SECTION 08 - Engineering Control Measures information was modified.

SECTION 08 - General Considerations information was modified.

SECTION 08 - Occupational Exposure Limit Table information was modified.

SECTION 08 - Personal Protective Equipment List information was deleted.

SECTION 08 - Personal Protective Equipment information was added.

SECTION 08 - Skin Protection information was modified.

SECTION 15 - Regulatory Information information was modified.

Revision Date: 2023/03/01

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
CVX - Chevron	NFPA - National Fire Protection Association (USA)
	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	

Prepared according to JIS Z 7253:2019 / JIS Z 7252:2019 by Chevron Technical Center, 6001 Bollinger Canyon Road, San Ramon, CA 94583.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is

furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

Safety Data Sheet

Classified in accordance 29 CFR 1910.1200

1. Product Identification

Product Information:	1000000075
Product Identifier:	SPRAYWAY GLASS CLEANER
Recommended Use:	Cleaner
Manufacturer/Importer/Distributor Information:	PLZ CORP 2651 WARRENVILLE RD, STE 300 DOWNERS GROVE, IL 60515 US 800-332-9000
Emergency Telephone:	866-836-8855

2. Hazard(s) identification

Classification

Compressed Gas

Label elements

HAZARD PICTOGRAMS



SIGNAL WORD

Warning

GHS HAZARD STATEMENTS

H280 Contains gas under pressure; may explode if heated.

GHS PRECAUTIONARY STATEMENTS

Prevention

None

Response

None

Storage

P410+P403 Protect from sunlight. Store in a well-ventilated place.

Disposal

None

Other Information

None

3. Composition/Information on Ingredients

Mixtures

<u>Chemical Identity</u>	<u>CAS Number</u>	<u>Content in Percent (%)</u> *
Ethanol	64-17-5	2.5-10
2-Butoxyethanol	111-76-2	2.5-10
Propane	74-98-6	1.0-2.5
Butane	106-97-8	1.0-2.5

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition Comments: Other components are not hazardous or are below required disclosure limits.

The exact concentration has been withheld as a trade secret.

4. First-aid Measures

SKIN CONTACT: Wash skin thoroughly with soap and water. If skin irritation occurs: Get medical advice/attention.

EYE CONTACT: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.

INHALATION: Move to fresh air.

INGESTION: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

IMPORTANT SYMPTOMS: No data available

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED: Get medical attention if symptoms occur.

5. Fire-fighting Measures

EXTINGUISHING MEDIA: Use fire-extinguishing media appropriate for surrounding materials.

UNSUITABLE EXTINGUISHING MEDIA: Do not use water jet as an extinguisher, as this will spread the fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Pressurized container may explode when exposed to heat or flame.

SPECIAL FIREFIGHTING PROCEDURES: No data available

6. Accidental Release Measures

PERSONAL PRECAUTIONS : No data available

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANUP: Stop the flow of material, if this is without risk. Absorb with sand or other inert absorbent.

ENVIRONMENTAL PRECAUTIONS: Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer. Environmental manager must be informed of all major spillages.

7. Handling and Storage

HANDLING: Wear personal protective equipment.

SAFE HANDLING ADVICE: Observe good industrial hygiene practices.

STORAGE: No data available

NFPA 30B: Aerosol Level 1

8. Exposure Controls/Personal Protection

Ingredients with Occupational Exposure Limits

<u>Chemical Name</u>	<u>TLV-TWA</u>	<u>TLV-STEL</u>	<u>PEL-TWA</u>	<u>PEL-CEILING</u>
Ethanol	N.E.	1000 ppm	1000 ppm	N.E.

2-Butoxyethanol	20 ppm	N.E.	50 ppm	N.E.
Propane	N.E.	N.E.	1000 ppm	N.E.
Butane	N.E.	1000 ppm	N.E.	N.E.

Further Advice: MEL = Maximum Exposure Limit OES = Occupational Exposure Standard SUP = Supplier's Recommendation
Sk = Skin Sensitizer N.E. = Not Established

ENGINEERING CONTROLS: Provide adequate ventilation.

Personal Protection

EYE/FACE PROTECTION: Wear goggles/face shield.

SKIN PROTECTION: No data available

RESPIRATORY PROTECTION: Seek advice from local supervisor. In case of inadequate ventilation use suitable respirator.

HYGIENIC PRACTICES: General industrial hygiene practice.

9. Physical and Chemical Properties

Appearance:

Physical State:	Liquid
Form:	Spray Aerosol
Color:	Yellow
Odor:	Fresh
Odor Threshold:	No data available
pH:	No data available
Freeze Point, °C:	No data available
Boiling Point, °C:	78
Flash Point, °C:	-104
Flammability (solid, gas):	Non-flammable Aerosol
Evaporation Rate:	No data available
Combustibility:	Does not Support Combustion
Explosive Limits, %:	1.1 - 19.0
Vapor Pressure @20°C, PSI:	70 - 90
Vapor Density:	No data available
Relative Density:	0.979
Solubility in Water:	No data available
Partition Coefficient, n-octanol/water:	No data available
Auto-Ignition Temperature, °C:	No data available
Decomposition temperature, °C:	No data available
Kinematic Viscosity:	No data available

10. Stability and Reactivity

REACTIVITY: Not reactive under normal conditions of use.

STABILITY: Material is stable under normal conditions.

POSSIBILITY OF HAZARDOUS REACTIONS: No data available

CONDITIONS TO AVOID: Avoid heat or contamination

INCOMPATIBILITY: No data available

HAZARDOUS DECOMPOSITION PRODUCTS: No data available

11. Toxicological Information

Information on Likely Routes of Exposure

SKIN CONTACT EFFECTS: May cause irritation on prolonged or repeated contact.

EYE CONTACT EFFECTS: May cause slight irritation with tearing.

INHALATION EFFECTS: Inhalation of high concentrations of mists may cause irritation of the nose throat and upper respiratory tract.

INGESTION EFFECTS: Ingestion may cause irritation of the mucous membranes, esophagus and stomach.

Carcinogenicity: contains 1 component (Ethanol) present at a level greater or equal to 0.1% that have been identified as possible carcinogenic to humans by IARC (Group 2B).

The following values are calculated based on chapter 3.1 of the GHS document. The product itself has not been tested.

ATE ORAL 15,491 mg/kg

ATE DERMAL 30,157 mg/kg

ATE INHALATION 382 mg/kg

Acute Toxicity Values

The acute effects of this product have not been tested. Data on individual components are tabulated below

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
64-17-5	Ethanol	10,470 mg/kg	17,100 mg/kg	124.7 mg/l
111-76-2	2-Butoxyethanol	500 mg/kg	1100 mg/kg	11 mg/l
74-98-6	Propane	5,000 mg/kg	5,000 mg/kg	100 mg/l
106-97-8	Butane	5000 mg/kg	5000 mg/kg	658 mg/L Rat

N.I. = No Information

Skin Corrosion & Irritation:

Product: No data available

Serious Eye Damage & Irritation:

Product: No data available

Respiratory or Skin Sensitization:

Product: No data available

STOT-Single Exposure:

Product: No data available

STOT-Repeated Exposure:

Product: No data available

Aspiration Hazard:

Product: No data available

Carcinogenicity:

Product: No data available

Reproductive Toxicity:

Product: No data available

Germ Cell Mutagenicity:

Product: No data available

12. Ecological Information

ECOLOGICAL INFORMATION: No data available

PERSISTENCE: No data available

BIOACCUMULATE: No data available

MOBILITY IN SOIL: No data available

OTHER ECOLOGICAL: No data available

13. Disposal Information

DISPOSAL INFORMATION: Consult with your local, regional and federal agencies for information on proper disposal.

CONTAMINATED PACKAGING : Consult with your local, regional and federal agencies for information on proper disposal.

14. Transport Information

SPECIAL TRANSPORT PRECAUTIONS: No data available

DOT

UN Number:	UN1950
Proper Shipping Name:	AEROSOLS, NON-FLAMMABLE
Technical Name:	N/A
Hazard Class(es)	
Class:	2.2
Subsidiary Risk:	N/A
Packing Group:	N/A

IATA

UN Number:	UN1950
Proper Shipping Name:	AEROSOLS, NON-FLAMMABLE
Technical Name:	N/A
Hazard Class(es)	
Class:	2.2
Subsidiary Risk:	N/A
Packing Group:	N/A

IMDG

UN Number:	UN1950
Proper Shipping Name:	AEROSOLS, NON-FLAMMABLE
Technical Name:	N/A
Hazard Class(es)	
Class:	2.2
Subsidiary Risk:	N/A
Packing Group:	N/A

The classification shown in this section may be eligible for use of an exception, such as 'Limited Quantity', per the dangerous goods regulations. The shipper of this product should consult the applicable mode's regulation for the UN number displayed above to determine if any exceptions are available and may be utilized, at the shipper's discretion.

15. Regulatory Information

CHEMICAL INVENTORY STATUS:

TSCA	On or in compliance with the inventory
DSL	All ingredients in this product are listed on the DSL or are exempt.

CALIFORNIA PROPOSITION 65 CARCINOGENS AND REPRODUCTIVE TOXINS:

No Proposition 65 chemicals present or warning required.

16. Other Information

Revision Date: 5/26/2023

Datasheet produced by: Regulatory Department

Legend

N/A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined, N.I. - No Information

TLV - Threshold Limit Values (TLVs®), as established by the American Conference of Governmental Industrial Hygienists (ACGIH®)

PEL - Permissible Exposure Limit, as established by the U.S. Occupational Safety and Health Administration (OSHA), as amended

TSCA - U.S. Toxic Substance Control Act

DSL - Canada Environmental Protection Act: Domestic Substance List

This information is being provided in accordance with the Occupational Safety and Health Administration (OSHA) regulation (29 CFR 1910.1200). The information supplied is designed for workplaces where the product use and frequency of exposure exceeds that established for the labeled consumer use.

Further Information

This document has been prepared using data from sources considered to be technically reliable. It does not constitute a warranty, expressed or implied, as to the accuracy of the information contained herein. Actual conditions of use are beyond the manufacturer's and seller's control. Purchaser and user are responsible for determining the suitability of the product for a particular purpose, adopting precautions for the protection of property and persons, and compliance with all Federal, State, Provincial, and Local laws.



SAFETY DATA SHEET

1. Identification

Product identifier	Graffiti Remover - 12 oz	
Other means of identification		
Product Code	No. 03194 (Item# 1003449)	
Recommended use	Removal of graffiti from hard surfaces	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier/Distributor information		
Manufactured or sold by:		
Company name	CRC Industries, Inc.	
Address	885 Louis Dr. Warminster, PA 18974 US	
Telephone		
General Information	215-674-4300	
Technical Assistance	800-521-3168	
Customer Service	800-272-4620	
24-Hour Emergency (CHEMTREC)	800-424-9300 (US)	
Website	www.crcindustries.com	

2. Hazard(s) identification

Physical hazards	Flammable aerosols	Category 1
	Gases under pressure	Liquefied gas
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Carcinogenicity	Category 2
	Reproductive toxicity	Category 1B
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Specific target organ toxicity, repeated exposure	Category 2 (auditory system, central nervous system, kidney, liver)
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 3
OSHA defined hazards	Not classified.	

Label elements



Signal word

Danger

Hazard statement

Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. Suspected of causing cancer. May damage fertility or the unborn child. May cause damage to organs (auditory system, central nervous system, kidney, liver) through prolonged or repeated exposure.

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not apply while equipment is energized. Extinguish all flames, pilot lights, and heaters. Do not breathe mist/vapors. Vapors will accumulate readily and may ignite. Use only with adequate ventilation; maintain ventilation during use and until all vapors are gone. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

Response

If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If exposed or concerned: Get medical advice/attention.

Storage

Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Exposure to high temperature may cause can to burst.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

Supplemental information

None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
acetone		67-64-1	50 - 60
liquefied petroleum gas		68476-86-8	20 - 30
N-methyl-2-pyrrolidone		872-50-4	10 - 20
xylene		1330-20-7	1 - 5
ethylbenzene		100-41-4	0.5 - 1.5

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

Skin contact

Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion

In the unlikely event of swallowing contact a physician or poison control center. Rinse mouth. May cause drowsiness or dizziness. Narcosis. Headache. Nausea, vomiting. Behavioral changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. Edema. Jaundice. Prolonged exposure may cause chronic effects.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information

IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media

Water fog. Alcohol resistant foam. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical	Contents under pressure. Pressurized container may rupture when exposed to heat or flame. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire-fighting equipment/instructions	In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. Use standard firefighting procedures and consider the hazards of other involved materials. In the event of fire and/or explosion do not breathe fumes.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. In the event of fire and/or explosion do not breathe fumes.
General fire hazards	Extremely flammable aerosol. Contents under pressure. Pressurized container may rupture when exposed to heat or flame.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Remove all possible sources of ignition in the surrounding area. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapors. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Prevent product from entering drains. Stop the flow of material, if this is without risk. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. Do not breathe mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices. For product usage instructions, see the product label.
Conditions for safe storage, including any incompatibilities	Level 3 Aerosol.
	Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Avoid spark promoters. These alone may be insufficient to remove static electricity. Store in tightly closed container. Store in a well-ventilated place. Stored containers should be periodically checked for general condition and leakage. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
acetone (CAS 67-64-1)	PEL	2400 mg/m ³ 1000 ppm
ethylbenzene (CAS 100-41-4)	PEL	435 mg/m ³ 100 ppm
xylene (CAS 1330-20-7)	PEL	435 mg/m ³ 100 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
acetone (CAS 67-64-1)	STEL	500 ppm
	TWA	250 ppm
ethylbenzene (CAS 100-41-4)	TWA	20 ppm
xylene (CAS 1330-20-7)	STEL	150 ppm
	TWA	100 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
acetone (CAS 67-64-1)	TWA	590 mg/m ³ 250 ppm
ethylbenzene (CAS 100-41-4)	STEL	545 mg/m ³ 125 ppm
	TWA	435 mg/m ³ 100 ppm
xylene (CAS 1330-20-7)	STEL	655 mg/m ³ 150 ppm
	TWA	435 mg/m ³ 100 ppm

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
N-methyl-2-pyrrolidone (CAS 872-50-4)	TWA	40 mg/m ³ 10 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
acetone (CAS 67-64-1)	25 mg/l	Acetone	Urine	*
ethylbenzene (CAS 100-41-4)	0.15 g/g	Sum of mandelic acid and phenylglyoxylic acid	Creatinine in urine	*
N-methyl-2-pyrrolidone (CAS 872-50-4)	100 mg/l	5-Hydroxy-N-methyl-2-pyrrolidone	Urine	*

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
xylene (CAS 1330-20-7)	1.5 g/g	Methylhippuric acids	Creatinine in urine	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

N-methyl-2-pyrrolidone (CAS 872-50-4) Can be absorbed through the skin.

US WEEL Guides: Skin designation

N-methyl-2-pyrrolidone (CAS 872-50-4) Can be absorbed through the skin.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station. Eye wash fountain and emergency showers are recommended.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear protective gloves such as: Butyl rubber.

Other Wear appropriate chemical resistant clothing.

Respiratory protection

If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form Aerosol.

Color Light grey.

Odor

Solvent.

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

-138.5 °F (-94.7 °C) estimated

Initial boiling point and boiling range

132.9 °F (56.1 °C) estimated

Flash point

56.0 °F (13.3 °C) Setaflash

Evaporation rate

Fast.

Flammability (solid, gas)

Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) 1 % estimated

Flammability limit - upper (%) 12.8 % estimated

Vapor pressure

1376.4 hPa estimated

Vapor density

> 1 (air = 1)

Relative density

0.78

Solubility(ies)

Solubility (water) Soluble.

Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	473 °F (245 °C) estimated
Decomposition temperature	Not available.
Percent volatile	79.5 % estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat, flames and sparks. Contact with incompatible materials.
Incompatible materials	Strong acids. Strong oxidizing agents. Halogens. Peroxides. Phenols.
Hazardous decomposition products	Carbon oxides. Nitrogen oxides (NOx). Hydrocarbon fumes and smoke. Aldehydes.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause drowsiness or dizziness. Headache. Nausea, vomiting. May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	Based on available data, the classification criteria are not met.
Symptoms related to the physical, chemical and toxicological characteristics	May cause drowsiness or dizziness. Narcosis. Headache. Nausea, vomiting. Behavioral changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. Edema. Jaundice.

Information on toxicological effects

Acute toxicity	Not known.
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Components	Species	Test Results
acetone (CAS 67-64-1)		
Acute		
Dermal		
LD50	Rabbit	20000 mg/kg
Oral		
LD50	Rat	5800 mg/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Causes serious eye irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	This product is not expected to cause skin sensitization.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	Suspected of causing cancer.	

IARC Monographs. Overall Evaluation of Carcinogenicity

ethylbenzene (CAS 100-41-4)	2B Possibly carcinogenic to humans.
xylene (CAS 1330-20-7)	3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity	Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals. May damage fertility or the unborn child.
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Specific target organ toxicity - single exposure	May cause respiratory irritation. May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure	May cause damage to organs (auditory system, central nervous system, kidney, liver) through prolonged or repeated exposure.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Prolonged inhalation may be harmful. May cause damage to organs through prolonged or repeated exposure. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity	Harmful to aquatic life.
Persistence and degradability	No data is available on the degradability of any ingredients in the mixture.
Bioaccumulative potential	
Partition coefficient n-octanol / water (log Kow)	
acetone	-0.24
ethylbenzene	3.15
N-methyl-2-pyrrolidone	-0.54
xylene	3.12 - 3.2
Bioconcentration factor (BCF)	
ethylbenzene	1
xylene	23.99
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	If discarded, this product is considered a RCRA ignitable waste, D001. Contents under pressure. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Do not puncture, incinerate or crush. Dispose in accordance with all applicable regulations.
Hazardous waste code	D001: Waste Flammable material with a flash point <140 F
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT	
UN number	UN1950
UN proper shipping name	Aerosols, flammable, Limited Quantity
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
Special precautions for user	Not available.
Special provisions	N82
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None
IATA	
UN number	UN1950
UN proper shipping name	Aerosols, flammable, Limited Quantity
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Packing group	Not applicable.
ERG Code	10L
Special precautions for user	Not available.

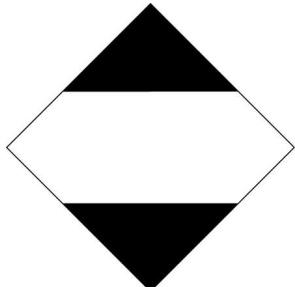
Other information

Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

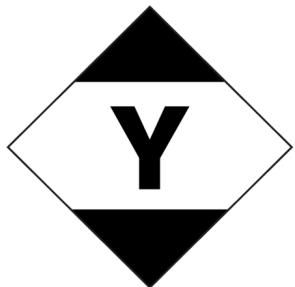
IMDG

UN number	UN1950
UN proper shipping name	AEROSOLS, Limited Quantity
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Packing group	Not applicable.
Environmental hazards	
Marine pollutant	No.
EmS	Not available.
Special precautions for user	Not available.

DOT; IMDG



IATA



15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

N-methyl-2-pyrrolidone (CAS 872-50-4) 1.0 % Annual Export Notification required.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

ethylbenzene (CAS 100-41-4)
N-methyl-2-pyrrolidone (CAS 872-50-4)
xylene (CAS 1330-20-7)

CERCLA Hazardous Substance List (40 CFR 302.4)

acetone (CAS 67-64-1)
ethylbenzene (CAS 100-41-4)
xylene (CAS 1330-20-7)

CERCLA Hazardous Substances: Reportable quantity

acetone (CAS 67-64-1)	5000 LBS
ethylbenzene (CAS 100-41-4)	1000 LBS
xylene (CAS 1330-20-7)	100 LBS

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

ethylbenzene (CAS 100-41-4)
xylene (CAS 1330-20-7)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Contains component(s) regulated under the Safe Drinking Water Act.
Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

acetone (CAS 67-64-1) 6532

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

acetone (CAS 67-64-1) 35 %WV

DEA Exempt Chemical Mixtures Code Number

acetone (CAS 67-64-1) 6532

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

acetone (CAS 67-64-1) Low priority

Food and Drug Administration (FDA)

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Classified hazard categories	Flammable (gases, aerosols, liquids, or solids) Gas under pressure Skin corrosion or irritation Serious eye damage or eye irritation Carcinogenicity Reproductive toxicity Specific target organ toxicity (single or repeated exposure) Hazard not otherwise classified (HNOC)
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SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
ethylbenzene	100-41-4	0.5 - 1.5
N-methyl-2-pyrrolidone	872-50-4	10 - 20
xylene	1330-20-7	1 - 5

US state regulations

US. New Jersey Worker and Community Right-to-Know Act

acetone (CAS 67-64-1)
ethylbenzene (CAS 100-41-4)
N-methyl-2-pyrrolidone (CAS 872-50-4)
xylene (CAS 1330-20-7)

US. Massachusetts RTK - Substance List

acetone (CAS 67-64-1)
ethylbenzene (CAS 100-41-4)
N-methyl-2-pyrrolidone (CAS 872-50-4)
xylene (CAS 1330-20-7)

US. Pennsylvania Worker and Community Right-to-Know Law

acetone (CAS 67-64-1)
ethylbenzene (CAS 100-41-4)
N-methyl-2-pyrrolidone (CAS 872-50-4)
xylene (CAS 1330-20-7)

US. Rhode Island RTK

acetone (CAS 67-64-1)
ethylbenzene (CAS 100-41-4)
xylene (CAS 1330-20-7)

California Proposition 65



WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

California Proposition 65 - CRT: Listed date/Carcinogenic substance

acetaldehyde (CAS 75-07-0)	Listed: April 1, 1988
benzene (CAS 71-43-2)	Listed: February 27, 1987
cumene (CAS 98-82-8)	Listed: April 6, 2010
ethylbenzene (CAS 100-41-4)	Listed: June 11, 2004
naphthalene (CAS 91-20-3)	Listed: April 19, 2002

California Proposition 65 - CRT: Listed date/Developmental toxin

benzene (CAS 71-43-2)	Listed: December 26, 1997
methanol (CAS 67-56-1)	Listed: March 16, 2012
N-methyl-2-pyrrolidone (CAS 872-50-4)	Listed: June 15, 2001
toluene (CAS 108-88-3)	Listed: January 1, 1991

California Proposition 65 - CRT: Listed date/Male reproductive toxin

benzene (CAS 71-43-2)	Listed: December 26, 1997
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US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

acetone (CAS 67-64-1)
ethylbenzene (CAS 100-41-4)
liquefied petroleum gas (CAS 68476-86-8)
N-methyl-2-pyrrolidone (CAS 872-50-4)
xylene (CAS 1330-20-7)

Volatile organic compounds (VOC) regulations

EPA

VOC content (40 CFR 51.100(s))	47.5 %
Consumer products (40 CFR 59, Subpt. C)	Not regulated

State

Consumer products	This product is regulated as a Graffiti Remover (aerosol). This product is compliant for use in all 50 states.
VOC content (CA)	47.5 %
VOC content (OTC)	47.5 %

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 07-17-2020

Prepared by Allison Yoon

Material name: Graffiti Remover - 12 oz

No. 03194 (Item# 1003449) Version #: 01 Issue date: 07-17-2020

SDS US

10 / 11

Version #	01
Further information	CRC # 553B/1002570
Disclaimer	The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC's knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or CRC Industries, Inc..
Revision information	This document has undergone significant changes and should be reviewed in its entirety.

MATERIAL SAFETY DATA SHEET

SECTION 1: IDENTIFICATION

Product identifier	: GUNK ENGINE CLEANER & DEGREASER
Product Use	: Cleaner / Degreaser.
Chemical Family	: Mixture.
Manufacturer part no.	: EBT32C
Supplier's name and address:	Manufacturer's name and address:
Radiator Specialty Co., of Canada	Refer to Supplier
1711 Aimco Blvd. Mississauga, ON, Canada L4W 1H7	
Information Telephone #	: (905) 625-9117 (Monday - Friday, 8 AM - 4 PM)
24 Hr. Emergency Tel #	: (613) 996-6666 (CANUTEC)

SECTION 2 - HAZARDS IDENTIFICATION

Classification	: WHMIS information: This product is a WHMIS Controlled Product. It meets one or more of the criteria for a controlled product provided in Part IV of the Canadian Controlled Products Regulations (CPR).
	WHMIS classification: Class D2B (Materials Causing Other Toxic Effects, Toxic Material).
	Labelling: Phrases recommended to appear on a supplier label, can be found in Section 15.
	WHMIS symbols required on a supplier label:



Emergency Overview	: Light yellow. Citrus odour. WARNING! May be harmful if inhaled or swallowed. May cause irritation of the nose, throat, mucous membranes, and respiratory tract. May cause skin irritation. May cause serious eye irritation or damage.
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POTENTIAL HEALTH EFFECTS:

Signs and symptoms of short-term (acute) exposure

- Inhalation* : May cause irritation to the nose, throat and upper respiratory tract.
- Skin* : May cause mild to moderate skin irritation. Exposure may cause temporary irritation, redness or discomfort. Can be absorbed through skin.
- Eyes* : May cause moderate to severe eye irritation. Contact may cause redness, swelling and a painful sensation. Prolonged exposure may cause eye damage.
- Ingestion* : May cause irritation of mouth, throat, and stomach. Symptoms include nausea, vomiting and diarrhea. Ingestion of larger amounts may cause defects to the central nervous system (e.g. dizziness, headache).

Effects of long-term (chronic) exposure

- : Prolonged skin contact may cause dermatitis (rash), characterized by red, dry, itching skin. Repeated or prolonged exposure may result in kidney effects.
- Carcinogenic status** : See TOXICOLOGICAL INFORMATION, Section 11.
- Additional health hazards** : See TOXICOLOGICAL INFORMATION, Section 11.
- Potential environmental effects** : See Section 12 for more environmental information.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredients</u>	<u>CAS #</u>	<u>Wt.%</u>
Diethylene glycol monobutyl ether	112-34-5	1.00 - 5.00
Alcohols, C9-11, ethoxylated	68439-46-3	1.00 - 5.00
Butyl 3-hydroxybutyrate	53605-94-0	1.00 - 5.00

SECTION 4 - FIRST AID MEASURES

- Inhalation** : If inhaled, move to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. If irritation or symptoms develop, seek medical attention.
- Skin contact** : For skin contact, flush with water for at least 15 minutes, while removing contaminated clothing. Get medical attention if symptoms persist. Wash contaminated clothing before re-use.
- Eye contact** : Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
- Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms persist.
- Notes For Physician** : Treat symptomatically.

SECTION 5 - FIRE FIGHTING MEASURES

- Fire hazards/conditions of flammability** : Not considered flammable. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure.
- Oxidizing properties** : None known.
- Explosion data: Sensitivity to mechanical impact / static discharge** : Not expected to be sensitive to mechanical impact or static discharge.
- Suitable extinguishing media** : Use media suitable to the surrounding fire such as water fog or fine spray, alcohol foams, carbon dioxide and dry chemical.
- Special fire-fighting procedures/equipment** : Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame.
- Hazardous combustion products** : Carbon oxides; Nitrogen oxides (NOx); Ammonia; formaldehyde; Other unidentified organic compounds.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

- Personal precautions** : All persons dealing with the clean-up should wear the appropriate chemically protective equipment. Keep all other personnel upwind and away from the spill/release. Restrict access to area until completion of clean-up. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions** : Ensure spilled product does not enter drains, sewers, waterways, or confined spaces.
- Spill response/cleanup** : Ventilate area of release. Remove all sources of ignition. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Notify the appropriate authorities as required.
- Prohibited materials** : None known or reported by the manufacturer.

SECTION 7 - HANDLING AND STORAGE

- Safe Handling procedures** : Use in a well-ventilated area. Wear suitable protective equipment during handling. Avoid breathing mist or vapours. Avoid contact with skin, eyes and clothing. Keep away from extreme heat and flame. Avoid contact with incompatible materials. Wash thoroughly after handling.
- Storage requirements** : Store in a cool, dry, well-ventilated area. Store away from incompatibles and out of direct sunlight. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks.

Incompatible materials : Strong oxidizing agents; Strong acids; Strong bases; Amines

Special packaging materials : Always keep in containers made of the same materials as the supply container.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

<u>Exposure Limits</u>		<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
<u>Ingredients</u>		<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Diethylene glycol monobutyl ether	10 ppm (inhalable) (vapor)	N/Av	N/Av	N/Av	N/Av
Alcohols, C9-11, ethoxylated	N/Av	N/Av	N/Av	N/Av	N/Av
Butyl 3-hydroxybutyrate	N/Av	N/Av	N/Av	N/Av	N/Av

Ventilation and engineering measures

: Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.

Respiratory protection : If the TLV is exceeded, a NIOSH/MSHA-approved respirator is advised. Advice should be sought from respiratory protection specialists.

Skin protection : Impervious gloves must be worn when using this product. Advice should be sought from glove suppliers. Depending on conditions of use, an impervious apron should be worn.

Eye / face protection : Chemical splash goggles are recommended.

Other protective equipment : An eyewash station and safety shower should be made available in the immediate working area.

General hygiene considerations

: Avoid breathing mist or vapours. Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash thoroughly after handling.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Liquid.	Appearance	: light yellow
Odour	: Citrus odour.	Odour threshold	: N/Av
pH	: 8.3		
Boiling point	: 100°C	Specific gravity	: 1.01
Melting/Freezing point	: 0°C	Coefficient of water/oil distribution	: N/Av
Vapour pressure (mmHg @ 20° C / 68° F)	: N/Av	Solubility in water	: Complete
Vapour density (Air = 1)	: N/Av	Evaporation rate (n-Butyl acetate = 1)	: N/Av
Volatile organic Compounds (VOC's)	: 3.5% (Weight percent)	Volatiles (% by weight)	: 92.87%
Flash point	: None.	Auto-ignition temperature	: N/Av
Flash point Method	: Tag closed cup	Upper flammable limit (% by vol.)	: N/Av
Lower flammable limit (% by vol.)	: N/Av	Flashback observed	: N/Av
Flame Projection Length	: N/Ap		
Absolute pressure of container		Viscosity	: N/Av
	: N/Ap		
General Information	: No additional information.		

Section 10: STABILITY AND REACTIVITY

Stability and reactivity : Stable under the recommended storage and handling conditions prescribed.

Hazardous polymerization : Hazardous polymerization does not occur.

Conditions to avoid : Avoid heat and open flame. Ensure adequate ventilation, especially in confined areas. Avoid contact with incompatible materials.

Materials To Avoid And Incompatibility

: Strong oxidizing agents; Strong acids; Strong bases; Amines

Hazardous decomposition products

: None known, refer to hazardous combustion products in Section 5.

SECTION 11 - TOXICOLOGICAL INFORMATION

Target organs	: Eyes, skin, respiratory system, digestive system, central nervous system. Kidneys		
Routes of exposure	: <i>Inhalation:</i> YES <i>Skin Absorption:</i> NO <i>Skin & Eyes:</i> YES <i>Ingestion:</i> YES		
Irritancy	: Moderate to severe eye irritant. Moderate skin irritant.		
Toxicological data	: There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.		

<u>Ingredients</u>	<u>LC₅₀(4hr)</u>	<u>LD₅₀</u>	
	<u>inh, rat</u>	<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Diethylene glycol monobutyl ether	N/Av	6560 mg/kg	2764 mg/kg
Alcohols, C9-11, ethoxylated	N/Av	1378 mg/kg	> 2000 mg/kg (No mortality)
Butyl 3-hydroxybutyrate	> 5 mg/L (mist)	> 5000 mg/kg	> 5000 mg/kg

Carcinogenic status : No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

Reproductive effects : Not expected to cause reproductive effects.

Teratogenicity : Not expected to be a teratogen.

Mutagenicity : Not expected to be mutagenic in humans.

Epidemiology : None known or reported by the manufacturer.

Sensitization to material : Not expected to be a skin or respiratory sensitizer.

Synergistic materials : None known or reported by the manufacturer.

other important hazards : None known or reported by the manufacturer.

Conditions aggravated by overexposure

: Pre-existing skin, eye and respiratory disorders.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity : The ecological characteristics of this product have not been fully investigated. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.

See the following tables for individual ingredient ecotoxicity data.

Ecotoxicity data:

<u>Ingredients</u>	<u>CAS No</u>	<u>Toxicity to Fish</u>		
		<u>LC₅₀ / 96h</u>	<u>NOEC / 21 day</u>	<u>M Factor</u>
Diethylene glycol monobutyl ether	112-34-5	1300 mg/L (Bluegill sunfish)	N/Av	None.
Alcohols, C9-11, ethoxylated	68439-46-3	8.5 mg/L (Fathead minnow)	N/Av	None.
Butyl 3-hydroxybutyrate	53605-94-0	> 100 mg/L (Rainbow trout)	N/Av	None.

<u>Ingredients</u>	<u>CAS No</u>	<u>Toxicity to Daphnia</u>		
		<u>EC₅₀ / 48h</u>	<u>NOEC / 21 day</u>	<u>M Factor</u>
Diethylene glycol monobutyl ether	112-34-5	> 100 mg/L (Daphnia magna)	N/Av	None.
Alcohols, C9-11, ethoxylated	68439-46-3	5.3 mg/L (Daphnia magna)	N/Av	None.
Butyl 3-hydroxybutyrate	53605-94-0	> 100 mg/L (Daphnia magna)	N/Av	N/Av

<u>Ingredients</u>	CAS No	Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
Diethylene glycol monobutyl ether	112-34-5	> 100 mg/L/96hr (Green algae)	N/Av	None.
Alcohols, C9-11, ethoxylated	68439-46-3	N/Av	N/Av	None.
Butyl 3-hydroxybutyrate	53605-94-0	> 100 mg/L/72hr (Green algae)	N/Av	None.

- Mobility** : No data is available on the product itself.
- Persistence** : No data is available on the product itself.
The following ingredients are considered to be readily biodegradable: Diethylene glycol monobutyl ether; Surfactant; Butyl 3-hydroxybutyrate.
- Bioaccumulation potential** : No data is available on the product itself. See the following data for ingredient information.

<u>Components</u>	<u>Partition coefficient n-octanol/water (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
Diethylene glycol monobutyl ether (CAS 112-34-5)	1.0	3.0
Alcohols, C9-11, ethoxylated (CAS 68439-46-3)	3.77 - 4.72	N/Av

Other Adverse Environmental effects

- No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13 - DISPOSAL CONSIDERATIONS

- Handling for Disposal** : Handle waste according to recommendations in Section 7. Empty containers retain residue (liquid and/or vapour) and can be dangerous. Follow labeled warnings even after container is emptied.
- Methods of Disposal** : Dispose of in accordance with federal, provincial and local hazardous waste laws.

SECTION 14: TRANSPORT INFORMATION

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
TDG	None.	Not regulated.	Not regulated	None	
TDG Additional information	None.				

SECTION 15 - REGULATORY INFORMATION

Labelling:

WARNING! May be harmful if inhaled or swallowed. May cause irritation of the nose, throat, mucous membranes, and respiratory tract. May cause skin irritation. May cause serious eye irritation or damage.

PRECAUTIONS: Use in a well-ventilated area. Wear suitable protective equipment during handling. Avoid breathing mist or vapours. Avoid contact with skin, eyes and clothing. Keep away from extreme heat and flame. Avoid contact with incompatible materials. Wash thoroughly after handling. Store in a cool, dry, well-ventilated area away from sources of heat, ignition and sunlight.

FIRST AID: If inhaled, move to fresh air. If breathing stops, provide artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. If irritation or symptoms develop, seek medical attention. For skin contact, flush with water for at least 15 minutes, while removing contaminated clothing. Get medical attention if symptoms persist. For eye contact, flush with running water for at least 15 minutes. Get medical attention. If ingested, do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms persist.

Refer To Material Safety Data Sheet for further information.

Canadian Information:

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

WHMIS information: Refer to Section 2 for a WHMIS Classification for this product.

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

US Federal Information:

TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

SECTION 16 - OTHER INFORMATION**Legend**

- : ACGIH: American Conference of Governmental Industrial Hygienists
- : AIHA: American Industrial Hygiene Association
- : CAS: Chemical Abstract Services
- : CNS: Central Nervous System
- : HSDB: Hazardous Substances Data Bank
- : IARC: International Agency for Research on Cancer
- : Inh: Inhalation
- : LC: Lethal Concentration
- : LD: Lethal Dose
- : MSHA: Mine Safety and Health Administration
- : N/Ap: Not Applicable
- : N/Av: Not Available
- : NIOSH: National Institute of Occupational Safety and Health
- : NOEC: No observable effect concentration
- : NTP: National Toxicology Program
- : OECD: Organisation for Economic Co-operation and Development
- : OSHA: Occupational Safety and Health Administration
- : PEL: Permissible exposure limit
- : RTECS: Registry of Toxic Effects of Chemical Substances
- : STEL: Short Term Exposure Limit
- : TDG: Canadian Transportation of Dangerous Goods Act & Regulations
- : TLV: Threshold Limit Values
- : TWA: Time Weighted Average
- : WEEL: Workplace Environmental Exposure Level
- : WHMIS: Workplace Hazardous Materials Identification System

References

- : 1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2016.
- : 2. International Agency for Research on Cancer Monographs, searched 2016.
- : 3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2016 (Chempendium, HSDB and RTECs).
- : 4. Material Safety Data Sheets from manufacturer.
- : 5. OECD - The Global Portal to Information on Chemical Substances - eChemPortal, 2016.

Prepared for:

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1711 Aimco Blvd.
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Please direct all enquiries to Radiator Specialty.

Prepared by:

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DISCLAIMER OF LIABILITY

This Material Safety Data Sheet was prepared by ICC The Compliance Center Inc. using information provided by Radiator Specialty Co. of Canada and CCOHS' Web Information Service. The information in the Material Safety Data Sheet is offered for your consideration and guidance when exposed to this product. ICC The Compliance Center Inc and Radiator Specialty Co. of Canada expressly disclaim all expressed or implied warranties and assume no responsibilities for the accuracy or completeness of the data contained herein. The data in this MSDS does not apply to use with any other product or in any other process.

This Material Safety Data Sheet may not be changed, or altered in any way without the expressed knowledge and permission of ICC The Compliance Center Inc. and Radiator Specialty Co. of Canada.

MSDS Preparation Date (mm/dd/yyyy)

: 09/10/2014

MSDS Revision Date (mm/dd/yyyy)

: 04/14/2016

Revision No. : 2**Revision Information** : (M)SDS sections updated:
3. COMPOSITION/INFORMATION ON INGREDIENTS;
8. EXPOSURE CONTROLS / PERSONAL PROTECTION;
11. TOXICOLOGICAL INFORMATION;
12. ECOLOGICAL INFORMATION**END OF DOCUMENT**



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
US OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canada WHMIS
2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous
Products Regulation (HPR)

Revision Date 19-Nov-2024

Version 1

1. Identification

Product identifier

Product Name 5J-1 INDIAN HEAD GASKET SHELLAC 2 FL.OZ

Other means of identification

Product Code 20539

UN number or ID number UN1866

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Sealant

Restrictions on use No information available

Details of the supplier of the safety data sheet

Manufacturer Address

ITW Permatex, Inc.
6875 Parkland Blvd.
Solon, Ohio 44139 USA
Telephone: 1-87-Permatex
(866) 732-9502

May Also Be Distributed by:

ITW Permatex Canada
101-2360 Bristol Circle
Oakville, ON Canada L6H 6M5
Telephone: (800) 924-6994

E-mail address mail@permatec.com

Emergency telephone number

Company Phone Number 866-732-9502

24 Hour Emergency Phone Number Chem-Tel: 800-255-3924
International Emergency:
00+1+ 813-248-0585
Contract Number: MIS0003453

24-hour emergency phone number No information available

2. Hazard(s) identification

Classification

Flammable liquids	Category 3
Skin sensitization	Category 1
Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 1

Label elements

Contains ROSIN; METHANOL; METHYL ISOBUTYL KETONE



Danger

Hazard statements

Flammable liquid and vapor.
May cause an allergic skin reaction.
Suspected of causing cancer.
Causes damage to organs.

Precautionary Statements - Prevention

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Use personal protective equipment as required.
Contaminated work clothing should not be allowed out of the workplace.
Do not breathe dust, fume, gas, mist, vapors and spray.
Wash face, hands and any exposed skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep container tightly closed.
Ground and bond container and receiving equipment.
Use only non-sparking tools.
Take action to prevent static discharges.
Use explosion-proof electrical, ventilating, lighting and other equipment.

Precautionary Statements - Response

IF exposed: Call a POISON CENTER or doctor.

Skin

If skin irritation or rash occurs: Get medical advice and attention.
Wash contaminated clothing before reuse.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water and then shower.

Fire

In case of fire: Use CO₂, dry chemical, or foam for extinction.

Precautionary Statements - Storage

Store locked up.
Store in a well-ventilated place. Keep cool.

Precautionary Statements - Disposal

Dispose of contents and container to an approved waste disposal plant.

3.93 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
28.35 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
97.74 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
93.75 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).
72.03 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Other Information

May be harmful if swallowed. May be harmful in contact with skin. Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

Chemical name	CAS No.	Weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
ROSIN	8050-09-7	45-70%	-	-
ETHANOL	64-17-5	10-30%	-	-
2-PROPANOL	67-63-0	1-5%	-	-
METHANOL	67-56-1	0.5-1.5%	-	-
METHYL ISOBUTYL KETONE	108-10-1	0.1-1%	-	-

4. First-aid measures

Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.
Inhalation	Remove to fresh air. IF exposed or concerned: Get medical advice/attention.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. If symptoms persist, call a physician.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. May cause an allergic skin reaction. If symptoms persist, call a physician.
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician.
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information.

Most important symptoms and effects, both acute and delayed

Symptoms	Itching. Rashes. Hives.
Effects of Exposure	Causes damage to organs.

Indication of any immediate medical attention and special treatment needed

Note to physicians	May cause sensitization in susceptible persons. Treat symptomatically.
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5. Fire-fighting measures

Suitable Extinguishing Media	Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.
Small Fire	In case of fire, use water spray, foam, dry chemical, or CO2.
Large Fire	In case of fire, use water spray, foam, dry chemical, or CO2.

Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
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Specific hazards arising from the chemical	Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Product is or
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contains a sensitizer. May cause sensitization by skin contact.

Hazardous combustion products No information available.

Explosion data

Sensitivity to mechanical impact None.
Sensitivity to static discharge Yes.

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.

Other information Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. Handling and storage

Precautions for safe handling

Advice on safe handling Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store locked up.

8. Exposure controls/personal protection**Control parameters****Exposure Limits**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
ROSIN 8050-09-7	TWA: 0.001 mg/m ³ total resin acids inhalable particulate matter dermal sensitizer;respiratory sensitizer	(vacated) TWA: 0.1 mg/m ³ Formaldehyde	TWA: 0.1 mg/m ³ Formaldehyde
ETHANOL 64-17-5	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1900 mg/m ³	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m ³
2-PROPANOL 67-63-0	TWA: 200 ppm STEL: 400 ppm	TWA: 400 ppm TWA: 980 mg/m ³ (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m ³ (vacated) STEL: 500 ppm (vacated) STEL: 1225 mg/m ³	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m ³ STEL: 500 ppm STEL: 1225 mg/m ³
METHANOL 67-56-1	TWA: 200 ppm STEL: 250 ppm Sk*	TWA: 200 ppm TWA: 260 mg/m ³ (vacated) TWA: 200 ppm (vacated) TWA: 260 mg/m ³ (vacated) STEL: 250 ppm (vacated) STEL: 325 mg/m ³ (vacated) Sk*	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m ³ STEL: 250 ppm STEL: 325 mg/m ³
METHYL ISOBUTYL KETONE 108-10-1	TWA: 20 ppm STEL: 75 ppm	TWA: 100 ppm TWA: 410 mg/m ³ (vacated) TWA: 50 ppm (vacated) TWA: 205 mg/m ³ (vacated) STEL: 75 ppm (vacated) STEL: 300 mg/m ³	IDLH: 500 ppm TWA: 50 ppm TWA: 205 mg/m ³ STEL: 75 ppm STEL: 300 mg/m ³

Chemical name	Alberta	British Columbia	Ontario	Quebec
ROSIN 8050-09-7	-	TWA: 0.001 mg/m ³ Dermal Sensitizer, Respiratory Sensitizer	TWA:	TWA: 0.001 mg/m ³ TWA:
ETHANOL 64-17-5	TWA: 1000 ppm TWA: 1880 mg/m ³	STEL: 1000 ppm	STEL: 1000 ppm	STEL: 1000 ppm
2-PROPANOL 67-63-0	TWA: 200 ppm TWA: 492 mg/m ³ STEL: 400 ppm STEL: 984 mg/m ³	TWA: 200 ppm STEL: 400 ppm	TWA: 200 ppm STEL: 400 ppm	TWA: 200 ppm STEL: 400 ppm
METHANOL 67-56-1	TWA: 200 ppm TWA: 262 mg/m ³ STEL: 250 ppm STEL: 328 mg/m ³ Sk*	TWA: 200 ppm STEL: 250 ppm Sk*	TWA: 200 ppm STEL: 250 ppm Sk*	TWA: 200 ppm TWA: 262 mg/m ³ STEL: 250 ppm STEL: 328 mg/m ³ Skin
METHYL ISOBUTYL KETONE 108-10-1	TWA: 50 ppm TWA: 205 mg/m ³ STEL: 75 ppm STEL: 307 mg/m ³	TWA: 20 ppm STEL: 75 ppm	TWA: 20 ppm STEL: 75 ppm	TWA: 20 ppm STEL: 75 ppm

Chemical name	Manitoba	New Brunswick	Newfoundland and Labrador	Nova Scotia
ROSIN	TWA: 0.001 mg/m ³ Dermal Sensitizer;Respiratory		TWA: 0.001 mg/m ³ Dermal Sensitizer; Respiratory Sensitizer	TWA: 0.001 mg/m ³ Dermal Sensitizer; Respiratory Sensitizer

Chemical name	Manitoba	New Brunswick	Newfoundland and Labrador	Nova Scotia
	Sensitizer			
ETHANOL	STEL: 1000 ppm	STEL: 1000 ppm	STEL: 1000 ppm	STEL: 1000 ppm
2-PROPANOL	TWA: 200 ppm STEL: 400 ppm			
METHANOL	TWA: 200 ppm STEL: 250 ppm Sk*			
METHYL ISOBUTYL KETONE	TWA: 20 ppm STEL: 75 ppm			

Chemical name	Nunavut	Prince Edward Island	Saskatchewan	Yukon
ROSIN		TWA: 0.001 mg/m ³		
ETHANOL	TWA: 1000 ppm STEL: 1250 ppm	STEL: 1000 ppm	TWA: 1000 ppm STEL: 1250 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³ STEL: 1000 ppm STEL: 1900 mg/m ³
2-PROPANOL	TWA: 200 ppm STEL: 400 ppm	TWA: 200 ppm STEL: 400 ppm	TWA: 200 ppm STEL: 400 ppm	TWA: 400 ppm TWA: 980 mg/m ³ STEL: 500 ppm STEL: 1225 mg/m ³ Sk*
METHANOL	TWA: 200 ppm STEL: 250 ppm Sk*	TWA: 200 ppm STEL: 250 ppm	TWA: 200 ppm STEL: 250 ppm Skin	TWA: 200 ppm TWA: 260 mg/m ³ STEL: 250 ppm STEL: 310 mg/m ³ Sk*
METHYL ISOBUTYL KETONE	TWA: 50 ppm STEL: 75 ppm	TWA: 20 ppm STEL: 75 ppm	TWA: 50 ppm STEL: 75 ppm	TWA: 100 ppm TWA: 410 mg/m ³ STEL: 125 ppm STEL: 510 mg/m ³ Sk*

Biological occupational exposure limits

Chemical name	ACGIH
2-PROPANOL 67-63-0	40 mg/L - urine (Acetone) - end of shift at end of workweek
METHANOL 67-56-1	15 mg/L - urine (Methanol) - end of shift
METHYL ISOBUTYL KETONE 108-10-1	1 mg/L - urine (MIBK) - end of shift

Appropriate engineering controls

Engineering controls
 Showers
 Eyewash stations
 Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Hand protection Wear suitable gloves. Impervious gloves.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

Respiratory protection

Appropriate respiratory protection should be selected and used according to the chemical nature, hazards and use of this product and safety requirements of the local jurisdiction. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations

Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	No information available
Color	Brown
Odor	No information available
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	10% in deionized water
Melting point / freezing point	No data available	Estimated
Boiling point / boiling range	82 °C / 179.6 °F	
Flash point	25 °C / 77 °F	
Evaporation rate	Not applicable	Butyl acetate = 1
Flammability (solid, gas)	No data available	Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge. None known
Flammability Limit in Air		
Upper flammability limit:	12.7%	
Lower flammability limit:	2.3%	
Vapor pressure	33 mmHg	
Vapor density	>1	Air = 1
Relative density	1.02	
Water solubility	No data available	Negligible
Solubility(ies)	No Data Available	None known
Partition coefficient	No Data Available	None known
Autoignition temperature	No data available	Estimated
Decomposition temperature	No data available	Remarks: Self-Accelerating decomposition temperature (SADT): 50 °C SADT-Self Accelerating Decomposition Temperature. Lowest temperature at which the tested package size will undergo a self-accelerating decomposition reaction.
Kinematic viscosity	No Data Available	Kinematic viscosity at 100 degrees C
Dynamic viscosity	No data available	Remarks: Self-Accelerating decomposition temperature (SADT): 50 °C SADT-Self Accelerating Decomposition Temperature. Lowest temperature at which the tested package size will undergo a self-accelerating decomposition reaction.

Other information

Explosive properties	No information available
Oxidizing properties	No information available
Softening point	No information available
Molecular weight	No information available
VOC content	28.68%
Density	No information available
Bulk density	No information available

10. Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Hazardous polymerization	No information available.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	None known based on information supplied.
Hazardous decomposition products	Carbon oxides. Aldehydes. Carboxylic acids.

11. Toxicological information

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	May cause sensitization by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). May be harmful in contact with skin.
Ingestion	Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	Itching. Rashes. Hives.
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Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	3,921.70 mg/kg
ATEmix (dermal)	2,336.10 mg/kg
ATEmix (inhalation-gas)	99,999.00 ppm
ATEmix (inhalation-vapor)	51.8081 mg/l
ATEmix (inhalation-dust/mist)	10.00 mg/l

3.93 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

28.35 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

97.74 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

93.75 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

72.03 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
ROSIN 8050-09-7	= 7600 mg/kg (Rat) = 3000 mg/kg (Rat)	> 2500 mg/kg (Rabbit)	= 1.5 mg/L (Rat) 4 h
ETHANOL 64-17-5	= 7060 mg/kg (Rat)	-	= 116.9 mg/L (Rat) 4 h = 133.8 mg/L (Rat) 4 h
2-PROPANOL 67-63-0	5050 mg/kg	12800 mg/kg	> 10000 ppm (Rat) 6 h

METHANOL 67-56-1	= 6200 mg/kg (Rat)	= 15840 mg/kg (Rabbit)	= 22500 ppm (Rat) 8 h
METHYL ISOBUTYL KETONE 108-10-1	= 2080 mg/kg (Rat)	= 3000 mg/kg (Rabbit)	2000 - 4000 ppm (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Skin corrosion/irritation** No information available.**Serious eye damage/eye irritation** No information available.**Respiratory or skin sensitization** May cause an allergic skin reaction.**Germ cell mutagenicity** No information available.**Carcinogenicity** Contains a known or suspected carcinogen. Classification based on data available for ingredients. Suspected of causing cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
ETHANOL 64-17-5	A3	Group 1	Known	X
METHYL ISOBUTYL KETONE 108-10-1	A3	Group 2B	-	X

Legend**ACGIH (American Conference of Governmental Industrial Hygienists)**

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

NTP (National Toxicology Program)

Known - Known Carcinogen

Occupational Safety and Health Administration of the US Department of Labor

X - Present

Reproductive toxicity No information available.**STOT - single exposure** Causes damage to organs.**STOT - repeated exposure** No information available.**Aspiration hazard** No information available.**12. Ecological information****Ecotoxicity** Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
ROSIN 8050-09-7	EC50: ~400mg/L (72h, Desmodesmus subspicatus)	-	-	EC50: 3.8 - 5.4mg/L (48h, Daphnia magna)
ETHANOL	-	LC50: 12.0 - 16.0mL/L	-	LC50: 9268 -

64-17-5		(96h, <i>Oncorhynchus mykiss</i>) LC50: >100mg/L (96h, <i>Pimephales promelas</i>) LC50: 13400 - 15100mg/L (96h, <i>Pimephales promelas</i>)		14221mg/L (48h, <i>Daphnia magna</i>) EC50: =2mg/L (48h, <i>Daphnia magna</i>)
2-PROPANOL 67-63-0	EC50: >1000mg/L (96h, <i>Desmodesmus subspicatus</i>) EC50: >1000mg/L (72h, <i>Desmodesmus subspicatus</i>)	LC50: =9640mg/L (96h, <i>Pimephales promelas</i>) LC50: =11130mg/L (96h, <i>Pimephales promelas</i>) LC50: >1400000µg/L (96h, <i>Lepomis macrochirus</i>)	-	EC50: =13299mg/L (48h, <i>Daphnia magna</i>)
METHANOL 67-56-1	-	LC50: =28200mg/L (96h, <i>Pimephales promelas</i>) LC50: >100mg/L (96h, <i>Pimephales promelas</i>) LC50: 19500 - 20700mg/L (96h, <i>Oncorhynchus mykiss</i>) LC50: 18 - 20mL/L (96h, <i>Oncorhynchus mykiss</i>) LC50: 13500 - 17600mg/L (96h, <i>Lepomis macrochirus</i>)	-	-
METHYL ISOBUTYL KETONE 108-10-1	EC50: =400mg/L (96h, <i>Pseudokirchneriella subcapitata</i>)	LC50: 496 - 514mg/L (96h, <i>Pimephales promelas</i>)	-	EC50: =170mg/L (48h, <i>Daphnia magna</i>)

Persistence and degradability No information available.

Bioaccumulation

Component Information

Chemical name	Partition coefficient
ROSIN 8050-09-7	7.7
ETHANOL 64-17-5	-0.35
2-PROPANOL 67-63-0	0.05
METHANOL 67-56-1	-0.77
METHYL ISOBUTYL KETONE 108-10-1	1.9

Other adverse effects No information available.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused products Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

US EPA Waste Number

Waste designations and classifications should be determined by the end user based on the application for which the product was used.

14. Transport information

DOT

UN number or ID number	UN1866
Proper shipping name	Resin solution
Transport hazard class(es)	3
Packing group	III
DOT Marine Pollutant	I
Marine pollutant	ROSIN.
Description	UN1866, Resin solution, 3, III, Marine pollutant
Special Provisions	B1, B52, IB3, T2, TP1
Emergency Response Guide Number	127

TDG

UN number or ID number	UN1866
UN proper shipping name	Resin solution
Transport hazard class(es)	3
Packing group	III
Marine pollutant name	ROSIN
Description	UN1866, Resin solution, 3, III

MEX

UN number or ID number	UN1866
UN proper shipping name	Resin solution
Transport hazard class(es)	3
Packing group	III
Description	UN1866, Resin solution, 3, III
Special Provisions	223

ICAO (air)

UN number or ID number	ID8000
UN proper shipping name	Consumer commodity
Transport hazard class(es)	9
Packing group	Not applicable
Special Provisions	A112

IATA

UN number or ID number	ID8000
UN proper shipping name	Consumer Commodity
Transport hazard class(es)	9
Packing group	Not applicable
ERG Code	9L
Special Provisions	A112

IMDG

UN number or ID number	UN1866
UN proper shipping name	Resin solution
Transport hazard class(es)	3
Packing group	III
Ems-No.	F-E, S-E
Special Provisions	223, 955
Description	UN1866, Resin solution, 3, III, (25°C c.c.), Marine pollutant

15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture**International Regulations****The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable**The Stockholm Convention on Persistent Organic Pollutants** Not applicable**The Rotterdam Convention** Not applicable**International Inventories**

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Complies
KECI	Complies
PICCS	Complies
AICS	Complies
NZIoC	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing Chemicals Inventory

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

US Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
2-PROPANOL - 67-63-0	1.0
METHANOL - 67-56-1	1.0
METHYL ISOBUTYL KETONE - 108-10-1	0.1

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	Reportable Quantity (RQ)
METHANOL 67-56-1	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ
METHYL ISOBUTYL KETONE 108-10-1	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

US State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical name	California Proposition 65
ETHANOL - 64-17-5	*Developmental (in alcoholic beverages)
METHANOL - 67-56-1	Developmental
METHYL ISOBUTYL KETONE - 108-10-1	Carcinogen Developmental

*Ethanol is only considered a Proposition 65 developmental hazard when it is ingested as an alcoholic beverage

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
ROSIN 8050-09-7	-	-	X
ETHANOL 64-17-5	X	X	X
2-PROPANOL 67-63-0	X	X	X
WATER 7732-18-5	-	-	X
METHANOL 67-56-1	X	X	X
METHYL ISOBUTYL KETONE 108-10-1	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

NFPA	Health hazards 3	Flammability 3	Instability 0	Special hazards -
HMIS	Health hazards 4 *	Flammability 3	Physical hazards 0	Personal protection X

Chronic Hazard Star Legend

* = Chronic Health Hazard

Key or legend to abbreviations and acronyms used in the safety data sheet**Legend**

SVHC: Substances of Very High Concern for Authorization:

PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances

vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances

STOT: Specific Target Organ Toxicity

ATE: Acute Toxicity Estimate

LC50: 50% Lethal Concentration

LD50: 50% Lethal Dose

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitizers		

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

Environmental Protection Agency

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision Date 19-Nov-2024

Revision Note No information available.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Material Safety Data Sheet

Date: 10-6-14

Section 1 – Product & Company Identification

Product Name: **LucasCide**

Product ID Number: 832

Product Use: **Disinfectant/Sanitizer/Cleaner**

Product Class: Quaternary Ammonium Compound

EPA Reg. Number: 10324-141-3974

Supplier Information:

Lucas Products Corporation
5655 Opportunity Drive
Toledo, OH 43612

Telephone

419-476-5992

Numbers:

24 hr. Emergency Assistance: Infotrac 1-800-535-5053

Section 2 – Composition/Information on Ingredients

INGREDIENT	CAS #	% by Weight	Exposure Limits	LC ₅₀ /LD ₅₀
Alkyl dimethyl benzyl ammonium chloride (C12-16)	68424-85-1	5% - 10%	Not established	Not established
Didecyldimethyl ammonium chloride	7173-51-5	7% - 15%	Not established	Not established
Ethanol	64-17-5	0% - 5%	ACGIH TLV, OSHA PEL 1000 ppm (TWA) US, CANADA, MEXICO	Acute Oral LD50: >1000 mg/kg (Rats) Acute Dermal: >2000 mg/kg (Rats)

Section 3 – Hazards Identification

Emergency Overview: Corrosive to the eyes, skin, gastrointestinal tract, and respiratory system.

Potential Health Effects:

Skin: Causes corrosive burns. Brief exposures may cause irritation and defatting of the skin. Exposures not promptly washed off may lead to toxic effects similar to ingestion. Harmful if absorbed through skin.

Eyes: Causes burns and may result in permanent injury to the eyes including blindness.

Inhalation: Mists and vapors can irritate the throat and respiratory tract. High vapor concentrations may cause central nervous system effects. Symptoms may include headaches, dizziness, and drowsiness. Harmful if inhaled.

Ingestion: Can cause gastrointestinal irritation, swelling of the larynx, difficulty in breathing, circulatory shock, convulsions and possibly death.

Chronic: Ingestion of ethanol by pregnant women can cause reproductive toxicity to the fetus.

Section 4 – First Aid Measures

Eyes: Immediately flush eyes with water for 15-20 minutes, while holding eyelids open. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Seek medical attention at once.

Skin/Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Inhalation: If symptoms are experienced, move victim to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Ingestion: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

Section 5 – Fire Fighting Measures

Flash Point: None when heated to 105°C – Tag Closed Cup Upper - Lower: Not determined

Extinguishing Media: Dry chemical, foam, carbon dioxide, water fog or any other agent suitable for surrounding fire.

Fire Fighting Equipment & Instructions: Firefighters should wear full protective clothing including self-contained breathing apparatus. Cool fire exposed containers with spray.

Hazardous Combustion Products: Irritating and toxic gases or fumes may be released during a fire.

Section 6 – Accidental Release Measures

Spill and Leak Procedures

Emergency Action: Isolate spill or leak area immediately. Keep unauthorized personnel away. Stay upwind. Keep out of low areas where vapors may accumulate. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area).

Spill Cleanup: Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

Section 7 – Handling & Storage

Handling Procedures: Avoid contact with skin and eyes. Use good personal hygiene practices. Wash thoroughly after using with soap and water.

Storage Procedures: Keep container tightly closed and in a cool, well-ventilated place. Keep from freezing. Do not handle or store near open flame, heat or other sources of ignition.

Section 8 – Exposure Controls/Personal Protection

Engineering Controls: Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

Personal Protective Equipment:

Eyes/Face: Wear chemical goggles. Use a face shield if splashing is possible.

Skin: Use rubber or neoprene gloves. Wear suitable protective clothing.

Respiratory: Not necessary unless exposure limits are exceeded, then use a NIOSH/MSNA approved respirator.

General: Eye wash fountain and emergency showers are recommended.

The following ingredients have established exposure guidelines:

INGREDIENT	EXPOSURE GUIDELINE	GUIDELINE VALUE
Ethanol (CAS# 64-17-5)	ACGIH TLV, OSHA PEL & NIOSH REL	1000 PPM (TWA)

All TWAs are for an 8-hour period and all STELs are for 15 minutes unless specifically noted as being for another time period.

Section 9 – Physical & Chemical Properties

Flash Point: None when heated to 105°C – Tag Closed Cup

Specific Gravity: 1.006

Percent Volatiles: Not determined.

VOC Content: < 1

Evaporation Rate: Not determined.

pH: 7 - 8

Appearance and Odor: blue colored liquid, mild

Section 10: Stability & Reactivity

Chemical Stability: Stable Conditions to Avoid: Keep away from heat and oxidizing agents.
Incompatibilities: Strong oxidizing agents.
Hazardous Decomposition: Carbon monoxide, carbon dioxide and hydrogen chloride vapors.
Hazardous Polymerization: Will not occur.

Section 11 – Toxicological Information

Carcinogenicity: No Carcinogenicity data available for this product.

Acute Oral LD50: >1,000 mg/kg in male and female rats.

Acute Dermal LD50: > 2,000 mg/m³ in male and female rabbits.

Primary Skin: Corrosive.

Primary Eye: Corrosive.

CHEMICAL INGREDIENTS LISTED AS POTENTIAL OR KNOWN CARCINOGENS

INGREDIENT

OSHA

NTP

IARC

No ingredients listed in this section.

Section 12 – Ecological Information

Ecotoxicity: No data available for this product but considered toxic to fish.

Environmental Fate: This product is biodegradable.

Section 13 – Disposal Considerations

Disposal Instructions: This substance, when discarded or disposed of, is a characteristic hazardous waste according to Federal regulation (40 CFR 261) and is assigned the EPA Hazardous Waste Number of D001. The discarding or disposal of this material must be done at a properly permitted facility in accordance with the regulations of 40 CFR 262, 263, 264, and 268. Additionally, the discarding or disposal of this material may be further regulated by state, regional, or local regulations. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate.

The transportation, storage, treatment and disposal of this waste material must be conducted in compliance with all applicable Federal, state, and local regulations.

Section 14 – Transportation Information – 49 CFR §173.154 (Exemption)

US Ground Transportation: This product as its packaged is considered non-hazardous and ships as a "Consumer Commodity" for US Ground transportation

DOT Hazard Class: ORM-D

DOT Proper Shipping Name: Consumer Commodity, Liquid Cleaning Compound, LTD. QTY.

IATA: ORM-D-AIR: >1.3 Gallons net capacity

Packages over 66 lbs.: UN1903, Disinfectant Liquid Corrosive, NOS (Quaternary Ammonium Compound), 8, PGIII

Section 15 – Regulatory Information

TSCA Status

While all ingredients are listed on the TSCA Chemical Inventory, this product is regulated as a pesticide under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and not subject to the TSCA Inventory rules for FIFRA uses.

Other Chemical Inventories

All components of this product are listed on the following inventories: Canada (DSL), China, and Philippines. One or more ingredients are not listed on the following inventories: Australia, Japan, European Union, Korea.

CERCLA/SARA

SARA Title III, Sections 311/312 – This act requires reporting under the Community Right-to-Know provisions due to the inclusion of the following components of this material in one or more of the five hazard categories listed in the 40 CFR 370: Classification of this product: Immediate, Fire

SARA Title 313 – This act requires submission of annual reports of releases of the following components of this material if the threshold reporting quantities, as listed in 40 CFR 372, are met or exceeded:

CHEMICAL NAME	CAS NO.	MAXIMUM CONCENTRATION	COMMENT
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No ingredients listed in this section.

Reportable Quantities/Threshold Planning Quantities: CERCLA requires notification of the National Response Center (Telephone 1-800-424-8802) in the event of a release of quantities of the following hazardous materials contained in this product, if the release is equal to or greater than the Reportable Quantities (RQs). SARA 302/304 requires emergency planning, including agency notification, for possible release of the following components of this material, based upon the Threshold Planning Quantities (TPQs) and/or release of Reportable Quantities.

CHEMICAL NAME	REPORTABLE QUANTITY (RQ)	THRESHOLD PLANNING QUANTITY (TPQ)
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No ingredients listed in this section.

State & Provincial Right to Know & Selected Regulatory Lists

The following ingredients appear on various state right to know lists and/or California's Proposition 65 List

CHEMICAL NAME	STATE LIST
Benzyl Chloride (trace < 100 ppm)	AZ, CA, CAP65C, CT, IL, MA, MN, NJ, PA, RI
Ethanol	AZ, CA, CT, ID, MA, MN, NJ, PA, RI
AZ – Arizona Ambient Air Quality Guidelines	IL – Illinois Toxic Air Contaminant – Carcinogenic
CT – Connecticut Hazardous Air Pollutants	MA – Massachusetts Right to Know List
CA – California Director's List of Hazardous Substances	MN – Minnesota Hazardous Substance List
CA65C – California Prop 65 Carcinogen	NJ – New Jersey Right to Know List
CA65R – California Prop 65 Reproductive Toxin	PA – Pennsylvania Right to Know List
FL – Florida Substances List	RI – Rhode Island Hazardous Substance List
ID – Idaho Non-carcinogen Toxic Air Pollutants	

WHMIS Classification: E, D2B. This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16 – Other Information

Hazard Ratings

Hazard Ratings

Hazard Rating Scale:

4 = Extreme

3 = High

2 = Moderate

1 = Slight

0 = Insignificant

HEALTH	2
FLAMMABILITY	0
REACTIVITY	0

The seller makes no warranty expressed or implied concerning the accuracy of any results to be obtained from the use of any information and no warranty expressed or implied concerning the use of the products. The buyer assumes all risks of the use and/or handling.



SteelStik™ Epoxy Putty

J-B Weld Company LLC

Version No: 5.9

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: 05/03/2024

Print Date: 05/03/2024

S.GHS.USA.EN

SECTION 1 Identification

Product Identifier

Product name	SteelStik™ Epoxy Putty
Synonyms	8267 (SteelStik™ Epoxy Putty Stick)
Other means of identification	UFI:SRVQ-J0S9-X008-KKMU

Recommended use of the chemical and restrictions on use

Relevant identified uses	Use according to manufacturer's directions.
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Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	J-B Weld Company LLC
Address	400 CMH Road TX 75482 United States
Telephone	903-885-7696
Fax	Not Available
Website	WWW.JBWeld.com
Email	info@JBWeld.com

Emergency phone number

Association / Organisation	InfoTrac
Emergency telephone numbers	Transportation Emergencies: 800-535-5053 or (24 hours)
Other emergency telephone numbers	Poison Control Centers: Medical Emergencies 800-222-1222 (24 hours)

SECTION 2 Hazard(s) identification

Classification of the substance or mixture

Classification	Skin Corrosion/Irritation Category 2, Sensitisation (Skin) Category 1, Serious Eye Damage/Eye Irritation Category 2A
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Label elements

Hazard pictogram(s)	A red diamond-shaped hazard pictogram containing a large white exclamation mark, indicating a serious hazard.
Signal word	Warning

Hazard statement(s)

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.

Hazard(s) not otherwise classified

Not Applicable

Supplementary statement(s)

Not Applicable

Precautionary statement(s) Prevention

SteelStik™ Epoxy Putty

P261	Avoid breathing mist/vapours/spray.
P280	Wear protective gloves, protective clothing, eye protection and face protection.
P264	Wash all exposed external body areas thoroughly after handling.
P272	Contaminated work clothing must not be allowed out of the workplace.

Precautionary statement(s) Response

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.
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SECTION 3 Composition / information on ingredients**Substances**

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
7439-89-6	25	<u>iron</u>
72244-98-5	24	<u>trimercaptan ether, propoxylated</u>
90-72-2*	4.5	<u>2,4,6-tris[(dimethylamino)methyl]phenol</u>
1333-86-4	0.5	<u>carbon black</u>
71074-89-0*	0.2	<u>bis[(dimethylamino)methyl]phenol</u>
14807-96-6*	38	<u>Talc</u>
65997-17-3	19	<u>glass, oxide</u>

SECTION 4 First-aid measures**Description of first aid measures**

Eye Contact	If this product comes in contact with the eyes: ▶ Wash out immediately with fresh running water. ▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ▶ Seek medical attention without delay; if pain persists or recurs seek medical attention. ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: ▶ Immediately remove all contaminated clothing, including footwear. ▶ Flush skin and hair with running water (and soap if available). ▶ Seek medical attention in event of irritation.
Inhalation	▶ If fumes, aerosols or combustion products are inhaled remove from contaminated area. ▶ Other measures are usually unnecessary.
Ingestion	▶ Immediately give a glass of water. ▶ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Most important symptoms and effects, both acute and delayed

See Section 11

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Fire-fighting measures**Extinguishing media**

Metal dust fires need to be smothered with sand, inert dry powders.

DO NOT USE WATER, CO₂ or FOAM.

- ▶ Use DRY sand, graphite powder, dry sodium chloride based extinguishers, G-1 or Met L-X to smother fire.
- ▶ **DO NOT** use halogenated fire extinguishing agents.

Special hazards arising from the substrate or mixture

Continued...

Fire Incompatibility	<ul style="list-style-type: none"> ▶ Reacts with acids producing flammable / explosive hydrogen (H₂) gas ▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
Special protective equipment and precautions for fire-fighters	
Fire Fighting	<ul style="list-style-type: none"> ▶ Alert Fire Department and tell them location and nature of hazard. ▶ Wear breathing apparatus plus protective gloves in the event of a fire.
Fire/Explosion Hazard	<p style="color: red;">▶ DO NOT disturb burning dust. Explosion may result if dust is stirred into a cloud, by providing oxygen to a large surface of hot metal.</p> <p style="color: red;">▶ DO NOT use water or foam as generation of explosive hydrogen may result.</p> <p>Combustible. Will burn if ignited. Combustion products include: carbon monoxide (CO) carbon dioxide (CO₂) nitrogen oxides (NO_x) sulfur oxides (SO_x) metal oxides other pyrolysis products typical of burning organic material. May emit corrosive fumes.</p>

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	<ul style="list-style-type: none"> ▶ Clean up all spills immediately. ▶ Avoid contact with skin and eyes. ▶ Wear impervious gloves and safety goggles.
Major Spills	<p>Minor hazard.</p> <ul style="list-style-type: none"> ▶ Clear area of personnel. ▶ Alert Fire Brigade and tell them location and nature of hazard.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling	<ul style="list-style-type: none"> ▶ Avoid all personal contact, including inhalation. ▶ Wear protective clothing when risk of exposure occurs. ▶ Use in a well-ventilated area.
Other information	<ul style="list-style-type: none"> ▶ Store in original containers. ▶ Keep containers securely sealed. ▶ Store in a cool, dry, well-ventilated area.

Conditions for safe storage, including any incompatibilities

Suitable container	<ul style="list-style-type: none"> ▶ Metal can or drum ▶ Packaging as recommended by manufacturer. ▶ Check all containers are clearly labelled and free from leaks.
Storage incompatibility	<p>For frits:</p> <ul style="list-style-type: none"> ▶ Avoid storage with hydrogen fluoride/ hydrofluoric acid, oxygen difluoride, manganese trifluoride, fluorine and other fluorine containing compounds, manganese trioxide, chlorates, chlorine trifluoride, chlorine trioxide, strong alkalis, metal oxides, concentrated orthophosphoric acid or vinyl acetate. ▶ WARNING: Avoid or control reaction with peroxides. All transition metal peroxides should be considered as potentially explosive. For example transition metal complexes of alkyl hydroperoxides may decompose explosively. ▶ Many metals may incandesce, react violently, ignite or react explosively upon addition of concentrated nitric acid. ▶ Reacts slowly with water. ▶ CAUTION contamination with moisture will liberate explosive hydrogen gas, causing pressure build up in sealed containers. ▶ Reacts violently with caustic soda, other alkalies - generating heat, highly flammable hydrogen gas. ▶ If alkali is dry, heat generated may ignite hydrogen - if alkali is in solution may cause violent foaming <p>Metals exhibit varying degrees of activity. Reaction is reduced in the massive form (sheet, rod, or drop), compared with finely divided forms. The less active metals will not burn in air but:</p> <ul style="list-style-type: none"> ▶ can react exothermically with oxidising acids to form noxious gases. ▶ Finely divided metal powders develop pyrophoricity when a critical specific surface area is exceeded; this is ascribed to high heat of oxide formation on exposure to air. ▶ Safe handling is possible in relatively low concentrations of oxygen in an inert gas. ▶ Several pyrophoric metals, stored in glass bottles have ignited when the container is broken on impact. ▶ Many metals in elemental form react exothermically with compounds having active hydrogen atoms (such as acids and water) to form flammable hydrogen gas and caustic products. ▶ Elemental metals may react with azo/diazo compounds to form explosive products. ▶ Some elemental metals form explosive products with halogenated hydrocarbons.

Continued...

SteelStik™ Epoxy Putty

SECTION 8 Exposure controls / personal protection**Control parameters****Occupational Exposure Limits (OEL)****INGREDIENT DATA**

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US OSHA Permissible Exposure Limits (PELs) Table Z-1	Talc	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	Talc	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	Talc	Silicates (less than 1% crystalline silica): Talc (containing asbestos)	Not Available	Not Available	Not Available	Use asbestos limit
US OSHA Permissible Exposure Limits (PELs) Table Z-3	Talc	Silicates (less than 1% crystalline silica): Talc (not containing asbestos)	20 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	Talc	Silicates (less than 1% crystalline silica): Soapstone	20 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	Talc	Talc (containing no asbestos and less than 1% quartz) - respirable	2 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	glass, oxide	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	glass, oxide	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	glass, oxide	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	glass, oxide	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	glass, oxide	Particulates not otherwise regulated	Not Available	Not Available	Not Available	See Appendix D
US OSHA Permissible Exposure Limits (PELs) Table Z-1	carbon black	Carbon black	3.5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	carbon black	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	carbon black	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	carbon black	Carbon black	3.5 mg/m3	Not Available	Not Available	Ca; TWA 0.1 mg PAHs/m3 [Carbon black in presence of polycyclic aromatic hydrocarbons (PAHs)] See Appendix A See Appendix C
US OSHA Permissible Exposure Limits (PELs) Table Z-1	iron	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	iron	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	iron	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	iron	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	iron	Particulates not otherwise regulated	Not Available	Not Available	Not Available	See Appendix D

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
glass, oxide	15 mg/m3	170 mg/m3	990 mg/m3
2,4,6-tris[(dimethylamino)methyl]phenol	6.5 mg/m3	72 mg/m3	430 mg/m3
carbon black	9 mg/m3	99 mg/m3	590 mg/m3
iron	3.2 mg/m3	35 mg/m3	150 mg/m3

Continued...

SteelStik™ Epoxy Putty

Ingredient	Original IDLH	Revised IDLH
Talc	1,000 mg/m3	Not Available
trimercaptan ether, propoxylated	Not Available	Not Available
glass, oxide	Not Available	Not Available
2,4,6-tris[(dimethylamino)methyl]phenol	Not Available	Not Available
carbon black	1,750 mg/m3	Not Available
bis[(dimethylamino)methyl]phenol	Not Available	Not Available
iron	Not Available	Not Available

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
trimercaptan ether, propoxylated	D	> 0.1 to ≤ 1 ppm
2,4,6-tris[(dimethylamino)methyl]phenol	E	≤ 0.1 ppm
Notes:	Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.	

Exposure controls

Appropriate engineering controls	Metal dusts must be collected at the source of generation as they are potentially explosive. <ul style="list-style-type: none"> ▶ Avoid ignition sources. ▶ Good housekeeping practices must be maintained.
Individual protection measures, such as personal protective equipment	    
Eye and face protection	<ul style="list-style-type: none"> ▶ Safety glasses with side shields. ▶ Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent] ▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.
Skin protection	See Hand protection below
Hands/feet protection	<ul style="list-style-type: none"> ▶ Wear chemical protective gloves, e.g. PVC. ▶ Wear safety footwear or safety gumboots, e.g. Rubber <p>NOTE:</p> <ul style="list-style-type: none"> ▶ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. ▶ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.
Body protection	See Other protection below
Other protection	<ul style="list-style-type: none"> ▶ Overalls. ▶ P.V.C apron. ▶ Barrier cream.

Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

- ▶ Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- ▶ The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- ▶ Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

SECTION 9 Physical and chemical properties**Information on basic physical and chemical properties**

Appearance	Grey Putty		
Physical state	Non Slump Paste	Relative density (Water = 1)	Not Available
Odor	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available

Continued...

SteelStik™ Epoxy Putty

Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	Not Available		
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	► Presence of heat source and ignition source Product is considered stable and hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 Toxicological information**Information on toxicological effects**

Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Not normally a hazard due to non-volatile nature of product
Ingestion	The material has NOT been classified by EC Directives or other classification systems as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence.
Skin Contact	This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. Irritation and skin reactions are possible with sensitive skin Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	This material can cause eye irritation and damage in some persons. Contact with the eye by metal dusts may produce mechanical abrasion or foreign body penetration of the eyeball. Iron particles embedded in the eye may cause discolouration of the cornea and iris, and effects on the pupil such as poor reaction to light and accommodation.
Chronic	Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.

SteelStik™ Epoxy Putty	TOXICITY	IRRITATION
	Not Available	Not Available
Talc	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg ^[1]	Eye: no adverse effect observed (not irritating) ^[1]
	Inhalation (Rat) LC50: >2.1 mg/l/4h ^[1]	Skin: no adverse effect observed (not irritating) ^[1]
	Oral (Rat) LD50: >5000 mg/kg ^[1]	
trimercaptan ether, propoxylated	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >10200 mg/kg ^[2]	Not Available

Continued...

SteelStik™ Epoxy Putty

	Oral (Rat) LD50: 2600 mg/kg ^[2]	
glass, oxide	TOXICITY Not Available	IRRITATION Not Available
2,4,6-tris[(dimethylamino)methyl]phenol	TOXICITY Dermal (rabbit) LD50: 1280 mg/kg ^[2]	IRRITATION Eye (rabbit): 0.05 mg/24h - SEVERE
	Inhalation (Rat) LC50: >0.5 mg/l/1 hr. ^[2]	Eye: adverse effect observed (irreversible damage) ^[1]
	Oral (Rat) LD50: 1200 mg/kg ^[2]	Skin (rabbit): 2 mg/24h - SEVERE
	Oral (Rat) LD50: 2500 mg/kg * ^[2]	Skin: adverse effect observed (corrosive) ^[1]
carbon black	TOXICITY Dermal (rabbit) LD50: >2000 mg/kg ^[1]	IRRITATION Eye: no adverse effect observed (not irritating) ^[1]
bis[(dimethylamino)methyl]phenol	TOXICITY Not Available	IRRITATION Not Available
iron	TOXICITY Oral (Rat) LD50: 98600 mg/kg ^[2]	IRRITATION Not Available

Legend:

1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

TRIMERCAPTAN ETHER, PROPOXYLATED	Polyethers (such as ethoxylated surfactants and polyethylene glycols) are highly susceptible to being oxidized in the air. They then form complex mixtures of oxidation products. Animal testing reveals that whole the pure, non-oxidised surfactant is non-sensitizing, many of the oxidation products are sensitizers. The oxidation products also cause irritation.
GLASS, OXIDE	A similar spherical glass powder was nontoxic to rats at 5,000 mg/kg. All animals survived, gained weight and appeared active and healthy. There were no signs of gross toxicity, adverse pharmacologic effects or abnormal behavior. There are no known reports of subchronic toxicity of nonfibrous glass. There are no known reports of carcinogenicity of nonfibrous glass When tested for primary irritation potential, a similar material caused minimal irritation to eyes and was non-irritating to skin. Dust in excess of recommended exposure limits may result in irritation to the respiratory tract
2,4,6-tris[(dimethylamino)methyl]phenol	Overexposure to most of these materials may cause adverse health effects. Many amine-based compounds can cause release of histamines, which, in turn, can trigger allergic and other physiological effects, including constriction of the bronchi or asthma and inflammation of the cavity of the nose. Whole-body symptoms include headache, nausea, faintness, anxiety, a decrease in blood pressure, rapid heartbeat, itching, reddening of the skin, urticaria (hives) and swelling of the face, which are usually transient. There are generally four routes of possible or potential exposure: inhalation, skin contact, eye contact, and swallowing. Inhalation: Inhaling vapours may result in moderate to severe irritation of the tissues of the nose and throat and can irritate the lungs. Higher concentrations of certain amines can produce severe respiratory irritation, characterized by discharge from the nose, coughing, difficulty in breathing and chest pain. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may cause severe skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Repeated exposures may produce severe ulceration. Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant.
CARBON BLACK	Inhalation (rat) TLo: 50 mg/m3/6h/90D-I Nil reported WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.
SteelStik™ Epoxy Putty & TRIMERCAPTAN ETHER, PROPOXYLATED	The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type.
TRIMERCAPTAN ETHER, PROPOXYLATED & GLASS, OXIDE & 2,4,6-tris[(dimethylamino)methyl]phenol & CARBON BLACK	No significant acute toxicological data identified in literature search.

Acute Toxicity	✗	Carcinogenicity	✗
Skin Irritation/Corrosion	✓	Reproductivity	✗
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	✗
Respiratory or Skin sensitisation	✓	STOT - Repeated Exposure	✗

Continued...

SteelStik™ Epoxy Putty

Mutagenicity



Aspiration Hazard



Legend: - Data either not available or does not fill the criteria for classification
 - Data available to make classification

SECTION 12 Ecological information

Toxicity

SteelStik™ Epoxy Putty	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
Talc	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96h	Fish	89581.016mg/l	2
	NOEC(ECx)	720h	Algae or other aquatic plants	918.089mg/l	2
trimercaptan ether, propoxylated	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50(ECx)	48h	Crustacea	12mg/l	Not Available
	EC50	48h	Crustacea	12mg/l	Not Available
	LC50	96h	Fish	87mg/l	Not Available
glass, oxide	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96h	Fish	>1000mg/l	2
	NOEC(ECx)	72h	Crustacea	>=1000mg/l	2
	EC50	72h	Algae or other aquatic plants	>1000mg/l	2
2,4,6-tris[(dimethylamino)methyl]phenol	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50(ECx)	24h	Crustacea	280mg/l	Not Available
	EC50	72h	Algae or other aquatic plants	2.8mg/l	2
	EC50	48h	Crustacea	>100mg/l	2
	LC50	96h	Fish	1000mg/l	Not Available
carbon black	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96h	Fish	>100mg/l	2
	EC50	72h	Algae or other aquatic plants	>0.2mg/l	2
	EC50	48h	Crustacea	33.076-41.968mg/l	4
	NOEC(ECx)	24h	Crustacea	3200mg/l	1
bis[(dimethylamino)methyl]phenol	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
iron	Endpoint	Test Duration (hr)	Species	Value	Source
	NOEC(ECx)	48h	Algae or other aquatic plants	0.1-4mg/l	4
	EC50	72h	Algae or other aquatic plants	18mg/l	2
	EC50	48h	Crustacea	>100mg/l	2
	LC50	96h	Fish	0.005-0.008mg/L	4

Legend:

Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
2,4,6-tris[(dimethylamino)methyl]phenol	HIGH	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation
2,4,6-tris[(dimethylamino)methyl]phenol	LOW (LogKOW = 0.773)

Continued...

Mobility in soil

Ingredient	Mobility
2,4,6-tris[(dimethylamino)methyl]phenol	LOW (Log KOC = 15130)

SECTION 13 Disposal considerations**Waste treatment methods**

Product / Packaging disposal	<ul style="list-style-type: none"> ▶ Containers may still present a chemical hazard/ danger when empty. ▶ Return to supplier for reuse/ recycling if possible. <p>Otherwise:</p> <ul style="list-style-type: none"> ▶ If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. ▶ DO NOT allow wash water from cleaning or process equipment to enter drains. ▶ It may be necessary to collect all wash water for treatment before disposal. ▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. ▶ Recycle wherever possible or consult manufacturer for recycling options. ▶ Consult State Land Waste Authority for disposal. ▶ Bury or incinerate residue at an approved site.

SECTION 14 Transport information**Land transport (DOT): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS****Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS****Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS****14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code**

Not Applicable

14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
Talc	Not Available
trimercaptan ether, propoxylated	Not Available
glass, oxide	Not Available
2,4,6-tris[(dimethylamino)methyl]phenol	Not Available
carbon black	Not Available
bis[(dimethylamino)methyl]phenol	Not Available
iron	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
Talc	Not Available
trimercaptan ether, propoxylated	Not Available
glass, oxide	Not Available
2,4,6-tris[(dimethylamino)methyl]phenol	Not Available
carbon black	Not Available
bis[(dimethylamino)methyl]phenol	Not Available
iron	Not Available

SECTION 15 Regulatory information**Safety, health and environmental regulations / legislation specific for the substance or mixture****Talc is found on the following regulatory lists**

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5

US - Massachusetts - Right To Know Listed Chemicals

US NIOSH Carcinogen List

US NIOSH Recommended Exposure Limits (RELS)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

Continued...

SteelStik™ Epoxy Putty

US OSHA Permissible Exposure Limits (PELs) Table Z-3

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

| trimercapton ether, propoxylated is found on the following regulatory lists

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

| glass, oxide is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5

US - California Proposition 65 - Maximum Allowable Dose Levels (MADLs) for Chemicals Causing Reproductive Toxicity

US - California Proposition 65 - No Significant Risk Levels (NSRLs) for Carcinogens

US - Massachusetts - Right To Know Listed Chemicals

US Clean Air Act - Hazardous Air Pollutants

US CWA (Clean Water Act) - Priority Pollutants

US CWA (Clean Water Act) - Toxic Pollutants

US DOE Temporary Emergency Exposure Limits (TEELs)

US National Toxicology Program (NTP) 15th Report Part B. Reasonably Anticipated to be a Human Carcinogen

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US OSHA Permissible Exposure Limits (PELs) Table Z-3

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

| 2,4,6-tris[(dimethylamino)methyl]phenol is found on the following regulatory lists

US DOE Temporary Emergency Exposure Limits (TEELs)

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

| carbon black is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5

US - California Proposition 65 - Carcinogens

US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List

US - Massachusetts - Right To Know Listed Chemicals

US DOE Temporary Emergency Exposure Limits (TEELs)

US NIOSH Carcinogen List

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US OSHA Permissible Exposure Limits (PELs) Table Z-3

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

| bis[(dimethylamino)methyl]phenol is found on the following regulatory lists

Not Applicable

| iron is found on the following regulatory lists

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5

US DOE Temporary Emergency Exposure Limits (TEELs)

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US OSHA Permissible Exposure Limits (PELs) Table Z-3

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

Additional Regulatory Information

Not Applicable

ECHA SUMMARY

Ingredient	CAS number	Index No	ECHA Dossier
Talc	14807-96-6*	Not Available	Not Available
Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Not Classified	Not Available	Not Available
2	Carc. 1A; Eye Irrit. 2; STOT RE 1; Acute Tox. 4; STOT SE 3; Aquatic Chronic 4; Acute Tox. 3	GHS08; Dgr; GHS06	H350; H319; H372; H302; H335; H413; H331

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
trimercapton ether, propoxylated	72244-98-5	Not Available	Not Available

Continued...

SteelStik™ Epoxy Putty

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Skin Sens. 1; Aquatic Chronic 3	GHS07; Wng	H317; H412
2	Skin Sens. 1; Aquatic Chronic 3; Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2	GHS07; Wng	H317; H412; H302; H315; H319

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
glass, oxide	65997-17-3	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Not Classified	Not Available	Not Available
2	Carc. 1B; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; STOT RE 2	GHS08; Dgr	H350; H315; H319; H335; H373

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
2,4,6-tris[(dimethylamino)methyl]phenol	90-72-2*	603-069-00-0	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2	GHS07; Wng	H302; H315; H319
2	Acute Tox. 4; Skin Corr. 1C; Eye Dam. 1; Skin Sens. 1B; Acute Tox. 4; Aquatic Chronic 2	GHS05; Dgr; GHS09	H314; H318; H317; H290; H312; H411; H301; H330

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
carbon black	1333-86-4	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Not Classified	Not Available	Not Available
2	STOT SE 3; Eye Irrit. 2; STOT RE 1; Self-heat. 1; Skin Irrit. 2; STOT SE 1; Aquatic Chronic 1; Flam. Sol. 2; Acute Tox. 4; Carc. 1A	GHS08; Dgr; GHS06; GHS02; GHS09	H335; H319; H372; H251; H228; H315; H370; H410; H332; H350

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
bis[(dimethylamino)methyl]phenol	71074-89-0*	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Acute Tox. 4; Acute Tox. 4; Skin Corr. 1B; Eye Dam. 1; STOT SE 3	GHS05; Dgr	H302; H312; H314; H318; H335
2	Acute Tox. 4; Acute Tox. 4; Skin Corr. 1B; Eye Dam. 1; STOT SE 3; Skin Sens. 1B	GHS05; Dgr	H302; H312; H314; H318; H335; H317

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Ingredient	CAS number	Index No	ECHA Dossier
iron	7439-89-6	Not Available	Not Available

Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Flam. Sol. 1; Eye Irrit. 2; STOT SE 3	GHS07; GHS02; Dgr	H228; H319; H335
2	Flam. Sol. 1; Eye Irrit. 2; STOT SE 3	GHS07; GHS02; Dgr	H228; H319; H335
1	Not Classified	Not Available	Not Available
2	Flam. Sol. 1; Self-heat. 1; Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2; Aquatic Acute 1; Aquatic Chronic 1; STOT SE 3; STOT SE 3; STOT RE 2; Pyr. Sol. 1; Water-react. 2	GHS02; Dgr; GHS09; GHS08	H228; H251; H302; H315; H319; H400; H410; H335; H370; H372; H250; H261

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

Federal Regulations**Superfund Amendments and Reauthorization Act of 1986 (SARA)****Section 311/312 hazard categories**

Flammable (Gases, Aerosols, Liquids, or Solids)	No
Gas under pressure	No
Explosive	No
Self-heating	No
Pyrophoric (Liquid or Solid)	No
Pyrophoric Gas	No

Continued...

SteelStik™ Epoxy Putty

Corrosive to metal	No
Oxidizer (Liquid, Solid or Gas)	No
Organic Peroxide	No
Self-reactive	No
In contact with water emits flammable gas	No
Combustible Dust	No
Carcinogenicity	No
Acute toxicity (any route of exposure)	No
Reproductive toxicity	No
Skin Corrosion or Irritation	Yes
Respiratory or Skin Sensitization	Yes
Serious eye damage or eye irritation	Yes
Specific target organ toxicity (single or repeated exposure)	No
Aspiration Hazard	No
Germ cell mutagenicity	No
Simple Asphyxiant	No
Hazards Not Otherwise Classified	No

US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

None Reported

US. EPCRA Section 313 Toxic Release Inventory (TRI) (40 CFR 372)

None Reported

Additional Federal Regulatory Information

Not Applicable

State Regulations**US. California Proposition 65**

 **WARNING:** This product can expose you to chemicals including **carbon black**, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov

Additional State Regulatory Information

Not Applicable

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	No (bis[(dimethylamino)methyl]phenol)
Canada - DSL	Yes
Canada - NDSL	No (Talc; trimercaptan ether, propoxylated; glass, oxide; 2,4,6-tris[(dimethylamino)methyl]phenol; carbon black; bis[(dimethylamino)methyl]phenol; iron)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	No (trimercaptan ether, propoxylated)
Japan - ENCS	No (Talc; trimercaptan ether, propoxylated; glass, oxide; iron)
Korea - KECI	No (bis[(dimethylamino)methyl]phenol)
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	No (trimercaptan ether, propoxylated; bis[(dimethylamino)methyl]phenol)
Vietnam - NCI	Yes
Russia - FBEPH	No (trimercaptan ether, propoxylated; bis[(dimethylamino)methyl]phenol)
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

SECTION 16 Other information

Revision Date	05/03/2024
Initial Date	09/13/2020

SDS Version Summary

Continued...

SteelStik™ Epoxy Putty

Version	Date of Update	Sections Updated
4.9	05/02/2024	Toxicological information - Acute Health (eye), Toxicological information - Acute Health (inhaled), Toxicological information - Acute Health (skin), Hazards identification - Classification, Exposure controls / personal protection - Engineering Control, Ecological Information - Environmental, Firefighting measures - Fire Fighter (extinguishing media), Firefighting measures - Fire Fighter (fire/explosion hazard), Firefighting measures - Fire Fighter (fire incompatibility), Composition / information on ingredients - Ingredients, Stability and reactivity - Instability Condition, Handling and storage - Storage (storage incompatibility)

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios.

Powered by AuthorITe, from Chemwatch.

SAFETY DATA SHEET

Revision Date 22-Apr-2015

Version 1

1. IDENTIFICATION

Product identifier

Product Name Kem-Tek Pool & Spa Care Swimming Pool Muriatic Acid

Other means of identification

Product Code 26459047371

UN/ID no. 1789

Recommended use of the chemical and restrictions on use

Recommended Use Swimming pool chemicals.

Uses advised against Do not mix with other chemicals

Details of the supplier of the safety data sheet

Manufacturer Address

KIK Pool Additives Inc
5160 East Airport Drive
Ontario, California 91761

Emergency telephone number

Emergency Telephone Chemtrec (Transportation) 1-800-424-9300, 703-527-3887
Poison Control Center (Medical) : (877) 800-5553

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1

Label elements

Emergency Overview

Danger

Hazard statements

Harmful if swallowed

Causes severe skin burns and eye damage

Harmful if inhaled



Color amber colorless to light amber

Physical state liquid

Odor Pungent

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
Do not breathe dust/fume/gas/mist/vapors/spray
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor/physician
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting.

Precautionary Statements - Storage

Store locked up. Store in a well-ventilated place. Store in a closed container.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical Name	CAS No.	Weight-%
Hydrogen chloride	7647-01-0	10-18*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

- Eye contact** Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.
Consult a physician.
- Skin contact** Wash skin with soap and water. If symptoms persist, call a physician.
- Inhalation** Remove to fresh air.
- Ingestion** Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. If symptoms persist, call a physician.

Most important symptoms and effects, both acute and delayed

- Symptoms** No information available.

Indication of any immediate medical attention and special treatment needed

- Note to physicians** Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media No information available.

Specific hazards arising from the chemical

No information available.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Ensure adequate ventilation, especially in confined areas.

Environmental precautions

Environmental precautions

See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Handle in accordance with good industrial hygiene and safety practice. Do not mix with other chemicals.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials

Strong oxidizing agents, Bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hydrogen chloride 7647-01-0	Ceiling: 2 ppm	(vacated) Ceiling: 5 ppm (vacated) Ceiling: 7 mg/m ³ Ceiling: 5 ppm	IDLH: 50 ppm Ceiling: 5 ppm Ceiling: 7 mg/m ³

	Ceiling: 7 mg/m ³	
NIOSH IDLH Immediately Dangerous to Life or Health		

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin and body protection	Wear protective gloves and protective clothing.
Respiratory protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid	Odor Odor threshold	Pungent No information available
Appearance	clear		
Color	amber, colorless to light amber		
Property	Values	Remarks • Method	
pH	< 1		
Melting point/freezing point	No information available		
Boiling point / boiling range	No information available		
Flash point	No information available		
Evaporation rate	No information available		
Flammability (solid, gas)	No information available		
Flammability Limit in Air			
Upper flammability limit:	No information available		
Lower flammability limit:	No information available		
Vapor pressure	No information available		
Vapor density	No information available		
Specific Gravity	No information available		
Water solubility	No information available		
Solubility in other solvents	No information available		
Partition coefficient	No information available		
Autoignition temperature	No information available		
Decomposition temperature	No information available		
Kinematic viscosity	No information available		
Dynamic viscosity	No information available		
Density	No information available		
Bulk density	No information available		
Explosive properties	No information available		
Oxidizing properties	No information available		

Other Information

Softening point No information available

Molecular weight No information available
VOC Content (%) No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Do not mix with other chemicals. Extremes of temperature and direct sunlight.

Incompatible materials

Strong oxidizing agents, Bases.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation	May be harmful if inhaled.
Eye contact	Avoid contact with eyes. Risk of serious damage to eyes. May cause burns.
Skin contact	Avoid contact with skin. May cause burns.
Ingestion	Harmful if swallowed. Can burn mouth, throat, and stomach. Ingestion causes burns of the upper digestive and respiratory tracts.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Hydrogen chloride 7647-01-0	238 - 277 mg/kg (Rat)	> 5010 mg/kg (Rabbit)	= 1.68 mg/L (Rat) 1 h

Information on toxicological effects

Symptoms	No information available.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Hydrogen chloride 7647-01-0	-	Group 3	-	-

IARC (International Agency for Research on Cancer)

Not classifiable as a human carcinogen

Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Target Organ Effects	Eyes, Respiratory system, Skin.
Aspiration hazard	No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

12. ECOLOGICAL INFORMATION

Ecotoxicity

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Hydrogen chloride 7647-01-0	-	282: 96 h Gambusia affinis mg/L LC50 static	-

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Do not reuse container. Refer to all federal, state and local regulations prior to disposal of container and unused contents by reuse, recycle or disposal.

14. TRANSPORT INFORMATION

Note:

Limited quantity (LQ) exception is possible

DOT

UN/ID no.	1789
Proper shipping name	HYDROCHLORIC ACID SOLUTION
Hazard Class	8
Packing Group	III
Description	UN1789 HYDROCHLORIC ACID SOLUTION, 8, III

IATA

UN/ID no.	1789
Proper shipping name	HYDROCHLORIC ACID SOLUTION
Hazard Class	8
Packing Group	III
Description	UN1789 HYDROCHLORIC ACID SOLUTION, 8, III

IMDG

UN/ID no.	1789
Proper shipping name	HYDROCHLORIC ACID SOLUTION
Hazard Class	8
Packing Group	III
Description	UN1789 HYDROCHLORIC ACID SOLUTION, 8, III

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
Hydrochloric Acid 36% - 7647-01-0	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Hydrogen chloride 7647-01-0	5000 lb	-	-	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Hydrogen chloride 7647-01-0	5000 lb	5000 lb	RQ 5000 lb final RQ RQ 2270 kg final RQ

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Hydrogen chloride 7647-01-0	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number This product does not contain any substances regulated as pesticides

Difference between SDS and CPSC label

This product is regulated under Consumer Product Safety Commission and is subject to certain labeling requirements under the Federal Hazardous Substances Act (16 CFR Part 1500) . These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace product labels.

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

<u>NFPA</u>	Health hazards 3	Flammability 0	Instability 1	Physical and Chemical Properties -
<u>HMIS</u>	Health hazards 3	Flammability 0	Physical hazards 1	Personal protection B

Prepared By Regulatory Affairs

Revision Date 22-Apr-2015

Revision Note No information available

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

SAFETY DATA SHEET

SDS NUMBER: 000890-15-LPI

SDS REVISIONS: FORMAT

DATE OF ISSUE: 01/16/15

KLEENUP® PRO

SUPERSEDES: 08/28/13

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 PRODUCT IDENTIFIER:

TRADE NAME: KLEENUP® PRO

1.2 RECOMMENDED USE:

GROUP 9 HERBICIDE

1.3 SUPPLIER DETAILS:

LOVELAND PRODUCTS, INC.

P.O. Box 1286 • Greeley, CO 80632-1286

1.4 24 Hour Emergency Phone: 1-800-424-9300 - Medical Emergencies: 1-866-944-8565

U.S. Coast Guard National Response Center: 1-800-424-8802

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to 29 CFR 1910.1200

Eye Irritation

Category 2B

H320

Skin irritation

Category 4

H312

2.2 Label elements



Signal word: WARNING

Hazard Statement: H320 – Causes eye irritation.

H312 – Harmful in contact with skin.

Precautionary Statement:

P262 – Do not get in eyes, on skin, or on clothing.

P264 - Wash thoroughly after handling.

(Prevention):

P271 – Use only outdoors or in a well-ventilated area.

P273 – Avoid release to the environment.

P280 – Wear protective gloves / eye protection / face protection.

P102 – Keep out of reach of children.

Precautionary Statement:

P305+P351+P338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

(Response):

P101 – If medical advice is needed, have the product container or label at hand.

P363 – Wash contaminated clothing before reuse.

P391 – Collect spillage.

Precautionary Statement:

P402+P234 – Store above 10°F (-12°C) to keep product from crystallizing. Keep only in original container.

(Storage):

P405 – Store locked up.

2.3 Other hazards

None known

KEEP OUT OF REACH OF CHILDREN –

Appearance and odor: Clear, viscous yellow liquid with amine odor.

Potential Health effects

Routes of exposure Eye contact.

Eyes Causes moderate eye irritation.

Skin Harmful in contact with skin.

Inhalation No data available.

Ingestion No data available.

Target organs Eyes.

Signs and symptoms Causes moderate eye irritation.

Potential environmental effects This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have harmful or damaging effect on the environment.

SAFETY DATA SHEET

SDS NUMBER: 000890-15-LPI

SDS REVISIONS: FORMAT

DATE OF ISSUE: 01/16/15

KLEENUP® PRO

SUPERSEDES: 08/28/13

3. COMPOSITION, INFORMATION ON INGREDIENTS

3.1 Substances

3.2 Mixtures

Classification according to 29 CFR 1910.1200

Chemical Name:	CAS No.	Classification	Concentration [%]
Isopropylamine salt of Glyphosate	38641-94-0	Eye Irrit. 2B; H320	41.00
Other ingredients	n/a	Skin irrit. 4; H312	Balance

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

General Advice: Get medical attention if symptoms occur.

Eye contact: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

4.2 Most Important Symptoms and Effects, Acute and Delayed

Symptoms: Eyes: Causes moderate eye irritation.

4.3 Immediate Medical Attention and Special Treatment

Treatment: Treat symptomatically. Symptoms may be delayed.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565

Take container, label or product name with you when seeking medical attention.

NOTES TO PHYSICIAN: Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA:

Suitable Extinguishing Media: Dry chemical, carbon dioxide (CO₂), alcohol foam, foam, water spray or fog. Do not use water jet as this will spread the fire.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Specific Hazards During Firefighting: During a fire, hazardous by-products can be released.

5.3 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS

Special Protective Equipment for Firefighters: Self-contained breathing apparatus and full protective gear should be worn in fighting large fires involving chemicals. Use water spray to keep fire exposed containers cool. Keep people away. Isolate fire and deny unnecessary entry.

SAFETY DATA SHEET

SDS NUMBER: 000890-15-LPI

SDS REVISIONS: FORMAT

DATE OF ISSUE: 01/16/15

KLEENUP® PRO

SUPERSEDES: 08/28/13

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Personal Precautions:

Avoid inhalation of vapors and spray mist and contact with skin and eyes. Ensure adequate ventilation. Wear suitable protective clothing.

6.2 ENVIRONMENTAL PRECAUTIONS

Environmental Precautions:

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP

Methods for Clean-Up:

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. After removal flush contaminated area thoroughly with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to Remove residual contamination.

Never return spills to original containers for re-use.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:

Advice on Safe Handling:

Avoid inhalation of mists, vapors / spray and contact with eyes, skin and clothing. Do not breathe mists or vapor. Wear personal protective equipment. Do not use in areas without adequate ventilation. Avoid prolonged exposure. Wash thoroughly after handling. Do not empty into drains. Handle and open container with care. Use care in handling/storage. Wash before eating, drinking and/or smoking.

7.2 CONDITIONS FOR SAFE STORAGE:

Requirements for Storage Areas and Containers:

Store above 10°F (-12.2°C) to keep product from crystallizing. Crystals will settle to the bottom of the container. If allowed to crystallize, place in a warm room at 68°F (20°C) for several days to redissolve and roll or shake container or recirculate in mini-bulk or bulk containers to mix well before using. Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 CONTROL PARAMETERS:

OCCUPATIONAL EXPOSURE LIMITS

U.S. Workplace Exposure Level (ACGIH) TLVs

Components	Type	Value
No data available.		

U.S. Workplace Exposure Level (OSHA) PELs

Components	Type	Value
No data available.		

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Specimen
No listings		

8.2 EXPOSURE CONTROLS:

Engineering Measures

Provide adequate general and local exhaust ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors and spray mists. Provide eyewash station and safety shower.

Individual Protection Measures:

Eye / Face Protection: Goggles or shielded safety glasses are recommended.

Skin Protection: Coveralls worn over long-sleeved shirt and long pants. Chemical-resistant gloves. Chemical-resistant footwear plus socks.

Respiratory Protection: In case of inadequate ventilation or risk of inhalation of mists or vapors, use suitable respiratory equipment such as MSHA/NIOSH TC-21C or NIOSH approved respirator with N, R, P or HE filter. Wear respiratory protection during operations where spraying or misting occurs. If respirators are used, a program should be in place to assure compliance with 29 CFR 1910.134, the OSHA Respiratory Protection standard. Wear air supplied respiratory protection if exposure concentrations are unknown.

SAFETY DATA SHEET

SDS NUMBER: 000890-15-LPI

SDS REVISIONS: FORMAT

DATE OF ISSUE: 01/16/15

KLEENUP® PRO

SUPERSEDES: 08/28/13

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 APPEARANCE : Clear viscous liquid
ODOR: Amine.
ODOR THRESHOLD: No data available.
COLOR: Yellow.
pH: 4.4 (1% solution)
MELTING POINT / FREEZING POINT: No data available
BOILING POINT: No data available
FLASH POINT: Does not flash.
FLAMMABILITY (solid, gas): No data available.
UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: No data available.
VAPOR PRESSURE: No data available.
SOLUBILITY: Soluble
PARTITION CO-EFFICIENT, n-OCTANOL / WATER: <3.2 @ 25°C (Glyphosate).
AUTO-IGNITION TEMPERATURE: No data available.
DECOMPOSITION TEMPERATURE: No data available
VISCOSITY: (kinematic): 22.42 cST @ 24°C
SPECIFIC GRAVITY (Water = 1): 1.169 – 1.178 g/ml
BULK DENSITY: 9.75 – 9.83 lbs./gal / 1.04 kg/L

Note: These physical data are typical values based on material tested but may vary from sample to sample.
Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

10. STABILITY AND REACTIVITY

10.1 REACTIVITY

Stable

10.2 CHEMICAL STABILITY

Stable under normal temperature conditions

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No data available. Will not polymerize.

10.4 CONDITIONS TO AVOID

Use of galvanized or unlined steel.

10.5 INCOMPATIBLE MATERIALS

This product and its spray solutions will react with galvanized or unlined steel to produce hydrogen gas that may form a highly combustible gas mixture, which could flash or explode if ignited. Acids and bases.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Will emit toxic fumes as it burns.

11 TOXICOLOGICAL INFORMATION

11.3 LIKELY ROUTES OF EXPOSURE

Eye contact. Skin contact.

LC₅₀ (rat): >7.03 mg/L (4 HR)

LD₅₀ Oral (rat): > 5,000 mg/kg

LD₅₀ Dermal (rat): > 5,000 mg/kg

Acute Toxicity Estimates: No data available

Skin Irritation (rabbit): Harmful if absorbed.

Eye Irritation (rabbit): Causes moderate eye irritation

Specific Target Organ Toxicity: Single exposure: No data available.

Aspiration: No data available

Skin Sensitization (guinea pig): Not a sensitizer

Carcinogenicity: No data available

Germ Cell Mutagenicity: No data available

Interactive Effects: None known

SAFETY DATA SHEET

SDS NUMBER: 000890-15-LPI

SDS REVISIONS: FORMAT

DATE OF ISSUE: 01/16/15

KLEENUP® PRO

SUPERSEDES: 08/28/13

12 ECOLOGICAL INFORMATION

12.3 ECOTOXICITY

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Ecotoxicological Data

	Species	Test Results
Glyphosate acid	Rainbow trout	5.4 mg/L – 96-hour LC ₅₀
	Bluegill	7.3 mg/L – 96-hour LC ₅₀
	Bee	>100µ/bee – Contact LD ₅₀

Drift or runoff may adversely affect non-target plants.

Do not apply directly to water.

Do not contaminate water when disposing of equipment wash water.

Do not apply when weather conditions favor drift from target area.

12.2 PERSISTENCE AND DEGRADABILITY

Biodegradability: No data available

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: No data available.

12.4 MOBILITY IN SOIL

No data available.

12.5 OTHER ADVERSE EFFECTS

Assessment: No data available.

13 DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Wastes may be disposed of on site or at an approved waste disposal facility. Triple rinse (or equivalent), adding rinse water to spray tank. Offer container for recycling or dispose of in a sanitary landfill or by other procedures approved by appropriate authorities. Recycling decontaminated containers is the best option of container disposal. The Agricultural Container Recycling Council (ACRC) operates the national recycling program. To contact your state and local ACRC recycler visit the ACRC web page at <http://www.acrecycle.org/>. Do not contaminate water, food or feed by storage or disposal.

14 TRANSPORT INFORMATION

14.3 LAND TRANSPORT

DOT Shipping Description: NOT REGULATED BY USDOT

U.S. Surface Freight Classification: COMPOUND, TREE OR WEED KILLING, NOI (NMFC 50320, SUB 2: CLASS 60)

15 REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS

NFPA & HMIS Hazard Ratings:	NFPA	HMIS
	1 Health	0 Least
	0 Flammability	1 Slight
	0 Instability	2 Moderate
		3 High
		4 Severe

SARA Hazard Notification/Reporting

SARA Title III Hazard Category:

Immediate _____ Y _____
Delayed _____ N _____

Fire _____ N _____
Reactive _____ N _____

Sudden Release of Pressure _____ N _____

SAFETY DATA SHEET

SDS NUMBER: 000890-15-LPI

SDS REVISIONS: FORMAT

DATE OF ISSUE: 01/16/15

KLEENUP® PRO

SUPERSEDES: 08/28/13

Reportable Quantity (RQ) under U.S. CERCLA: Not listed.

SARA, Title III, Section 313: Not listed.

RCRA Waste Code: Not listed.

CA Proposition 65: Not applicable

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

CAUTION

Harmful if absorbed through skin.

Causes moderate eye irritation.

Avoid contact with eyes, skin, or clothing.

16 OTHER INFORMATION

SDS STATUS: Format revised.

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental Health and Safety

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EPA REG. NO.: 34704-890

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Safety Data Sheet



Revision Number: 001.5

Issue date: 08/10/2020

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	LOCTITE METAL EPOXY HARDENER	IDH number:	1182050
Product type/use:	2-Component epoxy adhesive	Item number:	1154742_193459
Restriction of Use:	None identified	Region:	United States
Company address:		Contact information:	
Henkel Corporation One Henkel Way Rocky Hill, Connecticut 06067		Telephone: +1 (860) 571-5100 MEDICAL EMERGENCY Phone: Poison Control Center 1-877-671-4608 (toll free) or 1-303-592-1711 TRANSPORT EMERGENCY Phone: CHEMTREC 1-800-424-9300 (toll free) or 1-703-527-3887 Internet: www.henkelna.com	

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

DANGER:	CAUSES SEVERE SKIN BURNS AND EYE DAMAGE. MAY CAUSE AN ALLERGIC SKIN REACTION. SUSPECTED OF CAUSING GENETIC DEFECTS. MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.
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HAZARD CLASS	HAZARD CATEGORY
SKIN CORROSION	1B
SERIOUS EYE DAMAGE	1
SKIN SENSITIZATION	1
GERM CELL MUTAGENICITY	2
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	2

PICTOGRAM(S)



Precautionary Statements

Prevention:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe vapors, mist, or spray. Wash affected area thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, clothing, eye and face protection.
Response:	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical attention. If skin irritation or rash occurs: Get medical attention. Wash contaminated clothing before reuse.
Storage:	Store locked up.
Disposal:	Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

IDH number: 1182050

Product name: LOCTITE METAL EPOXY HARDENER

Hazardous Component(s)	CAS Number	Percentage*
Limestone	1317-65-3	40 - 50
Polymercaptan hardener	Proprietary	30 - 40
Calcium carbonate	471-34-1	5 - 10
m-Phenylenebis(methylamine)	1477-55-0	5 - 10
Substituted aminophenol	Proprietary	1 - 5
Phenol	108-95-2	1 - 5
Substituted aminophenol	Proprietary	0.1 - 1
Quartz (SiO ₂), <1% respirable	14808-60-7	0.1 - 1
Fatty acids, C16-18	67701-03-5	0.1 - 1

* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

4. FIRST AID MEASURES

- Inhalation:** Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If symptoms develop and persist, get medical attention.
- Skin contact:** Immediately wash skin thoroughly with soap and water. Remove contaminated clothing and footwear. If symptoms develop and persist, get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.
- Eye contact:** Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
- Ingestion:** DO NOT induce vomiting unless directed to do so by medical personnel. Keep individual calm. Get medical attention.
- Symptoms:** See Section 11.
- Notes to physician:** Treat symptomatically and supportively.

5. FIRE FIGHTING MEASURES

- Extinguishing media:** Water spray (fog), foam, dry chemical or carbon dioxide.
- Special firefighting procedures:** Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
- Unusual fire or explosion hazards:** In case of fire, keep containers cool with water spray.
- Hazardous combustion products:** Oxides of carbon. Oxides of nitrogen. Oxides of sulfur. Hydrogen sulfide.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

- Environmental precautions:** Do not allow product to enter sewer or waterways.
- Clean-up methods:** Ensure adequate ventilation. Wear appropriate personal protective equipment. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, saw dust). Scrape up spilled material and place in a closed container for disposal.

7. HANDLING AND STORAGE

- Handling:** Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Use only with adequate ventilation. Keep container closed.
- Storage:** For safe storage, store at or below 37.8 °C (100°F) Store in original container until ready to use. Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Keep away from heat, spark and flame.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Limestone	10 mg/m ³ TWA Total dust.	5 mg/m ³ PEL Respirable fraction. 15 mg/m ³ PEL Total dust.	None	None
Polymercaptan hardener	None	None	None	None
Calcium carbonate	10 mg/m ³ TWA Total dust.	5 mg/m ³ PEL Respirable fraction. 15 mg/m ³ PEL Total dust.	None	None
m-Phenylenebis(methylamine)	0.018 ppm Ceiling (SKIN)	None	None	None
Substituted aminophenol	None	None	None	None
Phenol	5 ppm TWA (SKIN)	5 ppm (19 mg/m ³) PEL (SKIN)	None	None
Substituted aminophenol	None	None	None	None
Quartz (SiO ₂), <1% respirable	0.025 mg/m ³ TWA Respirable fraction.	0.05 mg/m ³ TWA (Respirable dust.) (Respirable dust.) 0.025 mg/m ³ OSHA_ACT (Respirable dust.) 0.05 mg/m ³ PEL Respirable dust. 2.4 MPPCF TWA Respirable. 0.1 mg/m ³ TWA Respirable.	None	None
Fatty acids, C16-18	None	None	None	None

Engineering controls: Use local ventilation if general ventilation is insufficient to maintain vapor concentration below established exposure limits.

Respiratory protection: Use a NIOSH approved air-purifying respirator if the potential to exceed established exposure limits exists.

Eye/face protection: Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists. Safety showers and eye wash stations should be available.

Skin protection: Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Color:	Light Grey
Odor:	Mercaptan
Odor threshold:	Not available.
pH:	Not available.
Vapor pressure:	Not available.
Boiling point/range:	Not available.
Melting point/ range:	Not available.
Specific gravity:	1.5
Vapor density:	Not available.
Flash point:	> 93 °C (> 199.4 °F)
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not available.
Flammability:	Not applicable
Evaporation rate:	Not available.
Solubility in water:	Slightly soluble
Partition coefficient (n-octanol/water):	Not available.
VOC content:	2.13 %
Viscosity:	Not available.

Decomposition temperature: Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable
Hazardous reactions:	None under normal processing.
Hazardous decomposition products:	Oxides of nitrogen. Oxides of carbon. Calcium oxide.
Incompatible materials:	Strong acids. Strong oxidizing agents. Strong mineral acids. Reactive metals. Calcium hypochlorite. Sodium hypochlorite. Nitrous acid and other nitrosating agents. Peroxides.
Reactivity:	Not available.
Conditions to avoid:	Excessive heat. Keep away from heat, ignition sources and incompatible materials.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes, Ingestion

Potential Health Effects/Symptoms

Inhalation:	Mists, vapors or liquid may cause severe irritation or burns.
Skin contact:	Causes skin burns. May cause allergic skin reaction.
Eye contact:	Causes serious eye damage.
Ingestion:	May be harmful if swallowed. May cause burns of mouth and throat if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Limestone	None	Nuisance dust
Polymercaptan hardener	None	No Records
Calcium carbonate	Oral LD50 (Rat) = 6,450 mg/kg Oral LD50 (Mouse) = 6,450 mg/kg	Nuisance dust
m-Phenylenebis(methylamine)	None	Irritant, Liver, Kidney, Corrosive
Substituted aminophenol	None	Irritant, Allergen
Phenol	Oral LD50 (Mouse) = 270 mg/kg Oral LD50 (Rat) = 317 mg/kg Oral LD50 (Rat) = 530 mg/kg Dermal LD50 (Rat) = 669 mg/kg Dermal LD50 (Rabbit) = 850 mg/kg	Blood, Cardiac, Corrosive, Developmental, Eyes, Irritant, Kidney, Liver, Mutagen, Nervous System, Skin, Vascular
Substituted aminophenol	None	No Records
Quartz (SiO ₂), <1% respirable	None	Immune system, Lung, Some evidence of carcinogenicity
Fatty acids, C16-18	None	No Records

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Limestone	No	No	No
Polymercaptan hardener	No	No	No
Calcium carbonate	No	No	No
m-Phenylenebis(methylamine)	No	No	No
Substituted aminophenol	No	No	No
Phenol	No	No	No
Substituted aminophenol	No	No	No
Quartz (SiO ₂), <1% respirable	Known To Be Human Carcinogen.	Group 1	Yes
Fatty acids, C16-18	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal:	Follow all local, state, federal and provincial regulations for disposal.
Hazardous waste number:	It is the responsibility of the user to determine if an item is hazardous as defined in the Resource Conservation and Recovery Act (RCRA) at the time of disposal. Product uses, transformations, mixtures, processes, etc., may render the resulting material hazardous, under the criteria of ignitability, corrosivity, reactivity and toxicity characteristics of the Toxicity Characteristics Leaching Procedure (TCLP) 40 CFR 261.20-24.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name:	Amines, liquid, corrosive, n.o.s. (m-Xylylenediamine, 2,4,6-Tris(dimethyl amino methyl) phenole)
Hazard class or division:	8
Identification number:	UN 2735
Packing group:	II

International Air Transportation (ICAO/IATA)

Proper shipping name:	Amines, liquid, corrosive, n.o.s. (m-Xylylenediamine, 2,4,6-Tris(dimethyl amino methyl) phenole)
Hazard class or division:	8
Identification number:	UN 2735
Packing group:	II

Water Transportation (IMO/IMDG)

Proper shipping name:	AMINES, LIQUID, CORROSIVE, N.O.S. (m-Xylylenediamine, 2,4,6-Tris(dimethyl amino methyl) phenole)
Hazard class or division:	8
Identification number:	UN 2735
Packing group:	II

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status:	All components are listed as active or are exempt from listing on the Toxic Substances Control Act (TSCA) inventory.
TSCA 12 (b) Export Notification:	None above reporting de minimis
CERCLA/SARA Section 302 EHS:	Phenol (CAS# 108-95-2).
CERCLA/SARA Section 311/312:	Immediate Health, Delayed Health
CERCLA/SARA Section 313:	This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Phenol (CAS# 108-95-2).
California Proposition 65:	This product contains a chemical known in the State of California to cause cancer.

Canada Regulatory Information

CEPA DSL/NDSL Status:	All components are listed on or are exempt from listing on the Canadian Domestic Substances List.
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16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: This Safety Data Sheet contains changes from the previous version in Section(s): 3, 15

Prepared by: Product Safety and Regulatory Affairs

Issue date: 08/10/2020

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Safety Data Sheet



Revision Number: 006.0

Issue date: 02/21/2020

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	LOCTITE TITEFOAM	IDH number:	1988753
Product type/use:	Foam, 1-component with propellant gas	Region:	United States
Restriction of Use:	None identified	Contact information:	
Company address:		Telephone:	+1 (860) 571-5100
Henkel Corporation One Henkel Way Rocky Hill, Connecticut 06067		MEDICAL EMERGENCY Phone:	Poison Control Center 1-877-671-4608 (toll free) or 1-303-592-1711
		TRANSPORT EMERGENCY Phone:	CHEMTREC 1-800-424-9300 (toll free) or 1-703-527-3887
		Internet:	www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

DANGER:	EXTREMELY FLAMMABLE AEROSOL. CONTAINS GAS UNDER PRESSURE; MAY EXPLODE IF HEATED. CAUSES SKIN IRRITATION. MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES SERIOUS EYE IRRITATION. MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING DIFFICULTIES IF INHALED. CAUSES DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.
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HAZARD CLASS	HAZARD CATEGORY
FLAMMABLE AEROSOL.	1
GASES UNDER PRESSURE	Compr. Gas
SKIN IRRITATION	2
EYE IRRITATION	2A
RESPIRATORY SENSITIZATION	1
SKIN SENSITIZATION	1
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	1

PICTOGRAM(S)



Precautionary Statements

Prevention:	Keep away from heat, sparks, open flames, hot surfaces - no smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe mist or spray. Wash affected area thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, eye protection, and face protection. In case of inadequate ventilation wear respiratory protection.
Response:	IF ON SKIN: Wash with plenty of water. IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical attention. If eye irritation persists: Get medical attention. If experiencing respiratory symptoms: Call a poison center or physician. Take off contaminated clothing.
Storage: Disposal:	Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

2 % of the mixture consists of ingredient(s) of unknown acute toxicity.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
Methylenebis(phenylisocyanate)	101-68-8	5 - 10
dimethyl ether	115-10-6	10 - 20
Isobutane	75-28-5	1 - 5
propane	74-98-6	1 - 5
butane	106-97-8	0.1 - 1
Polyurethane prepolymer	Proprietary	70 - 80

* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

4. FIRST AID MEASURES

Inhalation:

If inhaled, immediately remove the affected person to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If symptoms develop and persist, get medical attention.

Skin contact:

Fresh foam : Wipe off affected skin area immediately with a soft cloth and then remove residues with vegetable oil; apply skin care product. Cured foam can be removed only mechanically. Immediately wash skin thoroughly with soap and water. Remove contaminated clothes.

Eye contact:

Flush eyes with plenty of water for at least 5 minutes. If irritation persists seek medical attention.

Ingestion:

Do not induce vomiting, seek medical advice immediately.

Symptoms:

See Section 11.

5. FIRE FIGHTING MEASURES

Extinguishing media:

Foam, dry chemical or carbon dioxide.

Special firefighting procedures:

Wear a self-contained breathing apparatus with a full face piece operated in pressure-demand or other positive pressure mode. Wear protective equipment.

Unusual fire or explosion hazards:

Cool aerosol containers with jet of water. Containers may explode. Contents under pressure.

Hazardous combustion products:

Isocyanate vapors In the event of a fire, carbon monoxide (CO), carbon dioxide (CO₂) and nitrogen oxides (NO_x) can be released.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions:

Remove all sources of ignition. Ventilate area. Wear appropriate personal protective equipment.

Clean-up methods:

Allow to solidify. Scrape up spilled material and place in a closed container for disposal.

7. HANDLING AND STORAGE

Handling:

Keep away from heat, spark and flame. Do not puncture or incinerate pressurized containers. Ensure adequate ventilation, especially in confined areas. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Keep out of the reach of children. When using do not eat, drink or smoke. Wear suitable protective clothing, gloves and eye/face protection. Refer to Section 8.

Storage:

Store between 50°F and 80°F. (10° and 27°C) Store away from heat, sparks, flames, or other sources of ignition. Do not store above 49 °C (120 °F). Do not cut or weld container.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Methylenebis(phenylisocyanate)	0.005 ppm TWA	0.02 ppm (0.2 mg/m ³) Ceiling	None	None
dimethyl ether	None	None	1,000 ppm (1,880 mg/m ³) TWA	None
Isobutane	1,000 ppm STEL (Simple asphyxiant.)	None	None	None
propane	D: Simple asphyxiant, EX: Explosion hazard (Simple asphyxiant.)	1,000 ppm (1,800 mg/m ³) PEL	None	None
butane	1,000 ppm STEL (Simple asphyxiant.)	None	None	None
Polyurethane prepolymer	None	None	None	None

Engineering controls:

Persons with asthmatic-type conditions, chronic bronchitis, other chronic respiratory diseases or recurrent skin eczema or sensitization should be excluded from working with isocyanates. Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

Respiratory protection:

In case of insufficient ventilation wear suitable respiratory equipment.

Eye/face protection:

Wear safety glasses with side shields.

Skin protection:

Rubber gloves recommended. Suitable protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Aerosol
Color:	Yellow-white
Odor:	slightly, of ether
Odor threshold:	Not available.
pH:	Not available.
Vapor pressure:	> 100 mm hg (20 °C (68°F))
Boiling point/range:	-42 °C (-43.6 °F)Compressed Gas.
Melting point/ range:	Not available.
Specific gravity:	1.107
Vapor density:	< 1 (Air = 1)
Flash point:	-104 °C (-155.2 °F)
Flammable/Explosive limits - lower:	0.4 % The product is not explosive. The formation of explosive vapor/air mixtures is possible.
Flammable/Explosive limits - upper:	32 % The product is not explosive. The formation of explosive vapor/air mixtures is possible.
Autoignition temperature:	Not available.
Flammability:	Extremely flammable aerosol.
Evaporation rate:	10 (Butyl acetate = 1)
Solubility in water:	Reacts slowly with water to liberate carbon dioxide gas.
Partition coefficient (n-octanol/water):	Not available.
VOC content:	19.28 %; 208.6 g/l (by weight, calculated using CARB method; g/L less water, less exempts calculated using SCAQMD method)
Viscosity:	Not available.

Decomposition temperature: Not available.

10. STABILITY AND REACTIVITY

Stability:	Not available.
Hazardous reactions:	May occur.
Hazardous decomposition products:	Carbon dioxide, carbon monoxide and irritating and/or toxic gases and particulate may be generated by thermal decomposition or combustion. nitrogen oxides
Incompatible materials:	Alcohols. Metal compounds. Strong bases. Water.
Reactivity:	Not available.
Conditions to avoid:	Keep away from sources of ignition and naked flames.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Inhalation, Ingestion, Skin

Potential Health Effects/Symptoms

Inhalation:	Inhalation of mist or spray may be harmful. As a result of previous repeated overexposures or a single large dose, certain individuals will develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate at levels well below the TLV. Chronic overexposure to isocyanates has been reported to cause lung damage. These symptoms, which can include chest tightness, wheezing, cough, shortness of breath or asthma attack, could be immediate or delayed (up to several hours after exposure). Persons suffering from allergic reactions to isocyanates should avoid contact with the product. May cause dizziness, incoordination, headache, nausea, and vomiting.
Skin contact:	Persons suffering from allergic reactions to isocyanates should avoid contact with the product. Prolonged or repeated skin contact may cause skin irritation or allergic skin sensitization reaction. This product may discolor the skin. Cured material is difficult to remove.
Eye contact:	Contact with eyes can cause eye irritation.
Ingestion:	Can cause irritation of mucous membranes. Nausea.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Methylenebis(phenylisocyanate)	Inhalation LC50 (Rat, 4 h) = 0.38 mg/l	Irritant, Respiratory, Allergen
dimethyl ether	None	Irritant, Central nervous system
Isobutane	None	Cardiac, Central nervous system, Lung
propane	None	Cardiac, Central nervous system, Irritant
butane	None	Cardiac, Central nervous system, Irritant
Polyurethane prepolymer	None	No Records

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Methylenebis(phenylisocyanate)	No	No	No
dimethyl ether	No	No	No
Isobutane	No	No	No
propane	No	No	No
butane	No	No	No
Polyurethane prepolymer	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal:	Dispose of according to Federal, State and local governmental regulations.
Hazardous waste number:	It is the responsibility of the user to determine if an item is hazardous as defined in the Resource Conservation and Recovery Act (RCRA) at the time of disposal. Product uses, transformations, mixtures, processes, etc., may render the resulting material hazardous, under the criteria of ignitability, corrosivity, reactivity and toxicity characteristics of the Toxicity Characteristics Leaching Procedure (TCLP) 40 CFR 261.20-24.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name:	Aerosols
Hazard class or division:	2.1
Identification number:	UN 1950
Packing group:	None

International Air Transportation (ICAO/IATA)

Proper shipping name:	Aerosols, flammable
Hazard class or division:	2.1
Identification number:	UN 1950
Packing group:	None

Water Transportation (IMO/IMDG)

Proper shipping name:	AEROSOLS
Hazard class or division:	2.1
Identification number:	UN 1950
Packing group:	None

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status:	All components are listed as active or are exempt from listing on the Toxic Substances Control Act (TSCA) inventory.
TSCA 12 (b) Export Notification:	None above reporting de minimis
CERCLA/SARA Section 302 EHS:	None above reporting de minimis.
CERCLA/SARA Section 311/312:	Immediate Health, Delayed Health, Fire, Sudden Release
CERCLA/SARA Section 313:	This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Methylenebis(phenylisocyanate) (CAS# 101-68-8).
California Proposition 65:	This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada Regulatory Information

CEPA DSL/NDSL Status:	Contains one or more components listed on the Non-Domestic Substances List. All other components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Record as required by Environment Canada. They may be imported into Canada in limited quantities. Please contact Regulatory Affairs for additional details.
Hazardous Materials Information Review Act:	10782, 2016-12-12

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: This Safety Data Sheet contains changes from the previous version in Section(s): 5, 9, 15

Prepared by: Product Safety and Regulatory Affairs

Issue date: 02/21/2020

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SAFETY DATA SHEET

Multipurpose Engine Oil (All Grades)

Revision Date: 05-24-2018

Section 1. Identification

Product Identifier

Product Name	Multipurpose Engine Oil (All Grades)
Common Name	Motor Oil SAE 10, 30, 40, 50
Product Code(s)	63025, 63029, 63030, 63031

Recommended or Restricted Uses

Recommended Use	Lubricant for engines
Restricted Use	Not Applicable

Canadian Supplier

Supplier	49 North Lubricants 6611 45 th Street, Leduc, Alberta T9E 7E3 Canada Tel: (780) 986-9260 Fax: (780) 986-9650
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Emergency Telephone Number

Emergency Telephone	CHEMTREC: 1-800-424-9300
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Section 2. Hazard Identification

Hazard Classification

WHMIS Regulatory Status	Not Regulated
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Physical Hazards	Not Classified
Health Hazards	Not Classified
Environmental Hazards	Not Classified

Label Elements	Not Applicable
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Other Hazards	Not Applicable
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Section 3. Composition / Information on Ingredients

Composition

This product does not contain any hazardous ingredients, or ingredients with national workplace exposure limits.

Section 4. First Aid Measures

Route of Exposure

Inhalation:	Move affected person to fresh air and keep warm and at rest. Loosen tight clothing such as collar, tie or belt. If breathing becomes difficult, properly trained personnel can assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing continues.
Skin Contact:	Rinse affected area with soap and water.
Eye Contact:	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes
Ingestion:	Rinse mouth thoroughly with water. Do not induce vomiting unless under the direction of medical personnel. Move affected person to fresh air and keep warm and at rest.

Most Important Systems and Effects

Inhalation:	May Cause: Coughing, Chest Tightness
Skin Contact:	May Cause: Temporary Skin Irritation
Eye Contact:	May Cause: Irritation or Redness in Eyes
Ingestion:	May Cause: Discomfort

Immediate Medical Attention and Special Treatment

Note for the Doctor	Treat Symptomatically
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Section 5. Fire-Fighting Measures

Extinguishing Media

Suitable Extinguishing Media Extinguish with alcohol-resistant foam, carbon dioxide powder or water fog.

Unsuitable Extinguishing Media Do not use water jet as an extinguisher, this can spread the fire.

Specific Hazards Arising from the Hazardous Product

Specific hazards Containers can burst violently or explode when heated. Contains Hydrocarbons. The product is immiscible with water and will spread on the water surface.

Hazardous combustion products Hydrocarbons. Carbon Monoxide (CO). Carbon Dioxide (CO₂).

Advice for Firefighters

Protective actions during firefighting Avoid breathing gases or vapours. Evacuate the area. Ventilate closed spaces before entering them. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk.

Special protective equipment for firefighters Not Applicable.

Section 6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Personal precautions Keep unnecessary and unprotected personnel away from spillage. Wear protective clothing as described in Section 8. Follow safe handling as described in Section 7. Wash thoroughly after dealing with a spill. Ensure procedures and training for emergency decontamination and disposal are in place. Do not touch or walk into spilled material.

Methods and Material for Containment and Cleaning Up

Methods for cleaning up Absorb spillage with non-combustible, absorbent material. For small spillages: wipe up with an absorbent cloth. Avoid discharge into drains or watercourses or onto the ground. For large spillages: Contain the spilled material, removed and dispose of contaminated material with a licensed waste disposal site. If environmental pollution occurs (sewers, waterways, soil or air) inform the relevant authorities. Large spills may require pumping of water or excavation of soil to clean up.

Methods for containment Use berms, skimmers, and absorbent to contain the spillage where appropriate. Ensure that wildlife is deterred from entering the contaminated area.

Section 7. Handling and Storage

Precautions for Safe Handling

Usage precautions Read and follow manufacturer's recommendations. Wear PPE as described in Section 8. Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash before eating, drinking or smoking. Handle all packages and containers carefully. Keep all containers tightly sealed when not in use.

Conditions for Safe Storage, Including any Incompatibilities

Storage Precautions Store away from incompatible materials listed in Section 10. Store in accordance with local regulations. Keep containers in a cool, well ventilated location. The storage area floor should be leak-tight and not absorbent.

Storage Class Not Applicable

Section 8. Exposure Controls / Personal Protection

Control Parameters

Occupational Exposure Limits Not Applicable

Appropriate Engineering Controls

Engineering controls Provide adequate ventilation. Use engineered ventilation as the primary means to minimize worker exposure.

Individual Protection Measures

General	All personal protective equipment (PPE) should comply with Canada OH&S Regulations (SOR/86-304)
Eye/Face protection	Recommended: Safety glasses. Where splash hazards exist use a face shield as well.
Hand protection	Recommended: Nitrile gloves.
Body protection	Recommended: Long sleeved coveralls.
Respiratory protection	If engineered ventilation is inadequate, use a NIOSH-certified respirator with a dual cartridge for organic vapor and P95 particulates.

Section 9. Physical and Chemical Properties

Physical Properties

Physical State	Liquid
Colour	Amber
Odour	Mild
Odour threshold	Not Available

Chemical Properties

pH	Not Available
Melting point / freezing point	Not Available
Flash point	> 205 °C (Method: Closed Cup)
Evaporation rate	< 1 (butyl acetate = 1)
Flammability (solid; gas)	Not Available
Lower Explosive Limit	Not Available
Upper Explosive Limit	Not Available
Vapour pressure	< 0.13 kPa @ 20°C
Vapour density	Not Available
Relative density	0.88 – 0.89
Solubility	Insoluble in water
Partition coefficient: n-octanol/water	Not Available
Decomposition temperature	Not Available
Viscosity	Not Available

Section 10. Stability and Reactivity

Reactivity	Not Available
Stability	Stable under normal conditions and use
Possibility of hazardous reactions	No reactions under normal conditions and use
Conditions to avoid	Not Applicable
Incompatible Materials	Oxidizing Agents
Hazardous decomposition products	No hazardous decomposition products under normal conditions and use

Section 11. Toxicological Information

Routes of Exposure	Ingestion, Inhalation, Skin/Eye Contact
<u>Symptoms</u>	
Physical	Skin/Eye contact may cause irritation or redness Ingestion may cause discomfort
Chemical	No Available Data
Toxicological	No Available Data
<u>Exposure Effects</u>	
Delayed Effects	No Available Data
Chronic Effects	No Available Data
<u>Acute Toxicity Estimates (ATE)</u>	
ATE oral (mg/kg)	No Available Data
ATE dermal (mg/kg)	No Available Data
ATE inhalation (mg/L)	No Available Data

Section 12. Ecological Information

No Available Data.

Section 13. Disposal Considerations

No Available Data. Follow local regulations.

Section 14. Transport Information

Not Applicable.

Section 15. Regulatory Information

Not Applicable.

Section 16. Other Information

SDS Revision Date:	05-24-2018
SDS Number(s)	63025 / 63029 / 63030 / 63031
Disclaimer:	The information contained herein is accurate to the best of our knowledge.

1. Identification

Product identifier	Nickel Anti-Seize & Lubricating Compound - 8 oz
Other means of identification	
Product Code	No. SL35911 (Item# 1007946)
Recommended use	Anti-seize and lubricating compound
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Manufactured or sold by:	
Company name	CRC Industries, Inc.
Address	885 Louis Dr. Warminster, PA 18974 US
Telephone	
General Information	215-674-4300
Technical Assistance	800-521-3168
Customer Service	800-272-4620
24-Hour Emergency (CHEMTREC)	800-424-9300 (US)
Website	www.crcindustries.com

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Sensitization, skin	Category 1
	Specific target organ toxicity, repeated exposure	Category 1
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		
Signal word	Danger	
Hazard statement	May cause an allergic skin reaction. Causes damage to organs through prolonged or repeated exposure.	
Precautionary statement		
Prevention	Use with adequate ventilation. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Do not breathe dust. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves.	
Response	If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. Get medical advice/attention if you feel unwell.	
Storage	Store away from incompatible materials.	
Disposal	Dispose of contents/container in accordance with local/regional/national regulations.	
Hazard(s) not otherwise classified (HNOC)	None known.	
Supplemental information	None.	

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
distillates (petroleum), solvent-refined heavy naphthenic		64741-96-4	60 - 70
graphite		7782-42-5	10 - 20
nickel		7440-02-0	5 - 10
aluminum		7429-90-5	3 - 5
amorphous silica		7631-86-9	3 - 5

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Carbon dioxide (CO2). Water Spray or Fog. Foam.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire-fighting equipment/instructions	Move containers from fire area if you can do so without risk. Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	The product is immiscible with water and will sediment in water systems. Stop the flow of material, if this is without risk. Following product recovery, flush area with water.
Environmental precautions	Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Sweep up or vacuum up spillage and collect in suitable container for disposal. For waste disposal, see section 13 of the SDS.

7. Handling and storage

Precautions for safe handling	Do not breathe dust. Avoid contact with eyes, skin, and clothing. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices. For product usage instructions, see the product label.
Conditions for safe storage, including any incompatibilities	Store in a cool, dry place out of direct sunlight. Keep container tightly closed. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
aluminum (CAS 7429-90-5)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
distillates (petroleum), solvent-refined heavy naphthenic (CAS 64741-96-4)	PEL	5 mg/m3	Mist.
		2000 mg/m3 500 ppm	
graphite (CAS 7782-42-5)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
nickel (CAS 7440-02-0)	PEL	1 mg/m3	

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
aluminum (CAS 7429-90-5)	TWA	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.
amorphous silica (CAS 7631-86-9)	TWA	0.8 mg/m3	
graphite (CAS 7782-42-5)	TWA	20 mppcf	
		15 mppcf	

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
aluminum (CAS 7429-90-5)	TWA	1 mg/m3	Respirable fraction.
distillates (petroleum), solvent-refined heavy naphthenic (CAS 64741-96-4)	TWA	5 mg/m3	Inhalable fraction.
graphite (CAS 7782-42-5)	TWA	2 mg/m3	Respirable fraction.
nickel (CAS 7440-02-0)	TWA	1.5 mg/m3	Inhalable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
aluminum (CAS 7429-90-5)	TWA	5 mg/m3	Respirable.
		5 mg/m3	Welding fume or pyrophoric powder.
		10 mg/m3	Total
amorphous silica (CAS 7631-86-9)	TWA	6 mg/m3	
distillates (petroleum), solvent-refined heavy naphthenic (CAS 64741-96-4)	Ceiling	1800 mg/m3	
	STEL	10 mg/m3	Mist.
graphite (CAS 7782-42-5)	TWA	2.5 mg/m3	Respirable.
nickel (CAS 7440-02-0)	TWA	0.015 mg/m3	

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines	Occupational Exposure Limits are not relevant to the current physical form of the product.
Appropriate engineering controls	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection	
Hand protection	Wear protective gloves such as: Nitrile.
Other	Wear appropriate chemical resistant clothing.
Respiratory protection	If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Wear a dust mask if dust is generated above exposure limits. Air monitoring is needed to determine actual employee exposure levels.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state	Solid.
Form	Paste.
Color	Silver.
Odor	Petroleum.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	1220 °F (660 °C) estimated
Initial boiling point and boiling range	680 °F (360 °C) estimated
Flash point	425 °F (218.3 °C) Cleveland Open Cup
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Vapor pressure	330055.3 hPa estimated
Vapor density	Not available.
Relative density	1.18
Solubility(ies)	
Solubility (water)	Insoluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	500 °F (260 °C) estimated
Decomposition temperature	Not available.
Percent volatile	33.3 % estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.

Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with incompatible materials.
Incompatible materials	Oxidizing material.
Hazardous decomposition products	Carbon oxides. Metal oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	No adverse effects due to inhalation are expected.
Skin contact	May cause an allergic skin reaction.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity	Not known.
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Product	Species	Test Results
Nickel Anti-Seize & Lubricating Compound - 8 oz		
Acute		
Oral		
LD50	Rat	121500 mg/kg Acute Toxicity Estimate (ATE)
Components	Species	Test Results
aluminum (CAS 7429-90-5)		
Acute		
Oral		
LD50	Rat	> 15900 mg/kg
amorphous silica (CAS 7631-86-9)		
Acute		
Oral		
LD50	Rat	> 22500 mg/kg
distillates (petroleum), solvent-refined heavy naphthenic (CAS 64741-96-4)		
Acute		
Dermal		
LD50	Rabbit	> 5000 mg/kg
Oral		
LD50	Rat	> 5000 mg/kg
graphite (CAS 7782-42-5)		
Acute		
Oral		
LD50	Rat	> 10000 mg/kg
nickel (CAS 7440-02-0)		
Acute		
Dermal		
LD50	Rat	> 9000 mg/kg
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.	
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	Not a respiratory sensitizer.	

Skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

amorphous silica (CAS 7631-86-9) 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Causes damage to organs through prolonged or repeated exposure. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
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Components	Species	Test Results
aluminum (CAS 7429-90-5)		
Aquatic		
Fish	LC50 Grass carp, white amur (Ctenopharyngodon idella)	0.21 - 0.31 mg/l, 96 hours
graphite (CAS 7782-42-5)		
Aquatic		
Acute		
Fish	LC50 Fish	> 1800 mg/l, 96 hours
nickel (CAS 7440-02-0)		
Aquatic		
Fish	LC50 Pumpkinseed (Lepomis gibbosus)	8 mg/l, 96 hours
Acute		
Crustacea	EC50 Water flea (Daphnia magna)	> 100 mg/l, 48 hours
Persistence and degradability	No data is available on the degradability of any ingredients in the mixture.	
Bioaccumulative potential	No data available.	
Mobility in soil	No data available.	
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.	

13. Disposal considerations

Hazardous waste code	Not regulated.
Disposal instructions	This product is not a RCRA hazardous waste (See 40 CFR Part 261.20 – 261.33). Empty containers may be recycled. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose in accordance with all applicable regulations.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

nickel (CAS 7440-02-0)

CERCLA Hazardous Substance List (40 CFR 302.4)

nickel (CAS 7440-02-0)

CERCLA Hazardous Substances: Reportable quantity

nickel (CAS 7440-02-0) 100 LBS

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

nickel (CAS 7440-02-0)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.**Food and Drug Administration (FDA)** Not regulated.**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

Classified hazard categories	Respiratory or skin sensitization
	Specific target organ toxicity (single or repeated exposure)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
nickel	7440-02-0	5 - 10

US state regulations**US. New Jersey Worker and Community Right-to-Know Act**

aluminum (CAS 7429-90-5)
graphite (CAS 7782-42-5)
nickel (CAS 7440-02-0)

US. Massachusetts RTK - Substance List

aluminum (CAS 7429-90-5)
amorphous silica (CAS 7631-86-9)
distillates (petroleum), solvent-refined heavy naphthenic (CAS 64741-96-4)
graphite (CAS 7782-42-5)
nickel (CAS 7440-02-0)

US. Pennsylvania Worker and Community Right-to-Know Law

aluminum (CAS 7429-90-5)
amorphous silica (CAS 7631-86-9)

graphite (CAS 7782-42-5)
nickel (CAS 7440-02-0)

US. Rhode Island RTK

aluminum (CAS 7429-90-5)
distillates (petroleum), solvent-refined heavy naphthenic (CAS 64741-96-4)
graphite (CAS 7782-42-5)
nickel (CAS 7440-02-0)

California Proposition 65



WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

California Proposition 65 - CRT: Listed date/Carcinogenic substance

nickel (CAS 7440-02-0) Listed: October 1, 1989

California Proposition 65 - CRT: Listed date/Developmental toxin

nickel (soluble compounds) (CAS s~ni~d) Listed: October 26, 2018

California Proposition 65 - CRT: Listed date/Male reproductive toxin

nickel (soluble compounds) (CAS s~ni~d) Listed: October 26, 2018

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

aluminum (CAS 7429-90-5)
distillates (petroleum), solvent-refined heavy naphthenic (CAS 64741-96-4)
nickel (CAS 7440-02-0)

Volatile organic compounds (VOC) regulations

EPA

VOC content (40 CFR 51.100(s)) 1.8 %

Consumer products (40 CFR 59, Subpt. C) Not regulated

State

Consumer products This product is regulated as an Anti-seize Lubricant (non-aerosol). This product is compliant for use in all 50 states.

VOC content (CA) 1.8 %

VOC content (OTC) 1.8 %

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s). A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 08-19-2019

Prepared by Allison Yoon

Version # 01

Disclaimer

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC's knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or CRC Industries, Inc..

Revision information

This document has undergone significant changes and should be reviewed in its entirety.

Safety Data Sheet

SKILCRAFT® Urinal Screen Kit -- Non-Para Block

SECTION 1. IDENTIFICATION

Product Identifier SKILCRAFT® Urinal Screen Kit -- Non-Para Block
Other Means of Identification 116-025
Other Identification Urinal Screen Kit - Non-Para Block
Product Family Restroom Deodorants
Recommended Use Urinal Blocks.
Restrictions on Use None known.
Manufacturer VisionCorps Susquehanna Association for the Blind and Vision Impaired, 244 North Queen Street, Lancaster, PA, 17603-3585, 717 291 5951
Emergency Phone No. VisionCorps, (717) 291-5951
SDS No. 0454

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Oral) - Category 4; Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 1; Skin sensitization - Category 1; Germ cell mutagenicity - Category 1B; Toxic to reproduction - Category 2

GHS Label Elements



Signal Word:
Danger

Hazard Statement(s):

H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H340 May cause genetic defects.
H361 Suspected of damaging fertility or the unborn child.

Precautionary Statement(s):

Prevention:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing dust, fume, gas, mist, vapours or spray.
P264 Wash hands and skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.

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P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P301 + P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P310 Immediately call a POISON CENTRE/doctor.
P321 Specific treatment (see on this label).
P330 Rinse mouth.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/container in accordance with local, regional, national and international regulations.

Other Hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers
Alcohols, C16-18, ethoxylated, solids	68439-49-6	51.71	
Sodium sulfate	7757-82-6	31.37	
Fatty acids, tallow, sodium salts	8052-48-0	12.56	
Precipitated silica	112926-00-8	1.29	
3-Octanol, 3,7-dimethyl-	78-69-3	0.49	
7-Octen-2-ol, 2-methyl-6-methylene-, dihydro deriv.	53219-21-9	0.40	
2-Phenylethanol	60-12-8	0.33	
TONALIDE	21145-77-7	0.28	
Cinnamaldehyde, alpha-hexyl-	101-86-0	0.24	
Benzenepentanol, gamma-methyl-	55066-48-3	0.14	
Live Bacterial Cultures	No CAS	<0.10	

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Skin Contact

Rinse with lukewarm, gently flowing water for 5 minutes.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open.

Ingestion

Call a Poison Centre or doctor if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

If on skin:

May cause mild irritation.

If in eyes:

May cause mild irritation.

If swallowed:

Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Immediate Medical Attention and Special Treatment

Special Instructions

Not applicable.

Medical Conditions Aggravated by Exposure

None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Chemical

Does not burn.

This product presents no unusual hazards in a fire situation.

Very toxic carbon monoxide, carbon dioxide.

Special Protective Equipment and Precautions for Fire-fighters

No special precautions are necessary.

See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

No special precautions are necessary.

Environmental Precautions

It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up

No special clean-up methods are necessary.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

No special handling precautions are necessary.

No special precautions are necessary.

Conditions for Safe Storage

Store in an area that is: temperature-controlled, dry.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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Control Parameters

	ACGIH TLV®		OSHA PEL		AIHA WEEL	
Chemical Name	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Precipitated silica	3 mg/m3		5 mg/m3			

ACGIH® = American Conference of Governmental Industrial Hygienists. TWA = Time-Weighted Average. OSHA = US Occupational Safety and Health Administration.

Appropriate Engineering Controls

The hazard potential of this product is relatively low. General ventilation is usually adequate.

Individual Protection Measures

Eye/Face Protection

Not required but it is good practice to wear safety glasses or chemical safety goggles.

Skin Protection

Not required, if used as directed.

Respiratory Protection

Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Blue. Particle Size: Not available
Odour	Fragrant (Fragrance)
Odour Threshold	Not available
pH	Not available
Melting Point/Freezing Point	Not available (melting); Not available (freezing)
Initial Boiling Point/Range	Not available
Flash Point	Not applicable
Evaporation Rate	Not applicable
Flammability (solid, gas)	Not available
Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	> 1 at 20 °C
Solubility	Not available in water; Not available (in other liquids)
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not applicable (kinematic)
Other Information	
Physical State	Solid
Molecular Formula	Not applicable
Molecular Weight	Not applicable
Bulk Density	Not available
Surface Tension	Not applicable
Critical Temperature	Not available
Electrical Conductivity	Not available

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Vapour Pressure at 50 deg C Not available
Saturated Vapour Concentration Not available

SECTION 10. STABILITY AND REACTIVITY

Reactivity

None known.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None known.

Conditions to Avoid

None known.

Incompatible Materials

None known.

Hazardous Decomposition Products

None known.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Skin contact; eye contact; ingestion.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Sodium sulfate		5989 mg/kg (mouse)	
Precipitated silica		> 10000 mg/kg (rat)	> 5000 mg/kg (rabbit)
TONALIDE		570 mg/kg (rat)	7940 mg/kg (rat)
2-Phenylethanol		400 mg/kg (guinea pig)	5 mg/kg (guinea pig)

Skin Corrosion/Irritation

There is limited evidence of mild irritation.

Serious Eye Damage/Irritation

There is limited evidence of mild irritation.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

No information was located.

Skin Absorption

No information was located.

Ingestion

No information was located.

Aspiration Hazard

No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

No information was located.

Respiratory and/or Skin Sensitization

No information was located.

Carcinogenicity

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Not specifically listed.
No information was located.

Reproductive Toxicity

Development of Offspring

No information was located.

Sexual Function and Fertility

No information was located.

Effects on or via Lactation

No information was located.

Germ Cell Mutagenicity

No information was located.

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

Environmental information was not located.

Persistence and Degradability

No information was located.

Bioaccumulative Potential

No information was located.

Mobility in Soil

No information was located.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Contact local environmental authorities for approved disposal or recycling methods in your jurisdiction.

SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG Regulations. Not regulated under US DOT Regulations.

Special Precautions Not applicable
for User

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

WHMIS Classification



Class D2B

D2B - Toxic

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by the Controlled Products Regulations.

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL or are not required to be listed.

CEPA - National Pollutant Release Inventory (NPRI)

Part 1A. (Poly(oxy-1,2-ethanediyl)-, alpha-(4-nonylphenyl)-omega-hydroxy-, branched)

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.

Additional USA Regulatory Lists

Massachusetts Right To Know: DiPhenyl Ether (CAS 101-84-8) Diethyl Phthalate (CAS 84-66-2)

New Jersey Right To Know: DiPhenyl Ether (CAS 101-84-8) Diethyl Phthalate (CAS 84-66-2)

Pennsylvania Right To Know: DiPhenyl Ether (CAS 101-84-8) Diethyl Phthalate (CAS 84-66-2)

Rhode Island Right To Know: Diethyl Phthalate (CAS 84-66-2).

SECTION 16. OTHER INFORMATION

NFPA Rating Health - 1 Flammability - 0 Instability - 0

SDS Prepared By Wayne Hegstrom

Phone No. 405 682 2541

Date of Preparation April 13, 2015

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SAFETY DATA SHEET

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200.

Section 1: Product and Company Identification

Product Name:	Radnor Nozzle Gel
Product Identifier:	Nozzle Gel
Product Use:	Prevents Spatter Build Up in Welding Operations
Item Code(s):	64000120, 64000122
SDS Code:	006R
Supplier:	Radnor
Physical Address:	259 North Radnor - Chester Road - Suite 100 Radnor, PA, 19087-5283
Emergency Phone:	866-734-3438
Date of Preparation:	March 21, 2019
OSHA Regulatory Status:	Non-Regulated
WHMIS Classification:	Not a Controlled Product

Section 2: Hazards Identification

Emergency Overview

PHYSICAL STATE: Solid. (Waxy solid.)

COLOR: Colorless. White.

ODOR: Hydrocarbon.

HAZARDS STATEMENTS: NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.

OSHA/HCS STATUS: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

ROUTES OF ENTRY: Eyes, Skin, Ingestion, Inhalation.

Potential Acute Health Effects

INHALATION: No known significant effects or critical hazards.

INGESTION: No known significant effects or critical hazards.

SKIN: No known significant effects or critical hazards.

EYES: No known significant effects or critical hazards.

See toxicological information (Section 11)

Section 3: Composition and Information on Ingredients

Name	CAS Number	% By Weight
Petrolatum	8009-03-8	99-100

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Section 4: First Aid Measures

EYE CONTACT: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.

SKIN CONTACT: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.

INHALATION: Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms occur.

INGESTION: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

PROTECTION OF FIRST-AIDERS: No action shall be taken involving any personal risk or without suitable training.

Section 5: Fire Fighting Measures

FLAMMABILITY OF THE PRODUCT: No specific fire or explosion hazard.

EXTINGUISHING MEDIA

SUITABLE: Use an extinguishing agent suitable for the surrounding fire.

NOT SUITABLE: None known.

SPECIAL EXPOSURE HAZARDS: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

HAZARDOUS THERMAL DECOMPOSITION PRODUCTS: Decomposition products may include the following materials: carbon dioxide carbon monoxide

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS: Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in a positive pressure mode.

Section 6: Accidental Release Measures

PERSONAL PRECAUTIONS: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment (see Section 8).

ENVIRONMENTAL PRECAUTIONS: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

METHODS FOR CLEANING UP

SMALL SPILL: Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

LARGE SPILL: Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: See Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7: Handling and Storage

HANDLING: Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas.

STORAGE: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8: Exposure Controls / Personal Protection

Consult local authorities for acceptable exposure limits.

RECOMMENDED MONITORING PROCEDURES: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

ENGINEERING MEASURES: No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

HYGIENE MEASURES: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protection

RESPIRATORY: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

HANDS: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

EYES: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

SKIN: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

ENVIRONMENTAL EXPOSURE CONTROLS: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Section 9: Physical and Chemical Properties

<u>PHYSICAL STATE:</u>	Solid. (Waxy solid.)
<u>FLASH POINT:</u>	Closed cup: 182 to 221°C (359.6 to 429.8°F) Open cup: >200°C (>392°F) (Cleveland)
<u>AUTO-IGNITION TEMPERATURE:</u>	>290°C (>554°F)
<u>FLAMMABLE LIMITS:</u>	Lower: 0.9% Upper: 7%
<u>COLOR:</u>	Colorless. White.
<u>ODOR:</u>	Hydrocarbon.
<u>BOILING/CONDENSATION POINT:</u>	302°C (575.6°F)
<u>MELTING/FREEZING POINT:</u>	55.2°C (131.4°F)
<u>RELATIVE DENSITY:</u>	0.844
<u>VAPOR PRESSURE:</u>	<0.0013 kPa (<0.00975 mm Hg) (room temperature)
<u>VISCOOSITY:</u>	Kinematic (40°C (104°F)): >0.25 cm²/s (>25 cSt)
<u>SOLUBILITY:</u>	Insoluble in the following materials: cold water and hot water.
<u>API GRAVITY @60°F:</u>	31.1
<u>IP346%:</u>	<3%

Section 10: Stability and Reactivity

CHEMICAL STABILITY: The product is stable.

CONDITIONS TO AVOID: No specific data.

INCOMPATIBLE MATERIALS: No specific data.

HAZARDOUS DECOMPOSITION PRODUCTS: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

POSSIBILITY OF HAZARDOUS REACTIONS: Under normal conditions of storage and use, hazardous reactions will not occur.

Section 11: Toxicological Information

ACUTE TOXICITY

Product/Ingredient Name	Result	Species	Dose	Exposure
Petrolatum	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

CHRONIC TOXICITY: Not available.

CARCINOGENICITY: The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3% DMSO extract as measured by IP 346.

MUTAGENICITY: Not available.

TERATOGENICITY: Not available.

REPRODUCTIVE TOXICITY: Not available.

Section 12: Ecological Information

ECOTOXICITY: This product shows a high bioaccumulation potential.

AQUATIC ECOTOXICITY: Not available.

PERSISTENCE/DEGRADABILITY: Not available.

PARTITION COEFFICIENT: n-octanol/water: 6

BIOCONCENTRATION FACTOR: Not available.

Section 13: Disposal Considerations

WASTE DISPOSAL: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

RCRA CLASSIFICATION: Not Regulated

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14: Transportation Information

Regulatory Information	UN Number	Proper Shipping Name	Classes	PG*	Label	Additional Information
DOT Classification	Not Regulated	-	-	-		Remarks May ship as HOT using UN3257, Elevated Temperature Liquid, n.o.s. (Petrolatum), 9, PGIII
IMDG Class	Not Regulated	-	-	-	-	-
IATA-DGR Class	Not Regulated	-	-	-	-	-

PG*: Packing Group

Section 15: Regulatory Information

HCS CLASSIFICATION: Not Regulated.

U.S. FEDERAL REGULATIONS:

TSCA 8(a) CDR Exempt/Partial Exemption: This material is listed or exempted.

United States Inventory (TSCA 8b): This material is listed or exempted.

SARA 302/304: No products were found.

SARA 311/312 Hazards Identification: Not regulated.

CLEAN AIR ACT SECTION 112 (b) HAZARDOUS AIR POLLUTANTS (HAPS): Not listed.

CLEAN AIR ACT SECTION 602 CLASS I & II SUBSTANCES: Not listed.

DEA LIST I CHEMICALS (PRECURSOR CHEMICALS): Not listed.

DEA LIST II CHEMICALS (ESSENTIAL CHEMICALS): Not listed.

State Regulations

MASSACHUSETTS: This material is not listed.

NEW YORK: This material is not listed.

NEW JERSEY: This material is not listed.

PENNSYLVANIA: This material is not listed.

CALIFORNIA PROP. 65: This product is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

Canada

WHMIS (CANADA): Not controlled under WHMIS (Canada)

Canadian Lists

CANADIAN NPRI: This material is not listed.

CEPA TOXIC SUBSTANCES: This material is not listed.

CANADA INVENTORY (DSL): This material is listed or exempted.

International Regulations

International Lists

AUSTRALIA INVENTORY (AICS): This material is listed or exempted.

CHINA INVENTORY (IECSC): This material is listed or exempted.

JAPAN INVENTORY: Not determined.

KOREA INVENTORY: This material is listed or exempted.

MALAYSIA INVENTORY (EHS REGISTER): Not determined.

NEW ZEALAND INVENTORY OF CHEMICALS (NZIoC): This material is listed or exempted.

PHILIPPINES INVENTORY (PICCS): This material is listed or exempted.

TAIWAN INVENTORY (CSNN): Not determined.

EUROPE INVENTORY (EINECS): This material is listed or exempted.

CHEMICAL WEAPONS CONVENTION LIST SCHEDULE I CHEMICALS: Not listed.

CHEMICAL WEAPONS CONVENTION LIST SCHEDULE II CHEMICALS: Not listed.

CHEMICAL WEAPONS CONVENTION LIST SCHEDULE III CHEMICALS: Not listed.

Section 16: Other Information

LABEL REQUIREMENTS: NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.

HAZARDOUS MATERIAL INFORMATION SYSTEM (U.S.A.) (HMIS):

Health 10 | Flammability 11 | Physical Hazards 10

CAUTION: HMIS® ratings are based on a 0 - 4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

This SDS format meets ANSI Z400.1-1998, OSHA 1910.1200 and WHMIS requirements. Radnor provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Product use and conditions of use are beyond the control of Radnor. Warranty of materials is limited to test results of product performance as detailed in certificates of compliance. Interpretation of test results is the responsibility of end-user. No other warranties, expressed or implied, are made.



SAFETY DATA SHEET

SPECIALTY OVEN CLEANER

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : SPECIALTY OVEN CLEANER
Other means of identification : Not applicable
Recommended use : Degreaser
Restrictions on use : Reserved for industrial and professional use.
Product dilution information : 50.0 %

Company : Ecolab Inc.
1 Ecolab Place
St. Paul, Minnesota USA 55102
1-800-352-5326

Emergency health information : 1-800-328-0026 (US/Canada), 1-651-222-5352 (outside US)

Issuing date : 06/13/2019

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Product AS SOLD

Eye irritation : Category 2B

Product AT USE DILUTION

Eye irritation : Category 2B

GHS label elements

Product AS SOLD

Signal Word : Warning

Hazard Statements : Causes eye irritation.

Precautionary Statements

: **Prevention:**

Wash skin thoroughly after handling.

Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/ attention.

Product AT USE DILUTION

Signal Word : Warning

Hazard Statements : Causes eye irritation.

Precautionary Statements

: **Prevention:**

Wash skin thoroughly after handling.

Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/ attention.

SAFETY DATA SHEET

SPECIALTY OVEN CLEANER

Product AS SOLD

Other hazards : None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Product AS SOLD

Pure substance/mixture : Mixture

Chemical name	CAS-No.	Concentration (%)
Sodium Xylenesulfonate	1300-72-7	5 - 10
ethylenediamine tetraacetate	64-02-8	5 - 10
Sodium Carbonate	497-19-8	5 - 10
Alcohols, C9-11, ethoxylated	68439-46-3	1 - 5
alcohols, c10-14, ethoxylated	66455-15-0	1 - 5
Sodium hydroxide	1310-73-2	0.1 - 1

Product AT USE DILUTION

Chemical name	CAS-No.	Concentration (%)
Sodium Xylenesulfonate	1300-72-7	1 - 5
ethylenediamine tetraacetate	64-02-8	1 - 5
Sodium Carbonate	497-19-8	1 - 5
alcohols, c10-14, ethoxylated	66455-15-0	1 - 5
Alcohols, C9-11, ethoxylated	68439-46-3	1 - 5

SECTION 4. FIRST AID MEASURES

Product AS SOLD

In case of eye contact	: Rinse with plenty of water.
In case of skin contact	: Rinse with plenty of water.
If swallowed	: Rinse mouth. Get medical attention if symptoms occur.
If inhaled	: Get medical attention if symptoms occur.
Protection of first-aiders	: No special precautions are necessary for first aid responders.
Notes to physician	: Treat symptomatically.
Most important symptoms and effects, both acute and delayed	: See Section 11 for more detailed information on health effects and symptoms.

Product AT USE DILUTION

In case of eye contact	: Rinse with plenty of water.
In case of skin contact	: Rinse with plenty of water.
If swallowed	: Rinse mouth. Get medical attention if symptoms occur.
If inhaled	: Get medical attention if symptoms occur.

SECTION 5. FIRE-FIGHTING MEASURES

Product AS SOLD

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SAFETY DATA SHEET

SPECIALTY OVEN CLEANER

Unsuitable extinguishing media	: None known.
Specific hazards during fire fighting	: Not flammable or combustible.
Hazardous combustion products	: Decomposition products may include the following materials: Carbon oxides Nitrogen oxides (NOx) Sulfur oxides
Special protective equipment for fire-fighters	: Use personal protective equipment.
Specific extinguishing methods	: Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Product AS SOLD

Personal precautions, protective equipment and emergency procedures	: Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
Environmental precautions	: Do not allow contact with soil, surface or ground water.
Methods and materials for containment and cleaning up	: Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

Product AT USE DILUTION

Personal precautions, protective equipment and emergency procedures	: Refer to protective measures listed in sections 7 and 8.
Environmental precautions	: Do not allow contact with soil, surface or ground water.
Methods and materials for containment and cleaning up	: Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

SECTION 7. HANDLING AND STORAGE

Product AS SOLD

Advice on safe handling	: Wash hands thoroughly after handling.
Conditions for safe storage	: Do not store near acids. Keep out of reach of children. Store in suitable labeled containers.
Storage temperature	: 0 °C to 50 °C

Product AT USE DILUTION

SAFETY DATA SHEET

SPECIALTY OVEN CLEANER

Advice on safe handling	: Wash hands thoroughly after handling.
Conditions for safe storage	: Do not store near acids. Keep out of reach of children. Store in suitable labeled containers.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Product AS SOLD

Ingredients with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
sodium hydroxide	1310-73-2	Ceiling	2 mg/m3	ACGIH
		Ceiling	2 mg/m3	NIOSH REL
		TWA	2 mg/m3	OSHA Z1

Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal protective equipment

Eye protection	: No special protective equipment required.
Hand protection	: No special protective equipment required.
Skin protection	: No special protective equipment required.
Respiratory protection	: No personal respiratory protective equipment normally required.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety practice.

Product AT USE DILUTION

Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal protective equipment

Eye protection	: No special protective equipment required.
Hand protection	: No special protective equipment required.
Skin protection	: No special protective equipment required.
Respiratory protection	: No personal respiratory protective equipment normally required.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

	Product AS SOLD	Product AT USE DILUTION
Appearance	: liquid	liquid
Color	: clear, purple	purple
Odor	: citrus	citrus
pH	: 12.2, (100 %)	12.01
Flash point	: Not applicable, Does not sustain combustion.	
Odor Threshold	: No data available	

SAFETY DATA SHEET

SPECIALTY OVEN CLEANER

Melting point/freezing point	: No data available
Initial boiling point and boiling range	: No data available
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapor pressure	: No data available
Relative vapor density	: No data available
Relative density	: 1.12 - 1.15
Water solubility	: soluble
Solubility in other solvents	: No data available
Partition coefficient: n- octanol/water	: No data available
Autoignition temperature	: No data available
Thermal decomposition	: No data available
Viscosity, kinematic	: No data available
Explosive properties	: No data available
Oxidizing properties	: The substance or mixture is not classified as oxidizing.
Molecular weight	: No data available
VOC	: No data available

SECTION 10. STABILITY AND REACTIVITY

Product AS SOLD

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: None known.
Incompatible materials	: Acids Strong acids
Hazardous decomposition products	: In case of fire hazardous decomposition products may be produced such as: Carbon oxides Nitrogen oxides (NOx) Sulfur oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

Potential Health Effects

SAFETY DATA SHEET

SPECIALTY OVEN CLEANER

Product AS SOLD

Eyes	: Causes eye irritation.
Skin	: Health injuries are not known or expected under normal use.
Ingestion	: Health injuries are not known or expected under normal use.
Inhalation	: Health injuries are not known or expected under normal use.
Chronic Exposure	: Health injuries are not known or expected under normal use.

Product AT USE DILUTION

Eyes	: Causes eye irritation.
Skin	: Health injuries are not known or expected under normal use.
Ingestion	: Health injuries are not known or expected under normal use.
Inhalation	: Health injuries are not known or expected under normal use.
Chronic Exposure	: Health injuries are not known or expected under normal use.

Experience with human exposure

Product AS SOLD

Eye contact	: Redness, Irritation
Skin contact	: No symptoms known or expected.
Ingestion	: No symptoms known or expected.
Inhalation	: No symptoms known or expected.

Product AT USE DILUTION

Eye contact	: Redness, Irritation
Skin contact	: No symptoms known or expected.
Ingestion	: No symptoms known or expected.
Inhalation	: No symptoms known or expected.

Toxicity

Product AS SOLD

Product

Acute oral toxicity	: Acute toxicity estimate : > 5,000 mg/kg
Acute inhalation toxicity	: No data available
Acute dermal toxicity	: Acute toxicity estimate : > 5,000 mg/kg
Skin corrosion/irritation	: No skin irritation
Serious eye damage/eye irritation	: Mild eye irritation
Respiratory or skin sensitization	: No data available
Carcinogenicity	: No data available
Reproductive effects	: No data available

SAFETY DATA SHEET

SPECIALTY OVEN CLEANER

Germ cell mutagenicity	: No data available
Teratogenicity	: No data available
STOT-single exposure	: No data available
STOT-repeated exposure	: No data available
Aspiration toxicity	: No data available

SECTION 12. ECOLOGICAL INFORMATION

Product AS SOLD

Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.

Product

Toxicity to fish : No data available

Toxicity to daphnia and other aquatic invertebrates : No data available

Toxicity to algae : No data available

Components

Toxicity to fish : ethylenediamine tetraacetate
96 h LC50 Fish: 121 mg/l

Sodium Carbonate
96 h LC50 Lepomis macrochirus (Bluegill sunfish): 300 mg/l

Alcohols, C9-11, ethoxylated
96 h LC50 Oncorhynchus mykiss (rainbow trout): 5 mg/l

alcohols, c10-14, ethoxylated
96 h LC50 Fish: 1.125 mg/l

Components

Toxicity to daphnia and other aquatic invertebrates : Sodium Carbonate
48 h EC50 Ceriodaphnia (water flea): 213.5 mg/l

Alcohols, C9-11, ethoxylated
48 h EC50 Daphnia magna (Water flea): 2.5 mg/l

Sodium hydroxide
48 h EC50: 40 mg/l

Components

Toxicity to algae : Sodium Xylenesulfonate
96 h EC50: 230 mg/l

Alcohols, C9-11, ethoxylated
96 h EC50 Pseudokirchneriella subcapitata (algae): 1.4 mg/l

Persistence and degradability

Product AS SOLD

Poorly biodegradable

Product AT USE DILUTION

SAFETY DATA SHEET

SPECIALTY OVEN CLEANER

Poorly biodegradable

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Product AS SOLD

Disposal methods

: Do not contaminate ponds, waterways or ditches with chemical or used container. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations

: Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not reuse empty containers. Dispose of in accordance with local, state, and federal regulations.

RCRA - Resource Conservation and Recovery Authorization Act Hazardous waste

: D002 (Corrosive)

Product AT USE DILUTION

Disposal methods

: Diluted product can be flushed to sanitary sewer.

Disposal considerations

: Dispose of in accordance with local, state, and federal regulations.

SECTION 14. TRANSPORT INFORMATION

Product AS SOLD

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (DOT)

Not dangerous goods

Sea transport (IMDG/IMO)

Not dangerous goods

SECTION 15. REGULATORY INFORMATION

Product AS SOLD

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

SAFETY DATA SHEET

SPECIALTY OVEN CLEANER

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sodium hydroxide	1310-73-2	1000	147318

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Serious eye damage or eye irritation

SARA 302 : This material does not contain any components with a section 302 EHS TPQ.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

California Cleaning Product Right to Know Act of 2017 (SB 258)

This regulation applies to this product.

Chemical Name	CAS-No.	Function	List(s)
water	7732-18-5	Diluent	Not Applicable
Sodium Xylenesulfonate	1300-72-7	Cleaning Agent	Not Applicable
ethylenediamine tetraacetate	64-02-8	Cleaning Agent	Not Applicable
Sodium Carbonate	497-19-8	Cleaning Agent	Not Applicable
Alcohols, C9-11, ethoxylated	68439-46-3	Cleaning Agent	Not Applicable
alcohols, c10-14, ethoxylated	66455-15-0	Cleaning Agent	Not Applicable
Inorganic salt	Withheld	Cleaning Agent	Not Applicable
Sodium hydroxide	1310-73-2	Cleaning Agent	20
Silicon oxide derivative	Withheld	Film Former	Not Applicable
Limonene	5989-27-5	Fragrance	FRA
Fragrance Ingredient(s)	Not Available	Fragrance	Not Applicable
Colorant	Withheld	Dye	Not Applicable
Colorant	Withheld	Dye	Not Applicable

*refer to ecolab.com/sds for electronic links to designated lists

The ingredients of this product are reported in the following inventories:

Switzerland. New notified substances and declared preparations :

On the inventory, or in compliance with the inventory

United States TSCA Inventory :

On the inventory, or in compliance with the inventory

Canadian Domestic Substances List (DSL) :

All components of this product are on the Canadian DSL

New Zealand. Inventory of Chemical Substances :

On the inventory, or in compliance with the inventory

Australia Inventory of Chemical Substances (AICS) :

On the inventory, or in compliance with the inventory

Japan. ENCS - Existing and New Chemical Substances Inventory :

SAFETY DATA SHEET

SPECIALTY OVEN CLEANER

On the inventory, or in compliance with the inventory

Korea. Korean Existing Chemicals Inventory (KECI) :

On the inventory, or in compliance with the inventory

Philippines Inventory of Chemicals and Chemical Substances (PICCS) :

On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances in China (IECSC) :

On the inventory, or in compliance with the inventory

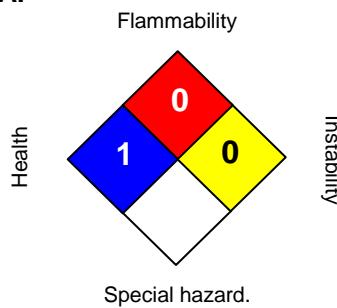
Taiwan Chemical Substance Inventory (TCSI) :

not determined

SECTION 16. OTHER INFORMATION

Product AS SOLD

NFPA:



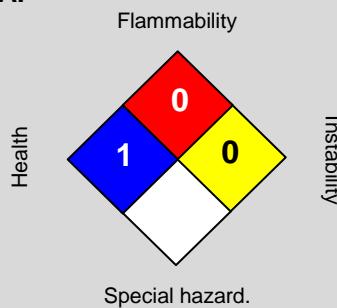
HMIS III:

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Product AT USE DILUTION

NFPA:



HMIS III:

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Issuing date

: 06/13/2019

Version

: 1.1

Prepared by

: Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific

SAFETY DATA SHEET**SPECIALTY OVEN CLEANER**

material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



B'LASTER PB PENETRATING GREASE

Conforms to HCS 2012 - United States

SAFETY DATA SHEET

Section 1. Identification

Product identifier(s)/ : B'LASTER PENETRATING GREASE

Other means of identification : Part No. GR-14C-PB, GR-8J-PB, GR-3T-PB

Company : B'laster Corporation
8500 Sweet Valeey Drive

Identification: : Valley View, OH 44125
(800) 858-6605 / (216) 901-5800
fax (216) 901-5801
www.blastercorp.com

Emergency telephone : ChemTel: (800) 255-3924

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

SKIN SENSITIZATION - Category 1

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous system (CNS)) - Category 1

AQUATIC HAZARD (ACUTE) - Category 3

AQUATIC HAZARD (LONG-TERM) - Category 3

Classification of the substance or mixture



Signal word

: Danger

GHS label elements

Hazard pictograms

Hazard statements : H317 - May cause an allergic skin reaction.

H372 - Causes damage to organs through prolonged or repeated exposure. (central nervous system (CNS))

H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements



B'LASTER PB PENETRATING GREASE

Section 2. Hazards identification

Prevention	: P280 - Wear protective gloves. P273 - Avoid release to the environment. P260 - Do not breathe dust. P270 - Do not eat, drink or smoke when using this product. P264 - Wash hands thoroughly after handling. P272 (OSHA) - Contaminated work clothing must not be allowed out of the workplace.
Response	: P314 - Get medical attention if you feel unwell. P302 + P352 + P363 - IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. P333 + P313 - If skin irritation or rash occurs: Get medical attention.
Storage	: Not applicable.
Disposal	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazards not otherwise classified	: None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

CAS number/other identifiers

CAS number	: Not applicable.
Product code	: 59300

Ingredient name	%	CAS number
Distillates (petroleum), hydrotreated light	≥10 - ≤16	64742-47-8
Distillates (petroleum), hydrotreated heavy naphthenic	≥5 - ≤10	64742-52-5
Solvent Naphtha (Petroleum), Heavy Arom.	≥5 - ≤10	64742-94-5
4-Ethyl-o-xylene	≥1 - ≤3	934-80-5
1,2,3,5-Tetramethylbenzene	≥1 - ≤3	527-53-7
5-Ethyl-m-xylene	≥0.3 - <1	934-74-7
Naphthalene	≥0.3 - ≤0.73	91-20-3
4-Propyltoluene	≤0.3	1074-55-1
2-Methylnaphthalene	≤0.14	91-57-6

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention following exposure or if feeling unwell.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention following exposure or if feeling unwell. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	: Wash with plenty of soap and water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 20 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.



B'LASTER PB PENETRATING GREASE

Section 4. First aid measures

Ingestion

: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention following exposure or if feeling unwell. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- | | |
|---------------------|---|
| Eye contact | : No known significant effects or critical hazards. |
| Inhalation | : No known significant effects or critical hazards. |
| Skin contact | : May cause an allergic skin reaction. |
| Ingestion | : No known significant effects or critical hazards. |

Over-exposure signs/symptoms

- | | |
|---------------------|--|
| Eye contact | : No known significant effects or critical hazards. |
| Inhalation | : No known significant effects or critical hazards. |
| Skin contact | : Adverse symptoms may include the following:
irritation
redness |
| Ingestion | : No known significant effects or critical hazards. |

Indication of immediate medical attention and special treatment needed, if necessary

- | | |
|-----------------------------------|---|
| Notes to physician | : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| Specific treatments | : No specific treatment. |
| Protection of first-aiders | : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. |

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- | | |
|-------------------------------------|--|
| Suitable extinguishing media | : Use dry chemical, carbon dioxide, water spray (fog) or foam. |
|-------------------------------------|--|

- | | |
|---------------------------------------|---------------|
| Unsuitable extinguishing media | : None known. |
|---------------------------------------|---------------|

- | | |
|---|---|
| Specific hazards arising from the chemical | : This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. |
|---|---|

- | | |
|---|---|
| Hazardous thermal decomposition products | : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
halogenated compounds
metal oxide/oxides |
|---|---|

B'LASTER PB PENETRATING GREASE

Section 5. Fire-fighting measures

Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
Methods and materials for containment and cleaning up	
Small spill	: Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
Large spill	: Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures. Remove contaminated clothing and protective equipment before entering eating areas.

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Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Distillates (petroleum), hydrotreated light	ACGIH TLV (United States, 3/2017). Absorbed through skin. TWA: 200 mg/m ³ , (as total hydrocarbon vapor) 8 hours.
Distillates (petroleum), hydrotreated heavy naphthenic	OSHA PEL (United States, 6/2016). TWA: 5 mg/m ³ 8 hours. ACGIH TLV (United States, 3/2017). TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction NIOSH REL (United States, 10/2016). TWA: 5 mg/m ³ 10 hours. Form: Mist STEL: 10 mg/m ³ 15 minutes. Form: Mist
Solvent Naphtha (Petroleum), Heavy Arom. 4-Ethyl-o-xylene 1,2,3,5-Tetramethylbenzene 5-Ethyl-m-xylene Naphthalene	None. None. None. None. ACGIH TLV (United States, 3/2017). Absorbed through skin. TWA: 10 ppm 8 hours. TWA: 52 mg/m ³ 8 hours. NIOSH REL (United States, 10/2016). TWA: 10 ppm 10 hours. TWA: 50 mg/m ³ 10 hours. STEL: 15 ppm 15 minutes. STEL: 75 mg/m ³ 15 minutes. OSHA PEL (United States, 6/2016). TWA: 10 ppm 8 hours. TWA: 50 mg/m ³ 8 hours.
4-Propyltoluene 2-Methylnaphthalene	None. NIOSH REL (United States, 10/2016). TWA: 0.1 mg/m ³ 10 hours. OSHA PEL (United States, 6/2016). TWA: 0.2 mg/m ³ 8 hours. Form: Benzene soluble ACGIH TLV (United States, 3/2017). Absorbed through skin. TWA: 0.5 ppm 8 hours.

Appropriate engineering controls

: If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

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Section 8. Exposure controls/personal protection

Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
Skin protection	
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state	: Solid. [Semi-solid.]
Color	: Amber.
Odor	: Mild.
Odor threshold	: Not available.
pH	: Not available.
Melting point	: Not available.
Boiling point	: Not available.
Flash point	: Open cup: 173.89°C (345°F) [Cleveland.]
Evaporation rate	: Not available.
Flammability (solid, gas)	: Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge.
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: 0.926 g/ml
Solubility	: Insoluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Not available.

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Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Do not heat above flash point.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Distillates (petroleum), hydrotreated heavy naphthenic	LD50 Oral	Rat	>5000 mg/kg	-
1,2,3,5-Tetramethylbenzene			5157 mg/kg	-
Naphthalene	LD50 Dermal	Rabbit	>20 g/kg	-
2-Methylnaphthalene	LD50 Oral	Rat	490 mg/kg	-
	LD50 Oral	Rat	1630 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Solvent Naphtha (Petroleum), Heavy Arom.	Skin - Mild irritant	Rabbit	-	24 hours 500 µl	-
1,2,3,5-Tetramethylbenzene	Skin - Mild irritant	Rabbit	-	24 hours 100 mg	-
Naphthalene	Skin - Mild irritant	Rabbit	-	495 mg	-

Sensitization

There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity

Classification

Product/ingredient name	OSHA	IARC	NTP	ACGIH	EPA	NIOSH
Naphthalene	-	2B	Reasonably anticipated to be a human carcinogen.	A3	-	-

Reproductive toxicity

There is no data available.

Teratogenicity

There is no data available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
4-Ethyl-o-xylene	Category 3	Not applicable.	Respiratory tract irritation

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Section 11. Toxicological information

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
4-Ethyl-o-xylene	Category 1	Not determined	central nervous system (CNS)

Aspiration hazard

Name	Result
Distillates (petroleum), hydrotreated light	ASPIRATION HAZARD - Category 1
Distillates (petroleum), hydrotreated heavy naphthenic	ASPIRATION HAZARD - Category 1
Solvent Naphtha (Petroleum), Heavy Arom.	ASPIRATION HAZARD - Category 1
4-Ethyl-o-xylene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Ingestion.

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : Adverse symptoms may include the following:
 irritation
 redness
Ingestion : No known significant effects or critical hazards.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : No known significant effects or critical hazards.
Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

- Potential immediate effects** : No known significant effects or critical hazards.
Potential delayed effects : No known significant effects or critical hazards.

Potential chronic health effects

- General** : Causes damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity



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Section 11. Toxicological information

Acute toxicity estimates

Route	ATE value
Oral	55990.3 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Distillates (petroleum), hydrotreated light	Acute LC50 2200 µg/L Fresh water	Fish - Lepomis macrochirus	4 days
Naphthalene	Acute EC50 1600 µg/L Fresh water Acute LC50 2350 µg/L Marine water Acute LC50 213 µg/L Fresh water Chronic NOEC 0.5 mg/L Marine water Chronic NOEC 1.5 mg/L Fresh water	Daphnia - Daphnia magna - Neonate Crustaceans - Palaemonetes pugio Fish - Melanotaenia fluviatilis - Larvae Crustaceans - Uca pugnax - Adult Fish - Oreochromis mossambicus	48 hours 48 hours 96 hours 3 weeks 60 days

Persistence and degradability

There is no data available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Solvent Naphtha (Petroleum), Heavy Arom.	2.8 to 6.5	99 to 5780	high
4-Ethyl-o-xylene	4.5	-	high
1,2,3,5-Tetramethylbenzene	4.1	-	high
5-Ethyl-m-xylene	4.55	-	high
Naphthalene	3.4	36.5 to 168	low
4-Propyltoluene	4.6	-	high
2-Methylnaphthalene	3.86	74.13	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

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Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	UN3077	Not regulated.	Not regulated.
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Naphthalene)	-	-
Transport hazard class(es)	9	-	-
Packing group	III	-	-
Environmental hazards	Yes.	No.	No.
Additional information	Non-bulk packages of this product are not regulated as hazardous materials in package sizes less than the product reportable quantity, unless transported by inland waterway. The marine pollutant mark is not required when transported on inland waterways in sizes of ≤5 L or ≤5 kg. Reportable quantity 20000 lbs / 9080 kg. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.	-	The environmentally hazardous substance mark may appear if required by other transportation regulations.

AERG : 171

DOT-RQ Details : Naphthalene 100 lbs / 45.4 kg

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

U.S. Federal regulations	: TSCA 12(b) one-time export: None of the components are listed. TSCA 12(b) annual export notification: None of the components are listed. United States inventory (TSCA 8b): All components are listed or exempted. Clean Water Act (CWA) 307: Naphthalene; 2-Methylnaphthalene; Antimony dialkyldithiocarbamate Clean Water Act (CWA) 311: Naphthalene
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	: Listed
Clean Air Act Section 602 Class I Substances	: Not listed
Clean Air Act Section 602 Class II Substances	: Not listed



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Section 15. Regulatory information

**DEA List I Chemicals
(Precursor Chemicals)** : Not listed

**DEA List II Chemicals
(Essential Chemicals)** : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/information on ingredients

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Distillates (petroleum), hydrotreated light	Yes.	No.	No.	No.	No.
4-Ethyl-o-xylene	Yes.	No.	No.	Yes.	Yes.
1,2,3,5-Tetramethylbenzene	No.	No.	No.	Yes.	No.
5-Ethyl-m-xylene	No.	No.	No.	Yes.	No.
Naphthalene	Yes.	No.	No.	Yes.	Yes.
4-Propyltoluene	No.	No.	No.	Yes.	No.
2-Methylnaphthalene	No.	No.	No.	Yes.	No.

SARA 313

	Product name	CAS number
Form R - Reporting requirements	Naphthalene	91-20-3
Supplier notification	Naphthalene	91-20-3

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: Distillates (petroleum), hydrotreated heavy paraffinic; Distillates (petroleum), solvent-dewaxed heavy paraffinic; Distillates (petroleum), hydrotreated heavy naphthenic; Residual oils (petroleum), solvent-dewaxed; Distillates (petroleum), hydrotreated heavy naphthenic

New York : The following components are listed: Naphthalene

New Jersey : The following components are listed: Distillates (petroleum), hydrotreated heavy paraffinic; Distillates (petroleum), solvent-dewaxed heavy paraffinic; Distillates (petroleum), hydrotreated heavy naphthenic; Naphthalene; Residual oils (petroleum), solvent-dewaxed; Distillates (petroleum), hydrotreated heavy naphthenic

Pennsylvania : The following components are listed: Naphthalene

California Prop. 65

WARNING: This product contains less than 0.1% of a chemical known to the State of California to cause cancer.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Naphthalene	Yes.	No.	Yes.	-

International lists



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Section 15. Regulatory information

National inventory

Canada	: At least one component is not listed in DSL but all such components are listed in NDSL.
Taiwan	: All components are listed or exempted.
Petroleum components contained in this product meet the IP 346 criteria of less than 3 percent DMSO-extractable components.	

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 1 * Flammability : 1 Physical hazards : 1

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Health : 1 Flammability : 1 Instability : 1

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
SKIN SENSITIZATION - Category 1	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous system (CNS)) - Category 1	Calculation method
AQUATIC HAZARD (ACUTE) - Category 3	Calculation method
AQUATIC HAZARD (LONG-TERM) - Category 3	Calculation method

History

Date of issue mm/dd/yyyy : 09/30/2017

Version : 1

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Safety Data Sheet



NON-Hazardous, NON-Dangerous Goods

1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: PEAK AD BLUE DIESEL EXHAUST FLUID

Synonyms

PEAK AD BLUE DIESEL EXHAUST FLUID, 10 Litres
PEAK AD BLUE DIESEL EXHAUST FLUID, 20 Litres
PEAK AD BLUE DIESEL EXHAUST FLUID, 200 Litres
PEAK AD BLUE DIESEL EXHAUST FLUID, 1000 Litres

Product Code

PKADDEF010
PKADDEF020
PKADDEF200
PKADDEF1000

Recommended use: Diesel Exhaust Fluid

Supplier: Peak Lubricants Pty Ltd

ABN: 74 887 410 101

Street Address: 224-230 South Gippsland Highway,
Dandenong South
Victoria 3175

Telephone: (03) 9799 0977

Emergency Telephone number: (03) 9799 0977

2. HAZARDS IDENTIFICATION

Based on available information, this material is not classified as hazardous according to criteria of Safe Work Australia GHS 7.

Poison Schedule: Not Applicable

DANGEROUS GOOD CLASSIFICATION

Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

3. COMPOSITION INFORMATION

CHEMICAL ENTITY	CAS NO	PROPORTION
Water	7732-18-5	65-70 % (w/w)
Urea	57-13-6	30-35 % (w/w)
Ingredients determined to be Non-Hazardous		Balance
		100%

4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

Inhalation: Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

Skin Contact: If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running

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water. If swelling, redness, blistering or irritation occurs seek medical assistance.

Eye contact: If in eyes wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

Ingestion: Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.

PPE for First Aiders: Wear safety shoes, overalls, gloves, safety glasses. Available information suggests that gloves made from nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Notes to physician: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Hazchem Code: Not applicable.

Suitable extinguishing media: If material is involved in a fire use water fog (or if unavailable fine water spray), alcohol resistant foam, standard foam, dry agent (carbon dioxide, dry chemical powder).

Specific hazards: Non-combustible material.

Fire fighting further advice: Not applicable.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILLS

Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours or dust. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.

LARGE SPILLS

Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

Dangerous Goods - Initial Emergency Response Guide No: Not applicable

7. HANDLING AND STORAGE

Handling: Avoid eye contact and repeated or prolonged skin contact. Avoid inhalation of vapour, mist or aerosols.

Storage: Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Store away from sources of heat and/or ignition. Keep container standing upright. Keep containers closed when not in use - check regularly for leaks.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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National occupational exposure limits: No value assigned for this specific material by Safe Work Australia.

Biological Limit Values: As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.

Engineering Measures: Natural ventilation should be adequate under normal use conditions.

Personal Protection Equipment: SAFETY SHOES, OVERALLS, GLOVES, SAFETY GLASSES.

Personal protective equipment (PPE) must be suitable for the nature of the work and any hazard associated with the work as identified by the risk assessment conducted.

Wear safety shoes, overalls, gloves, safety glasses. Available information suggests that gloves made from nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Hygiene measures: Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid eye contact and repeated or prolonged skin contact. Avoid inhalation of vapour, mist or aerosols. Ensure that eyewash stations and safety showers are close to the workstation location.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid
Colour:	Colourless
Odour:	Odourless
Specific Gravity:	N Av
Density:	1.09 g/mL @ 15°C
Relative Vapour Density (air=1):	N Av
Vapour Pressure:	N Av
Flash Point (°C):	N Av
Flammability Limits (%):	N Av
Autoignition Temperature (°C):	N Av
Melting Point/Range (°C):	N Av
Boiling Point/Range (°C):	> 280
Decomposition Point (°C):	>135
pH:	9 - 10
Viscosity:	N Av
Total VOC (g/Litre):	N Av

(Typical values only - consult specification sheet)
N Av = Not available, N App = Not applicable

10. STABILITY AND REACTIVITY

Chemical stability: This material is thermally stable when stored and used as directed.

Conditions to avoid: Elevated temperatures and sources of ignition.

Incompatible materials: Oxidising agents.

Hazardous decomposition products: Oxides of carbon and nitrogen, smoke and other toxic fumes.

Hazardous reactions: No known hazardous reactions.

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11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Acute Effects

Inhalation: Material may be an irritant to mucous membranes and respiratory tract.

Skin contact: Contact with skin may result in irritation.

Ingestion: Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract.

Eye contact: May be an eye irritant.

Acute toxicity

Inhalation: This material has been classified as not hazardous for acute inhalation exposure. Acute toxicity estimate (based on ingredients): LC₅₀ > 20.0 mg/L for vapours or LC₅₀ > 5.0 mg/L for dust and mist.

Skin contact: This material has been classified as not hazardous for acute dermal exposure. Acute toxicity estimate (based on ingredients): LD₅₀ > 2,000 mg/Kg bw

Ingestion: This material has been classified as not hazardous for acute ingestion exposure. Acute toxicity estimate (based on ingredients): LD₅₀ > 2,000 mg/Kg bw

Corrosion/Irritancy: Eye: this material has been classified as not corrosive or irritating to eyes. Skin: this material has been classified as not corrosive or irritating to skin.

Sensitisation: Inhalation: this material has been classified as not a respiratory sensitiser. Skin: this material has been classified as not a skin sensitiser.

Aspiration hazard: This material has been classified as not an aspiration hazard.

Specific target organ toxicity (single exposure): This material has been classified as not a specific hazard to target organs by a single exposure.

Chronic Toxicity

Mutagenicity: This material has been classified as not a mutagen.

Carcinogenicity: This material has been classified as not a carcinogen.

Reproductive toxicity (including via lactation): This material has been classified as not a reproductive toxicant.

Specific target organ toxicity (repeat exposure): This material has been classified as not a specific hazard to target organs by repeat exposure.

12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

Acute aquatic hazard: This material has been classified as not hazardous for acute aquatic exposure. Acute toxicity estimate (based on ingredients): > 100 mg/L



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Long-term aquatic hazard: This material has been classified as not hazardous for chronic aquatic exposure. Non-rapidly or rapidly degradable substance for which there are adequate chronic toxicity data available OR in the absence of chronic toxicity data, Acute toxicity estimate (based on ingredients): >100 mg/L, where the substance is not rapidly degradable and/or BCF < 500 and/or log K_{ow} < 4.

Ecotoxicity: No information available.

Persistence and degradability: No information available.

Bioaccumulative potential: No information available.

Mobility: No information available.

13. DISPOSAL CONSIDERATIONS

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

14. TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT

Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

MARINE TRANSPORT

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

AIR TRANSPORT

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

15. REGULATORY INFORMATION

This material is not subject to the following international agreements:

Montreal Protocol (Ozone depleting substances)
The Stockholm Convention (Persistent Organic Pollutants)
The Rotterdam Convention (Prior Informed Consent)
Basel Convention (Hazardous Waste)

This material is subject to the following international agreements:

International Convention for the Prevention of Pollution from Ships (MARPOL)
• Annex II - Noxious Liquid Substances carried in Bulk

This material/constituent(s) is covered by the following requirements:

The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) established under the Therapeutic Goods Act (Commonwealth): Not Applicable.

AICIS Status: Formulations where all components are AICS listed.



Safety Data Sheet

16. OTHER INFORMATION

Reason for issue: 5 Yearly Revision

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If you are an employer it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.

Safety Data Sheets are updated frequently. Please ensure you have a current copy.



SDS 590
PRESTONE® POWER STEERING FLUID AND STOP LEAK
Date Prepared: 9/25/20

SAFETY DATA SHEET

1. Product And Company Identification

SDS ID: SDS 590
PRODUCT NAME: Prestone® Power Steering Fluid and Stop Leak
PRODUCT NUMBER: AS262/4, AS262-6/4, AS262PSP/4, AS262Y, AS263/4, AS263-6/4, AS263Y, 77497, 77497-PDQ-6, 77512
FORMULA NUMBER: 2396-61, 2488-64-1, 2488-64-2, 2482-121

MANUFACTURER: CANADIAN OFFICE:
Prestone Products
Corporation
69 Eagle Rd.
Danbury, CT 06810

Prestone Canada
33 MacIntosh Blvd.
Concord, ON L4K 4L5

MEXICO OFFICE:
ASG Operations Mexico S. de R.L. de C.V.
Carretera Mexico Cuautitlan, Kilometro 31.5, Nave
Industrial 5,
Loma Bonita, Cuautitlan, Mexico, 54800

MEDICAL EMERGENCIES AND ALL OTHER INFORMATION PHONE NUMBER:

(888)269-0750 (in the US and Canada)

01-800-715-4135 (in Mexico)

TRANSPORTATION EMERGENCY PHONE NUMBER (Chemical Spills and Transport Accidents only):

CHEMTREC 1-800-424-9300 (in the US and Canada) +1 703 741-5970 (outside the US and Canada)

PRODUCT USE: Automobile fluid – consumer product

RESTRICTIONS ON USE: None identified

2. Hazards Identification

GHS/HAZCOM 2012 Classification:

Health	Physical
Not Hazardous	Not Hazardous

Label Elements: None

3. Composition/Information On Ingredients

Component	CAS No.	Amount %
Highly Refined Petroleum Oils	Mixture	60-100
Alkoxy Sulfolane	Proprietary	0 - 5
Di-isodecyl Adipate	27178-16-1	0 - 3
Zinc Compounds	Proprietary	0 - 1
Proprietary Additive	Proprietary	<1

The exact concentrations are a trade secret.

4. First Aid Measures

INHALATION: If symptoms of exposure develop, remove to fresh air. If breathing becomes difficult, administer oxygen. Administer artificial respiration if breathing has stopped. Seek medical attention if symptoms develop.

SKIN CONTACT: Remove contaminated clothing. Wash all affected and exposed areas with soap and water. If skin irritation or redness develops and persists, seek medical attention. High pressure injection of this product through the skin is a medical emergency. This product must be removed completely from under the skin. Seek immediate medical attention.



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EYE CONTACT: Exposed eyes should be immediately flushed with copious amounts of water using a steady stream for a several minutes. If irritation, pain, swelling or tearing persist, seek medical attention.

INGESTION: DO NOT induce vomiting. Get immediate medical assistance by calling an emergency room or poison control center. If medical advice cannot be obtained, take the person and product to the nearest medical emergency treatment center or hospital. If vomiting occurs spontaneously, keep head below hips to prevent aspiration into the lungs. Never give anything by mouth to a person who is unconscious or drowsy.

MOST IMPORTANT SYMPTOMS: Upon ingestion, there is a slight risk of aspiration in the lungs which can lead to pneumonitis and non-cardiogenic pulmonary edema. Prolonged skin contact may cause irritation. Breathing high vapor concentrations may cause headache, dizziness, drowsiness or lung irritation.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT, IF NEEDED: Oil injection into the skin from high-pressure hydraulic systems may cause severe injury. Seek medical attention immediately. Surgical removal may be necessary.

NOTES TO PHYSICIAN: There is no specific antidote. The petroleum oil and other ingredients in this product are unlikely to produce systemic symptoms following accidental ingestion. Upon ingestion, there is a slight risk of aspiration in the lungs which can lead to pneumonitis and non-cardiogenic pulmonary edema. Do not induce vomiting. If aspiration is suspected the patient should be observed for sign of lung injury. Treatment should be directed at the control of symptoms and clinical conditions. Subcutaneous or intramuscular injection requires prompt surgical debridement. There may be no signs of injury or pain initially. Failure to provide immediate treatment may result in extensive necrosis.

5. Firefighting Measures

SUITABLE EXTINGUISHING MEDIA: Use water fog, foam, carbon dioxide or dry chemical. Cool fire exposed containers with water. Water or foam may cause frothing.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: This product can burn but will not readily ignite. Vapors may be released when heated above the flashpoint that can ignite when exposed to an ignition source. In enclosed spaces, heated vapor can ignite with explosive force. Mists or sprays may burn at temperatures below the flashpoint. Containers may rupture from excessive heat. Burning may produce carbon monoxide, carbon dioxide, traces oxides of sulfur, phosphorous, zinc and nitrogen.

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

6: Accidental Release Measures

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Wear appropriate protective clothing and equipment (See Section 8).

METHODS AND MATERIALS FOR CONTAINMENT/CLEANUP: Collect material with an inert absorbent material and shovel into appropriate container for disposal. For large spill, recover free product by pumping and place in appropriate, labeled container. Use caution when walking in spilled area. This product can create a slip hazard. Keep out of sewers, watercourses and low areas.

7. Handling and Storage

PRECAUTIONS FOR SAFE HANDLING: Avoid contact with the eyes. Avoid prolonged or repeated contact with skin and clothing. Avoid breathing vapors or mists. Use with adequate ventilation. Wash exposed skin with soap and water after use.

High pressure injection of this product through the skin is a medical emergency.



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Empty containers retain product residue and may be hazardous. Do not cut, weld, drill, etc. containers, even empty. Do not reuse empty containers unless properly cleaned.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES: Keep container away from excessive heat and open flames. Keep containers closed when not in use. Store in a cool, dry, well-ventilated area.

NFPA CLASSIFICATION: IIIB

8. Exposure Controls / Personal Protection

EXPOSURE GUIDELINES

CHEMICAL	EXPOSURE LIMIT
Highly Refined Petroleum Oils	5 mg/m ³ OSHA PEL 5 mg/m ³ ACGIH TLV (Inhalable)
Alkoxy Sulfolane	None Established
Di-isodecyl Adipate	None Established
Zinc Compounds	None Established
Proprietary Additive	None Established

APPROPRIATE ENGINEERING CONTROLS: None needed under normal use conditions. For operations where the exposure limit may be exceeded, forced ventilation such as local exhaust may be required.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION: None under normal use conditions. For operations where the exposure limit may be exceeded, a NIOSH approved respirator with an organic vapor cartridge and a dust/mist prefilter or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration. Select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

GLOVES: Impervious gloves such as heavy nitrile or neoprene are recommended where prolonged skin contact may occur. Use heat-resistant gloves when handling product at elevated temperatures.

EYE PROTECTION: Safety glasses or chemical splash goggles are recommended.

OTHER PROTECTIVE EQUIPMENT/CLOTHING: Appropriate protective clothing as needed to minimize skin contact. Suitable eye flushing facilities should be available in the work area. Contaminated clothing should be immediately removed and laundered before re-use.

9. Physical and Chemical Properties

APPEARANCE:	Clear amber oil	ODOR:	Petroleum odor
ODOR THRESHOLD:	None	pH:	Not determined
MELTING/FREEZING POINT:	Not determined	BOILING POINT/RANGE:	Not determined
FLASH POINT:	>255°F (124°C) COC	EVAPORATION RATE:	Not determined
FLAMMABILITY (SOLID, GAS)	Not Applicable	FLAMMABILITY LIMITS:	LEL: Not determined UEL: Not determined
VAPOR PRESSURE:	< 0.1 mm Hg @ 20°C	VAPOR DENSITY:	>1
RELATIVE DENSITY:	0.88	SOLUBILITIES	Water: Negligible
PARTITION COEFFICIENT (n-octanol/water)	>6 (based on similar products)	AUTOIGNITION TEMPERATURE:	Not determined
DECOMPOSITION TEMPERATURE:	Not determined	VISCOSITY:	42 - 50 cST @ 40°C



10. Stability and Reactivity

REACTIVITY: Normally unreactive

CHEMICAL STABILITY: Stable

POSSIBILITY OF HAZARDOUS REACTIONS: Reaction with strong oxidizers will generate heat.

CONDITIONS TO AVOID: Keep away from excessive heat and open flames.

INCOMPATIBLE MATERIALS: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion will produce carbon monoxide, carbon dioxide, traces of oxides of sulfur, phosphorous, zinc and nitrogen.

11. Toxicological Information

POTENTIAL HEALTH EFFECTS:

ACUTE HAZARDS:

INHALATION: Inhalation of the product is unlikely with normal use. Prolonged exposure to mists or vapors in a poorly ventilated areas may result in dizziness, drowsiness, headache, nausea and in extreme cases, lipid pneumonitis.

SKIN CONTACT: Prolonged contact may cause mild irritation. High pressure injection of this product through the skin may cause possible extensive tissue damage resulting in loss of a finger, hand or arm. There may be no sign of initial injury or pain.

EYE CONTACT: Direct eye contact may result in mild inflammation or irritation with redness, tearing, stinging and swelling.

INGESTION: Ingestion of this product is not expected to result in any acute systemic toxic effects. If more than several mouthfuls are swallowed, abdominal discomfort, headache, drowsiness, belching, nausea, vomiting and diarrhea may occur. If swallowed, aspiration into the lungs during ingestion or vomiting may result in lipid pneumonitis.

CHRONIC HAZARDS: Prolonged or repeated skin contact may remove skin oil, leading to possible skin irritation or dermatitis.

CARCINOGENICITY LISTING: None of the components of this product present at greater than 0.1% are listed as carcinogens by OSHA, IARC, NTP or ACGIH.

ACUTE TOXICITY VALUES:

Highly Refined Petroleum Oils: LD50 Oral Rat: >5,000 mg/kg
LD50 Dermal Rabbit: >2,000 mg/kg

12. Ecological Information

ECOTOXICITY: No data available for product.

PERSISTENCE AND DEGRADABILITY: Inherently biodegradable in aerobic conditions. Partition Coefficient (log Kow): >6 (based on similar materials)

BIOACCUMULATIVE POTENTIAL: No data available for product.

MOBILITY IN SOIL: No data available for product.



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OTHER ADVERSE EFFECTS: Analysis for ecological effects has not been conducted on this product. However, if spilled, this product and any contaminated soil or water may be harmful to human, animal, and aquatic life. Also, the coating action associated with petroleum products can be harmful or fatal to aquatic life and water fowl.

13. Disposal Considerations

Recycle, incinerate or landfill in accordance with all local, state/provincial and federal regulations.

14. Transport Information

U.S. DOT HAZARD CLASSIFICATION: Not Regulated

DOT MARINE POLLUTANTS: This product does not contain Marine Pollutants as defined in 49 CFR 171.8.

IMDG CODE SHIPPING CLASSIFICATION: Not Regulated

CANADIAN TDG CLASSIFICATION: Not Regulated

15. Regulatory Information

EPA SARA 311/312 HAZARD CLASSIFICATION: Not hazardous

EPA SARA 313: This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): Zinc Compounds <1%

PROTECTION OF STRATOSPHERIC OZONE: This product is not known to contain or to have been manufactured with ozone depleting substances as defined in 40 CFR Part 82, Appendix A to Subpart A.

CERCLA SECTION 103: This product is not subject to CERCLA reporting requirements, however, oil spills are reportable to the National Response Center under the Clean Water Act. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

CALIFORNIA PROPOSITION 65: This product does not contain chemicals regulated under California Proposition 65.

EPA TSCA INVENTORY: All of the components of this material are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES (EINECS): All of the ingredients are listed on the EINECS inventory.

AUSTRALIA: All of the ingredients of this product are listed on the Australian Inventory of Chemical Substances.

KOREA: All of the ingredients of this product are listed on the Korean Existing Chemical List (KECL).

PHILIPPINES: All of the ingredients of this product are listed on the Philippine Inventory of Chemical and Chemical Substance (PICCS)

CHINA: All of the ingredients of this product are listed on the Inventory of Existing Chemical Substance in China (IECSC).

16. Other Information

NFPA RATING (NFPA 704) - FIRE: 1

HEALTH: 1

INSTABILITY: 0



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Date Prepared: 9/25/20

REVISION SUMMARY: Section 1 Added part number

SDS Date of Preparation/Revision: September 25, 2020

While Prestone Products Corporation believes that the data contained herein are factual and the opinions expressed are those of qualified experts regarding the results of tests conducted, the data are not to be taken as a warranty or representation for which Prestone Products Corporation assumes legal responsibility. They are offered for your consideration, investigation and verification. Any use of these data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.

SAFETY DATA SHEET

Airgas[®]
an Air Liquide company

Propane

Section 1. Identification

GHS product identifier	:	Propane
Chemical name	:	propane
Other means of identification	:	Propyl hydride; n-Propane; Dimethyl methane; Bottled gas; propane in gaseous state; propane liquefied, n-Propane; Dimethylmethane; Freon 290; Liquefied petroleum gas; Lpg; Propyl hydride; R 290; C3H8; UN 1075; UN 1978; A-108; Hydrocarbon propellant.
Product type	:	Liquefied gas
Product use	:	Synthetic/Analytical chemistry.
Synonym	:	Propyl hydride; n-Propane; Dimethyl methane; Bottled gas; propane in gaseous state; propane liquefied, n-Propane; Dimethylmethane; Freon 290; Liquefied petroleum gas; Lpg; Propyl hydride; R 290; C3H8; UN 1075; UN 1978; A-108; Hydrocarbon propellant.
SDS #	:	001045
Supplier's details	:	Airgas USA, LLC and its affiliates 259 North Radnor-Chester Road Suite 100 Radnor, PA 19087-5283 1-610-687-5253
24-hour telephone	:	1-866-734-3438

Section 2. Hazards identification

OSHA/HCS status	:	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture	:	FLAMMABLE GASES - Category 1 GASES UNDER PRESSURE - Liquefied gas
GHS label elements		
Hazard pictograms	:	 
Signal word	:	Danger
Hazard statements	:	Extremely flammable gas. Contains gas under pressure; may explode if heated. May cause frostbite. May displace oxygen and cause rapid suffocation. May form explosive mixtures with air.
Precautionary statements		
General	:	Read and follow all Safety Data Sheets (SDS'S) before use. Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand. Close valve after each use and when empty. Use equipment rated for cylinder pressure. Do not open valve until connected to equipment prepared for use. Use a back flow preventative device in the piping. Use only equipment of compatible materials of construction. Always keep container in upright position. Approach suspected leak area with caution.
Prevention	:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Response	:	Leaking gas fire: Do not extinguish, unless leak can be stopped safely. In case of leakage, eliminate all ignition sources.
Storage	:	Protect from sunlight. Store in a well-ventilated place.

Section 2. Hazards identification

- Disposal** : Not applicable.
- Hazards not otherwise classified** : Liquid can cause burns similar to frostbite.

Section 3. Composition/information on ingredients

Substance/mixture	: Substance
Chemical name	: propane
Other means of identification	: Propyl hydride; n-Propane; Dimethyl methane; Bottled gas; propane in gaseous state; propane liquefied, n-Propane; Dimethylmethane; Freon 290; Liquefied petroleum gas; Lpg; Propyl hydride; R 290; C3H8; UN 1075; UN 1978; A-108; Hydrocarbon propellant.
Product code	: 001045

CAS number/other identifiers

- CAS number** : 74-98-6

Ingredient name	%	CAS number
Propane	100	74-98-6

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. To avoid the risk of static discharges and gas ignition, soak contaminated clothing thoroughly with water before removing it. Get medical attention if symptoms occur. In case of contact with liquid, warm frozen tissues slowly with lukewarm water and get medical attention. Do not rub affected area. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if adverse health effects persist or are severe. Ingestion of liquid can cause burns similar to frostbite. If frostbite occurs, get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. As this product rapidly becomes a gas when released, refer to the inhalation section.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Liquid can cause burns similar to frostbite.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Dermal contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite.

Section 4. First aid measures

Frostbite : Try to warm up the frozen tissues and seek medical attention.

Ingestion : Ingestion of liquid can cause burns similar to frostbite.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:, frostbite

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:, frostbite

Ingestion : Adverse symptoms may include the following:, frostbite

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : Contains gas under pressure. Extremely flammable gas. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Contact supplier immediately for specialist advice. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. If involved in fire, shut off flow immediately if it can be done without risk. If this is impossible, withdraw from area and allow fire to burn. Fight fire from protected location or maximum possible distance. Eliminate all ignition sources if safe to do so.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. For incidents involving large quantities, thermally insulated undergarments and thick textile or leather gloves should be worn.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Accidental releases pose a serious fire or explosion hazard. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing gas. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Section 6. Accidental release measures

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Ensure emergency procedures to deal with accidental gas releases are in place to avoid contamination of the environment. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment.

Large spill : Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Contains gas under pressure. Do not get in eyes or on skin or clothing. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Do not puncture or incinerate container. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement.

Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Eliminate all ignition sources. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Cylinder temperatures should not exceed 52 °C (125 °F). Keep container tightly closed and sealed until ready for use. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Propane	<p>NIOSH REL (United States, 10/2016). TWA: 1800 mg/m³ 10 hours. TWA: 1000 ppm 10 hours.</p> <p>OSHA PEL (United States, 5/2018). TWA: 1800 mg/m³ 8 hours. TWA: 1000 ppm 8 hours.</p> <p>OSHA PEL 1989 (United States, 3/1989). TWA: 1800 mg/m³ 8 hours. TWA: 1000 ppm 8 hours.</p> <p>ACGIH TLV (United States, 3/2019). Oxygen Depletion [Asphyxiant]. Explosive potential.</p>

Section 8. Exposure controls/personal protection

- Appropriate engineering controls**
- : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls**
- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**
- Hygiene measures**
- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection**
- : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection**
- : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. If contact with the liquid is possible, insulated gloves suitable for low temperatures should be worn. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection**
- : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection**
- : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection**
- : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- Thermal hazards**
- : If there is a risk of contact with the liquid, all protective equipment worn should be suitable for use with extremely low temperature materials.

Section 9. Physical and chemical properties

Appearance

- Physical state**
- : Gas.
- Color**
- : Colorless.
- Odor**
- : Odorless.BUT MAY HAVE SKUNK ODOR ADDED.
- Odor threshold**
- : Not available.
- pH**
- : Not available.
- Melting point**
- : -187.6°C (-305.7°F)
- Boiling point**
- : -42.1°C (-43.8°F)

Section 9. Physical and chemical properties

Critical temperature	: 96.55°C (205.8°F)
Flash point	: Closed cup: -104°C (-155.2°F) Open cup: -104°C (-155.2°F)
Evaporation rate	: Not available.
Flammability (solid, gas)	: Extremely flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and oxidizing materials.
Lower and upper explosive (flammable) limits	: Lower: 1.8% Upper: 8.4%
Vapor pressure	: 109 (psig)
Vapor density	: 1.6 (Air = 1)
Specific Volume (ft³/lb)	: 8.6206
Gas Density (lb/ft³)	: 0.116 (25°C / 77 to °F)
Relative density	: Not applicable.
Solubility	: Not available.
Solubility in water	: 0.0244 g/l
Partition coefficient: n-octanol/water	: 1.09
Auto-ignition temperature	: 287°C (548.6°F)
Decomposition temperature	: Not available.
Viscosity	: Not applicable.
Flow time (ISO 2431)	: Not available.
Molecular weight	: 44.11 g/mole
Aerosol product	
Heat of combustion	: -46012932 J/kg

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow gas to accumulate in low or confined areas.
Incompatible materials	: Oxidizers
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hazardous polymerization	: Under normal conditions of storage and use, hazardous polymerization will not occur.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Liquid can cause burns similar to frostbite.

Inhalation : No known significant effects or critical hazards.

Skin contact : Dermal contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite.

Ingestion : Ingestion of liquid can cause burns similar to frostbite.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following; frostbite

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following; frostbite

Ingestion : Adverse symptoms may include the following; frostbite

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Section 11. Toxicological information

Potential chronic health effects

Not available.

General	: No known significant effects or critical hazards.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Propane	1.09	-	low

Mobility in soil

Soil/water partition coefficient (K_{oc})	: Not available.
--	------------------

Other adverse effects	: No known significant effects or critical hazards.
------------------------------	---

Section 13. Disposal considerations

Disposal methods

Disposal methods	: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Empty Airgas-owned pressure vessels should be returned to Airgas. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.
-------------------------	---

Section 14. Transport information

	DOT	TDG	Mexico	IMDG	IATA
UN number	UN1978	UN1978	UN1978	UN1978	UN1978
UN proper shipping name	PROPANE SEE ALSO PETROLEUM GASES, LIQUEFIED	PROPANE	PROPANE SEE ALSO PETROLEUM GASES, LIQUEFIED (propane)	PROPANE	PROPANE
Transport hazard class(es)	2.1 	2.1 	2.1 	2.1 	2.1 
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.

"Refer to CFR 49 (or authority having jurisdiction) to determine the information required for shipment of the product."

Additional information

- DOT Classification** : Limited quantity
Yes.
- Packaging instruction**
Passenger aircraft
Quantity limitation: Forbidden.
- Cargo aircraft**
Quantity limitation: 150 kg
- Special provisions**
19, T50
- For domestic transportation only, UN1075 may be substituted for the UN number shown as long as the substitution is consistent on package markings, shipping papers, and emergency response information. See 49 CFR 172.102 Special Provision 19.
- Containers of NON-ODORIZED liquefied petroleum gas must be marked either NON-ODORIZED or NOT ODORIZED as of September 30, 2006. [49 CFR 172.301(f), 326(d), 330(c) and 338(e)]
- TDG Classification** : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2).
Explosive Limit and Limited Quantity Index 0.125
ERAP Index 3000
Passenger Carrying Vessel Index 65
Passenger Carrying Road or Rail Index Forbidden
Special provisions 29, 42
- IATA** : Quantity limitation Passenger and Cargo Aircraft: Forbidden. Cargo Aircraft Only: 150 kg.
- Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 14. Transport information

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

U.S. Federal regulations	:	TSCA 8(a) CDR Exempt/Partial exemption: Not determined Clean Air Act (CAA) 112 regulated flammable substances: propane
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	:	Not listed
Clean Air Act Section 602 Class I Substances	:	Not listed
Clean Air Act Section 602 Class II Substances	:	Not listed
DEA List I Chemicals (Precursor Chemicals)	:	Not listed
DEA List II Chemicals (Essential Chemicals)	:	Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ

: Not applicable.

SARA 311/312

Classification : Refer to Section 2: Hazards Identification of this SDS for classification of substance.

State regulations

Massachusetts	:	This material is listed.
New York	:	This material is not listed.
New Jersey	:	This material is listed.
Pennsylvania	:	This material is listed.

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia	:	This material is listed or exempted.
Canada	:	This material is listed or exempted.
China	:	This material is listed or exempted.
Europe	:	This material is listed or exempted.

Section 15. Regulatory information

Japan	:	Japan inventory (ENCS): This material is listed or exempted. Japan inventory (ISHL): This material is listed or exempted.
New Zealand	:	This material is listed or exempted.
Philippines	:	This material is listed or exempted.
Republic of Korea	:	This material is listed or exempted.
Taiwan	:	This material is listed or exempted.
Thailand	:	Not determined.
Turkey	:	This material is listed or exempted.
United States	:	This material is active or exempted.
Viet Nam	:	This material is listed or exempted.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	/	2
Flammability		4
Physical hazards		0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE GASES - Category 1	Expert judgment
GASES UNDER PRESSURE - Liquefied gas	Expert judgment

History

Date of printing	:	11/15/2020
Date of issue/Date of revision	:	11/15/2020
Date of previous issue	:	10/5/2020
Version	:	1.02

Section 16. Other information

Key to abbreviations

- : ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- UN = United Nations

References

Other special considerations

- : Not available.
- : The information below is given to call attention to the issue of "Naturally occurring radioactive materials". Although Radon-222 levels in the product represented by this MSDS do not present any direct Radon exposure hazard, customers should be aware of the potential for Radon daughter build up within their processing systems, whatever the source of their product streams. Radon-222 is a naturally occurring radioactive gas which can be a contaminant in natural gas. During subsequent processing , Radon tends to be concentrated in Liquefied Petroleum Gas streams and in product streams having a similar boiling point range. Industry experience has shown that this product may contain small amounts of Radon-222 and its radioactive decay products, called Radon "daughters". The actual concentration of Radon-222 and radioactive daughters in the delivered product is dependent on the geographical source of the natural gas and storage time prior to delivery. Process equipment (i.e. lines, filters, pumps and reaction units) may accumulate significant levels of radioactive daughters and show a gamma radiation reading during operation. A potential external radiation hazard exists at or near any pipe valve or vessel containing a Radon enriched stream, or containing internal deposits of radioactive material due to the transmission of gamma radiation through its wall. Field studies reported in the literature have not shown any conditions that subject workers to cumulative exposures in excess of general population limits. Equipment emitting gamma radiation should be presumed to be internally contaminated with alpha emitting decay products which may be a hazard if inhaled or ingested. Protective equipment such as coveralls, gloves, and respirator (NIOSH/MHSA approved for high efficiency particulates and radionuclides, or supplied air) should be worn by personnel entering a vessel or working on contaminated process equipment to prevent skin contamination, ingestion, or inhalation of any residues containing alpha radiation. Airborne contamination may be minimized by handling scale and/or contaminated materials in a wet state.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

PURELL® Advanced Hand Sanitizer Refreshing Gel

Version 1.1

SDS Number: 400000005867

Revision Date: 08/02/2020

SECTION 1. IDENTIFICATION

Product name	: PURELL® Advanced Hand Sanitizer Refreshing Gel
Manufacturer or supplier's details	
Company name of supplier	: GOJO Industries, Inc.
Address	: One GOJO Plaza, Suite 500 Akron, Ohio 44311
Telephone	: 1 (330) 255-6000
Emergency telephone number	: CHEMTREC 1-800-424-9300 CHEMTREC +1-703-527-3887: Outside USA & CANADA

Recommended use of the chemical and restrictions on use

Recommended use	: Hand Sanitizer
Restrictions on use	: This is a personal care or cosmetic product that is safe for consumers and other users under normal and reasonably foreseeable use. Cosmetics and consumer products, specifically defined by regulations around the world, are exempt from the requirement of an SDS for the consumer. While this material is not considered hazardous, this SDS contains valuable information critical to the safe handling and proper use of the product for industrial workplace conditions as well as unusual and unintended exposures such as large spills. This SDS should be retained and available for employees and other users of this product. For specific intended-use guidance, please refer to the information provided on the package or instruction sheet.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids	: Category 3
Eye irritation	: Category 2A

GHS label elements

Hazard pictograms	:  
Signal word	: Warning
Hazard statements	: H226 Flammable liquid and vapour. H319 Causes serious eye irritation.
Precautionary statements	: Prevention: P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P233 Keep container tightly closed.

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- P240 Ground/bond container and receiving equipment.
 P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
 P242 Use only non-sparking tools.
 P243 Take precautionary measures against static discharge.
 P280 Wear eye protection/ face protection.

Response:

- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337 + P313 If eye irritation persists: Get medical advice/ attention.
 P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage:

- P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal:

- P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical name	CAS-No.	Concentration (%)
Ethyl Alcohol	64-17-5	>= 60 - < 70
Isopropyl Alcohol	67-63-0	>= 1 - < 5

SECTION 4. FIRST AID MEASURES

- | | |
|---|--|
| General advice | : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice. |
| If inhaled | : If inhaled, remove to fresh air.
If symptoms persist, call a physician. |
| In case of skin contact | : Wash with water and soap as a precaution.
Get medical attention if irritation develops and persists. |
| In case of eye contact | : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
If easy to do, remove contact lens, if worn.
Seek medical advice. |
| If swallowed | : If swallowed, DO NOT induce vomiting.
Rinse mouth with water.
Obtain medical attention. |
| Most important symptoms and effects, both acute and delayed | : Causes serious eye irritation. |
| Protection of first-aiders | : First Aid responders should pay attention to self-protection and use the recommended protective clothing |

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SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Water spray Alcohol-resistant foam Dry chemical Carbon dioxide (CO2)
Unsuitable extinguishing media	: High volume water jet
Specific hazards during firefighting	: Do not use a solid water stream as it may scatter and spread fire. Cool closed containers exposed to fire with water spray. Flash back possible over considerable distance. May form explosive mixtures in air. Exposure to decomposition products may be a hazard to health. Carbon oxides
Hazardous combustion products	: Carbon oxides
Specific extinguishing methods	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers.
Further information	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for firefighters	: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Material can create slippery conditions.
Environmental precautions	: Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	: Non-sparking tools should be used. Soak up with inert absorbent material. Suppress (knock down) gases/vapours/mists with a water spray jet. Keep in suitable, closed containers for disposal. Clean contaminated floors and objects thoroughly while observing environmental regulations.

SECTION 7. HANDLING AND STORAGE

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Advice on safe handling	: For personal protection see section 8. Keep away from heat. Use with local exhaust ventilation. Avoid contact with eyes.
Conditions for safe storage	: Take measures to prevent the build up of electrostatic charge. Keep in properly labelled containers. Keep container tightly closed in a dry and well-ventilated place. Store in accordance with the particular national regulations.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Ethyl Alcohol	64-17-5	TWA	1,000 ppm 1,900 mg/m ³	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m ³	OSHA Z-1
		STEL	1,000 ppm	ACGIH
Isopropyl Alcohol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		TWA	400 ppm 980 mg/m ³	NIOSH REL
		ST	500 ppm 1,225 mg/m ³	NIOSH REL
		TWA	400 ppm 980 mg/m ³	OSHA Z-1

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Isopropyl Alcohol	67-63-0	Acetone	Urine	End of shift at end of workweek	40 mg/l	ACGIH BEI

Personal protective equipment

Respiratory protection	: No personal respiratory protective equipment normally required.
Hand protection	: No special protective equipment required.
Remarks	
Eye protection	: Wear face-shield and protective suit for abnormal processing problems.
Skin and body protection	: No special measures necessary provided product is used correctly.
Protective measures	: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Ensure that eye flushing systems and safety showers are located close to the working place.

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Hygiene measures	: Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes.
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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: clear, colourless, light yellow
Odour	: citrus
Odour Threshold	: No data available
pH	: 6.5 - 8.5
Melting point/freezing point	: No data available
Boiling point/boiling range	: 70.00 °C
Flash point	: 25.00 °C
Evaporation rate	: No data available
Flammability (solid, gas)	: Not applicable
Flammability (liquids)	:
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Density	: 0.8743 g/cm ³
Solubility(ies)	
Water solubility	: soluble
Partition coefficient: n-octanol/water	: Not applicable
Auto-ignition temperature	: not determined
Thermal decomposition	: The substance or mixture is not classified self-reactive.
Viscosity	
Viscosity, kinematic	: 3500 - 23000 mm ² /s (20 °C)
Explosive properties	: Not explosive
Oxidizing properties	: The substance or mixture is not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Not classified as a reactivity hazard.
Chemical stability	: Stable under normal conditions.

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Possibility of hazardous reactions	: Vapours may form explosive mixture with air.
Conditions to avoid	: Heat, flames and sparks.
Incompatible materials	: Oxidizing agents
Hazardous decomposition products	: No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
Skin contact
Eye contact

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg
Method: Calculation method

Components:

Ethyl Alcohol:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Acute inhalation toxicity : LC50 (Rat): 124.7 mg/l
Exposure time: 4 h
Test atmosphere: vapour

Isopropyl Alcohol:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Acute inhalation toxicity : LC50 (Rat): 72.6 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Components:

Ethyl Alcohol:

Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

Isopropyl Alcohol:

Species: Rabbit
Result: No skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

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Components:**Ethyl Alcohol:**

Species: Rabbit

Result: Irritation to eyes, reversing within 21 days

Method: OECD Test Guideline 405

Isopropyl Alcohol:

Species: Rabbit

Result: Irritation to eyes, reversing within 21 days

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Components:**Ethyl Alcohol:**

Test Type: Local lymph node assay (LLNA)

Exposure routes: Skin contact

Species: Mouse

Result: negative

Isopropyl Alcohol:

Test Type: Buehler Test

Exposure routes: Skin contact

Species: Guinea pig

Method: OECD Test Guideline 406

Result: negative

Germ cell mutagenicity

Not classified based on available information.

Components:**Ethyl Alcohol:**

Genotoxicity in vitro

: Test Type: In vitro mammalian cell gene mutation test
Result: negative

Genotoxicity in vivo

: Test Type: Rodent dominant lethal test (germ cell) (in vivo)
Test species: Mouse
Application Route: Ingestion
Result: negative**Isopropyl Alcohol:**

Genotoxicity in vitro

: Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Genotoxicity in vivo

: Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Test species: Mouse
Application Route: Intraperitoneal injection
Result: negative**Carcinogenicity**

Not classified based on available information.

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Components:

Isopropyl Alcohol:

Species: Rat

Application Route: inhalation (vapour)

Exposure time: 104 weeks

Method: OECD Test Guideline 451

Result: negative

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Components:

Ethyl Alcohol:

Effects on fertility

- : Test Type: Two-generation reproduction toxicity study
- Species: Mouse
- Application Route: Ingestion
- Method: OECD Test Guideline 416
- Result: negative

Isopropyl Alcohol:

Effects on fertility

- : Test Type: Two-generation reproduction toxicity study
- Species: Rat
- Application Route: Ingestion
- Result: negative

Effects on foetal development

- : Test Type: Embryo-foetal development
- Species: Rat
- Application Route: Ingestion
- Result: negative

STOT - single exposure

Not classified based on available information.

Components:

Isopropyl Alcohol:

Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

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Ethyl Alcohol:

Species: Rat
 NOAEL: 2,400 mg/kg
 Application Route: Ingestion
 Exposure time: 2 y

Isopropyl Alcohol:

Species: Rat
 NOAEL: 5000 ppm
 Application Route: inhalation (vapour)
 Exposure time: 104 w
 Method: OECD Test Guideline 413

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Ethyl Alcohol:

- | | |
|---|---|
| Toxicity to fish | : LC50 (Pimephales promelas (fathead minnow)): > 1,000 mg/l
Exposure time: 96 h |
| Toxicity to daphnia and other aquatic invertebrates | : EC50 (Daphnia magna (Water flea)): > 1,000 mg/l
Exposure time: 48 h |
| Toxicity to algae | : EC50 (Chlorella vulgaris (Fresh water algae)): 275 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201 |
| Toxicity to daphnia and other aquatic invertebrates
(Chronic toxicity) | : NOEC (Daphnia magna (Water flea)): 9.6 mg/l
Exposure time: 9 d |
| Toxicity to bacteria | : EC50 (Photobacterium phosphoreum): 32.1 mg/l
Exposure time: 0.25 h |

Isopropyl Alcohol:

- | | |
|---|---|
| Toxicity to fish | : LC50 (Pimephales promelas (fathead minnow)): 10,000 mg/l
Exposure time: 96 h |
| Toxicity to daphnia and other aquatic invertebrates | : EC50 (Daphnia magna (Water flea)): > 10,000 mg/l
Exposure time: 24 h |
| Toxicity to bacteria | : EC50 (Pseudomonas putida): > 1,050 mg/l
Exposure time: 16 h |

Persistence and degradability

Components:

Ethyl Alcohol:

- | | |
|------------------|--|
| Biodegradability | : Result: Readily biodegradable.
Biodegradation: 84 % |
|------------------|--|

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Exposure time: 20 d

Isopropyl Alcohol:

Biodegradability : Result: rapidly degradable

Bioaccumulative potential**Components:****Ethyl Alcohol:**

Partition coefficient: n-octanol/water : log Pow: -0.35

Isopropyl Alcohol:

Partition coefficient: n-octanol/water : log Pow: 0.05

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Regulation 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues	: Dispose of in accordance with local regulations.
Contaminated packaging	: Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION**International Regulation****IATA-DGR**

UN/ID No.	: UN 1987
Proper shipping name	: Alcohols, n.o.s. (Ethanol, Propan-2-ol)
Class	: 3
Packing group	: III
Packing instruction (cargo aircraft)	: 366
Packing instruction (passenger aircraft)	: 355

IMDG-Code

UN number : UN 1987

SAFETY DATA SHEET



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Proper shipping name	:	ALCOHOLS, N.O.S. (Ethanol, Propan-2-ol)
Class	:	3
Packing group	:	III
Labels	:	3
EmS Code	:	F-E, S-D
Marine pollutant	:	no

National Regulations

49 CFR

UN/ID/NA number	:	UN 1987
Proper shipping name	:	Alcohols, n.o.s.
Class	:	3
Packing group	:	III
ERG Code	:	127
Marine pollutant	:	no

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

SARA 311/312 Hazards	:	Fire Hazard Acute Health Hazard
SARA 302	:	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313	:	The following components are subject to reporting levels established by SARA Title III, Section 313:
		Isopropyl Alcohol 67-63-0 3.4086 %

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMi Intermediate or Final VOC's (40 CFR 60.489):

Ethyl Alcohol	64-17-5	65.2821 %
Isopropyl Alcohol	67-63-0	3.4086 %

This product does not contain any VOC exemptions listed under the U.S. Clean Air Act Section 450.

California Prop 65	This product does not require a warning label under California Proposition 65.
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The components of this product are reported in the following inventories:

TSCA	:	On TSCA Inventory
CH INV	:	On the inventory, or in compliance with the inventory
AICS	:	On the inventory, or in compliance with the inventory

PURELL® Advanced Hand Sanitizer Refreshing Gel

Version 1.1

SDS Number: 400000005867

Revision Date: 08/02/2020

DSL	: On the inventory, or in compliance with the inventory
ENCS	: On the inventory, or in compliance with the inventory
ISHL	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory
NZIoC	: On the inventory, or in compliance with the inventory

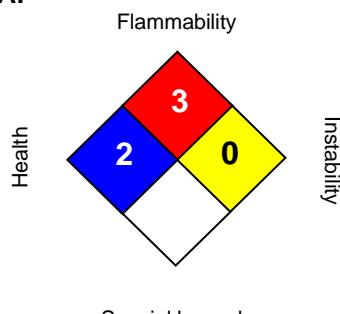
Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS III:

HEALTH	2
FLAMMABILITY	3
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Revision Date : 08/02/2020

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



Clear Cleaner and Purple Primer Cleaner

Oatey Co.

Version No: 1.4

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: 07/22/2024

Print Date: 07/22/2024

S.GHS.USA.EN

SECTION 1 Identification

Product Identifier

Product name	Clear Cleaner and Purple Primer Cleaner
Synonyms	Not Available
Proper shipping name	Acetone
Other means of identification	Clear Cleaner: 30766, 30779, 30782, 30795, 30805 Purple Primer Cleaner 30768, 30780, 30783, 30796, 30806

Recommended use of the chemical and restrictions on use

Relevant identified uses	Joining PVC Pipes
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Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	Oatey Co.
Address	20600 Emerald Parkway, Cleveland, OH 44135 United States Ohio 44135 United States
Telephone	216-267-7100
Fax	Not Available
Website	oatey.com
Email	info@oatey.com

Emergency phone number

Association / Organisation	Chemtrec
Emergency telephone numbers	1-800-424-9300 (Outside the US 1-703-527-3887)
Other emergency telephone numbers	1-877-740-5015 (Emergency First Aid)

SECTION 2 Hazard(s) identification

Classification of the substance or mixture

Classification	Flammable Liquids Category 2, Serious Eye Damage/Eye Irritation Category 2A, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3
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Label elements

Hazard pictogram(s)	
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Signal word	Danger
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Hazard statement(s)

	Highly flammable liquid and vapour.
	Causes serious eye irritation.
	May cause drowsiness or dizziness.

Hazard(s) not otherwise classified

Repeated exposure may cause skin dryness or cracking.

Precautionary statement(s) Prevention

	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
	Keep container tightly closed.
	Use only outdoors or in a well-ventilated area.
	Ground/bond container and receiving equipment.
	Use explosion-proof electrical/ventilating/lighting/intrinsically safe equipment.
	Use only non-sparking tools.
	Take precautionary measures against static discharge.
	Avoid breathing mist/vapours/spray.
	Wash all exposed external body areas thoroughly after handling.
	Wear protective gloves/eye protection/face protection.

Precautionary statement(s) Response

	In case of fire: Use alcohol resistant foam or normal protein foam to extinguish.
	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.
	If eye irritation persists: Get medical advice/attention.
	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Precautionary statement(s) Storage

	Store in a well-ventilated place. Keep cool.
	Store locked up.

Precautionary statement(s) Disposal

	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.
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SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
67-64-1*	80-100	<u>Acetone</u>
108-94-1*	1-5	<u>cyclohexanone</u>

SECTION 4 First-aid measures

Description of first aid measures

Eye Contact	If this product comes in contact with the eyes: ► Wash out immediately with fresh running water.
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Continued...

Clear Cleaner and Purple Primer Cleaner

	<ul style="list-style-type: none"> ▸ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ▸ Seek medical attention without delay; if pain persists or recurs seek medical attention. ▸ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	<p>If skin or hair contact occurs:</p> <ul style="list-style-type: none"> ▸ Flush skin and hair with running water (and soap if available). ▸ Seek medical attention in event of irritation.
Inhalation	<ul style="list-style-type: none"> ▸ If fumes, aerosols or combustion products are inhaled remove from contaminated area. ▸ Other measures are usually unnecessary.
Ingestion	<ul style="list-style-type: none"> ▸ Immediately give a glass of water. ▸ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Most important symptoms and effects, both acute and delayed

See Section 11

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Fire-fighting measures**Extinguishing media**

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog - Large fires only.

Special hazards arising from the substrate or mixture

Fire Incompatibility	<ul style="list-style-type: none"> ▸ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
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Special protective equipment and precautions for fire-fighters

Fire Fighting	<ul style="list-style-type: none"> ▸ Alert Fire Department and tell them location and nature of hazard. ▸ May be violently or explosively reactive. ▸ Wear breathing apparatus plus protective gloves in the event of a fire. ▸ Prevent, by any means available, spillage from entering drains or water course. ▸ Consider evacuation (or protect in place). ▸ Fight fire from a safe distance, with adequate cover. ▸ If safe, switch off electrical equipment until vapour fire hazard removed. ▸ Use water delivered as a fine spray to control the fire and cool adjacent area. ▸ Avoid spraying water onto liquid pools. ▸ Do not approach containers suspected to be hot. ▸ Cool fire exposed containers with water spray from a protected location. ▸ If safe to do so, remove containers from path of fire.
Fire/Explosion Hazard	<ul style="list-style-type: none"> ▸ Liquid and vapour are highly flammable. ▸ Severe fire hazard when exposed to heat, flame and/or oxidisers. ▸ Vapour may travel a considerable distance to source of ignition. ▸ Heating may cause expansion or decomposition leading to violent rupture of containers. ▸ On combustion, may emit toxic fumes of carbon monoxide (CO). <p>Combustion products include: Contains low boiling substance: Closed containers may rupture due to pressure buildup under fire conditions.</p>

SECTION 6 Accidental release measures**Personal precautions, protective equipment and emergency procedures**

See section 8

Environmental precautions

See section 12

Continued...

Clear Cleaner and Purple Primer Cleaner

Methods and material for containment and cleaning up

Minor Spills	<ul style="list-style-type: none"> ▸ Remove all ignition sources. ▸ Clean up all spills immediately. ▸ Avoid breathing vapours and contact with skin and eyes. ▸ Control personal contact with the substance, by using protective equipment. ▸ Contain and absorb small quantities with vermiculite or other absorbent material. ▸ Wipe up. ▸ Collect residues in a flammable waste container.
Major Spills	<ul style="list-style-type: none"> ▸ Clear area of personnel and move upwind. ▸ Alert Fire Department and tell them location and nature of hazard. ▸ May be violently or explosively reactive. ▸ Wear breathing apparatus plus protective gloves. ▸ Prevent, by any means available, spillage from entering drains or water course. ▸ Consider evacuation (or protect in place). ▸ No smoking, naked lights or ignition sources. ▸ Increase ventilation. ▸ Stop leak if safe to do so. ▸ Water spray or fog may be used to disperse /absorb vapour. ▸ Contain spill with sand, earth or vermiculite. ▸ Use only spark-free shovels and explosion proof equipment. ▸ Collect recoverable product into labelled containers for recycling. ▸ Absorb remaining product with sand, earth or vermiculite. ▸ Collect solid residues and seal in labelled drums for disposal. ▸ Wash area and prevent runoff into drains. ▸ If contamination of drains or waterways occurs, advise emergency services.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage**Precautions for safe handling**

Safe handling	<ul style="list-style-type: none"> ▸ Containers, even those that have been emptied, may contain explosive vapours. ▸ Do NOT cut, drill, grind, weld or perform similar operations on or near containers. <p>Contains low boiling substance:</p> <p>Storage in sealed containers may result in pressure buildup causing violent rupture of containers not rated appropriately.</p> <ul style="list-style-type: none"> ▸ Check for bulging containers. ▸ Vent periodically ▸ Always release caps or seals slowly to ensure slow dissipation of vapours ▸ Avoid all personal contact, including inhalation. ▸ Wear protective clothing when risk of exposure occurs. ▸ Use in a well-ventilated area. ▸ Prevent concentration in hollows and sumps. ▸ DO NOT enter confined spaces until atmosphere has been checked. ▸ Avoid smoking, naked lights, heat or ignition sources. ▸ When handling, DO NOT eat, drink or smoke. ▸ Vapour may ignite on pumping or pouring due to static electricity. ▸ DO NOT use plastic buckets. ▸ Earth and secure metal containers when dispensing or pouring product. ▸ Use spark-free tools when handling. ▸ Avoid contact with incompatible materials. ▸ Keep containers securely sealed. ▸ Avoid physical damage to containers. ▸ Always wash hands with soap and water after handling. ▸ Work clothes should be laundered separately. ▸ Use good occupational work practice. ▸ Observe manufacturer's storage and handling recommendations contained within this SDS. ▸ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.
Other information	<ul style="list-style-type: none"> ▸ Store in original containers in approved flame-proof area. ▸ No smoking, naked lights, heat or ignition sources. ▸ DO NOT store in pits, depression, basement or areas where vapours may be trapped. ▸ Keep containers securely sealed. ▸ Store away from incompatible materials in a cool, dry well ventilated area. ▸ Protect containers against physical damage and check regularly for leaks. ▸ Observe manufacturer's storage and handling recommendations contained within this SDS. ▸ Tank storage: Tanks must be specifically designed for use with this product. Bulk storage tanks should be diked (bunded). Locate tanks away from heat and other sources of ignition. Cleaning, inspection and maintenance of storage tanks is a

Continued...

Clear Cleaner and Purple Primer Cleaner

- specialist operation, which requires the implementation of strict procedures and precautions.
- Keep in a cool place. Electrostatic charges will be generated during pumping. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment to reduce the risk. The vapours in the head space of the storage vessel may lie in the flammable/explosive range and hence may be flammable.
 - For containers, or container linings use mild steel, stainless steel. Examples of suitable materials are: high density polyethylene (HDPE), polypropylene (PP), and Viton (FMK), which have been specifically tested for compatibility with this product.
 - For container linings, use amine-adduct cured epoxy paint.
 - For seals and gaskets use: graphite, PTFE, Viton A, Viton B.
 - Unsuitable material: Some synthetic materials may be unsuitable for containers or container linings depending on the material specification and intended use. Examples of materials to avoid are: natural rubber (NR), nitrile rubber (NBR), ethylene propylene rubber (EPDM), polymethyl methacrylate (PMMA), polystyrene, polyvinyl chloride (PVC), polyisobutylene. However, some may be suitable for glove materials.
 - Do not cut, drill, grind, weld or perform similar operations on or near containers. Containers, even those that have been emptied, can contain explosive vapours.

Conditions for safe storage, including any incompatibilities

Suitable container	<ul style="list-style-type: none"> ▸ Packing as supplied by manufacturer. ▸ Plastic containers may only be used if approved for flammable liquid. ▸ Check that containers are clearly labelled and free from leaks.
Storage incompatibility	<ul style="list-style-type: none"> ▸ Avoid reaction with oxidising agents

SECTION 8 Exposure controls / personal protection**Control parameters****Occupational Exposure Limits (OEL)****INGREDIENT DATA**

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US OSHA Permissible Exposure Limits (PELs) Table Z-1	Acetone	Acetone	1000 ppm / 2400 mg/m ³	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	Acetone	Acetone	250 ppm / 590 mg/m ³	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	cyclohexanone	Cyclohexanone	50 ppm / 200 mg/m ³	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	cyclohexanone	Cyclohexanone	25 ppm / 100 mg/m ³	Not Available	Not Available	[skin]

Exposure controls

Appropriate engineering controls	<p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard 'physically' away from the worker and ventilation that strategically 'adds' and 'removes' air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.</p> <p>Employers may need to use multiple types of controls to prevent employee overexposure.</p> <p>For flammable liquids and flammable gases, local exhaust ventilation or a process enclosure ventilation system may be required. Ventilation equipment should be explosion-resistant.</p> <p>Air contaminants generated in the workplace possess varying 'escape' velocities which, in turn, determine the 'capture velocities' of fresh circulating air required to effectively remove the contaminant.</p> <table border="1"> <tr> <td>Type of Contaminant:</td><td>Air Speed:</td></tr> <tr> <td>solvent, vapours, degreasing etc., evaporating from tank (in still air).</td><td>0.25-0.5 m/s (50-100 f/min.)</td></tr> <tr> <td>aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)</td><td>0.5-1 m/s (100-200 f/min.)</td></tr> </table>	Type of Contaminant:	Air Speed:	solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 f/min.)	aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)
Type of Contaminant:	Air Speed:						
solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 f/min.)						
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)						

Continued...

Clear Cleaner and Purple Primer Cleaner

	<p>direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)</p>	1-2.5 m/s (200-500 f/min.)
Within each range the appropriate value depends on:		
Lower end of the range	Upper end of the range	
1: Room air currents minimal or favourable to capture	1: Disturbing room air currents	
2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity	
3: Intermittent, low production.	3: High production, heavy use	
4: Large hood or large air mass in motion	4: Small hood-local control only	
<p>Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.</p> <ul style="list-style-type: none"> • Adequate ventilation is typically taken to be that which limits the average concentration to no more than 25% of the LEL within the building, room or enclosure containing the dangerous substance. • Ventilation for plant and machinery is normally considered adequate if it limits the average concentration of any dangerous substance that might potentially be present to no more than 25% of the LEL. However, an increase up to a maximum 50% LEL can be acceptable where additional safeguards are provided to prevent the formation of a hazardous explosive atmosphere. For example, gas detectors linked to emergency shutdown of the process might be used together with maintaining or increasing the exhaust ventilation on solvent evaporating ovens and gas turbine enclosures. • Temporary exhaust ventilation systems may be provided for non-routine higher-risk activities, such as cleaning, repair or maintenance in tanks or other confined spaces or in an emergency after a release. The work procedures for such activities should be carefully considered.. The atmosphere should be continuously monitored to ensure that ventilation is adequate and the area remains safe. Where workers will enter the space, the ventilation should ensure that the concentration of the dangerous substance does not exceed 10% of the LEL (irrespective of the provision of suitable breathing apparatus) 		
Individual protection measures, such as personal protective equipment	   	
Eye and face protection	<ul style="list-style-type: none"> ▸ Safety glasses with side shields. ▸ Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent] ▸ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59]. 	
Skin protection	<p>See Hand protection below</p>	
Hands/feet protection	<ul style="list-style-type: none"> ▸ Wear chemical protective gloves, e.g. PVC. ▸ Wear safety footwear or safety gumboots, e.g. Rubber 	
Body protection	<p>See Other protection below</p>	
Other protection	<ul style="list-style-type: none"> ▸ Overalls. ▸ PVC Apron. ▸ PVC protective suit may be required if exposure severe. ▸ Eyewash unit. ▸ Ensure there is ready access to a safety shower. ▸ Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity. ▸ For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets). ▸ Non sparking safety or conductive footwear should be considered. Conductive footwear describes a boot or shoe with a sole made from a conductive compound chemically bound to the bottom components, for permanent control to electrically ground the foot and shall dissipate static electricity from the body to reduce the possibility of ignition of volatile compounds. Electrical resistance must range between 0 to 500,000 ohms. Conductive shoes should be stored in lockers close to the room in which they are worn. Personnel who have been issued conductive footwear should not wear them from their place of work to their homes and return. 	

SECTION 9 Physical and chemical properties

Continued...

Clear Cleaner and Purple Primer Cleaner

Information on basic physical and chemical properties

Appearance	Clear/Purple Translucent Liquid		
Physical state	Liquid	Relative density (Water = 1)	0.79 +/- 0.02
Odour	Solvent	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cP)	<10
Initial boiling point and boiling range (°C)	56.11 (133°F)	Molecular weight (g/mol)	Not Available
Flash point (°C)	-20 (-4°F)	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	145 mm Hg @ 20°C	Gas group	Not Available
Solubility in water	Miscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	2.5	VOC g/L	<25 SCAQMD Method 24

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	► Unstable in the presence of incompatible materials. ► Product is considered stable. ► Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 Toxicological information

Information on toxicological effects

Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract. Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.
Ingestion	The material has NOT been classified as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence.
Skin Contact	The material is not thought to produce adverse health effects or skin irritation following contact. Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting. Open cuts, abraded or irritated skin should not be exposed to this material. Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

Continued...

Clear Cleaner and Purple Primer Cleaner

Eye	This material can cause eye irritation and damage in some persons.	
Chronic	Repeated exposure may cause skin dryness or cracking.	

Carcinogenicity	Chemical Name	IARC	NTP	OSHA
	Cyclohexanone	Group 3 -Not classifiable as to its carcinogenicity to humans	Not Listed	Not Listed

Acute Toxicity	X	Carcinogenicity	X
Skin Irritation/Corrosion	X	Reproductivity	X
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	✓
Respiratory or Skin sensitisation	X	STOT - Repeated Exposure	X
Mutagenicity	X	Aspiration Hazard	X

Legend: **X** – Data either not available or does not fill the criteria for classification
✓ – Data available to make classification

SECTION 12 Ecological information

Toxicity

Clear Cleaner and Purple Primer Cleaner	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
Acetone	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	5600-10000mg/L	4
	EC50	48h	Crustacea	6098.4mg/L	5
	NOEC(ECx)	12h	Fish	0.001mg/L	4
	LC50	96h	Fish	3744.6-5000.7mg/L	4
	EC50	96h	Algae or other aquatic plants	9.873-27.684mg/l	4
cyclohexanone	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	17.7-85.6mg/l	4
	EC10(ECx)	72h	Algae or other aquatic plants	0.4-7.93mg/l	4
	EC50	48h	Crustacea	>100mg/l	2
	LC50	96h	Fish	481-578mg/L	4
Legend:	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data				

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
Acetone	LOW (Half-life = 14 days)	MEDIUM (Half-life = 116.25 days)
cyclohexanone	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
Acetone	LOW (BCF = 0.69)
cyclohexanone	LOW (BCF = 2.45)

Continued...

Clear Cleaner and Purple Primer Cleaner**Mobility in soil**

Ingredient	Mobility
Acetone	HIGH (Log KOC = 1.981)
cyclohexanone	LOW (Log KOC = 15.15)

SECTION 13 Disposal considerations**Waste treatment methods**

Product / Packaging disposal	<p>Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.</p> <p>A Hierarchy of Controls seems to be common - the user should investigate:</p> <ul style="list-style-type: none"> ▶ Reduction ▶ Reuse ▶ Recycling ▶ Disposal (if all else fails) <p>This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.</p> <ul style="list-style-type: none"> ▶ DO NOT allow wash water from cleaning or process equipment to enter drains. ▶ It may be necessary to collect all wash water for treatment before disposal. ▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. ▶ Where in doubt contact the responsible authority. ▶ Recycle wherever possible. ▶ Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. ▶ Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material). ▶ Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.
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SECTION 14 Transport information**Labels Required**

	
Marine Pollutant	NO

Shipping container, transport vehicle placarding, and labeling may vary from the below information. This depends on the quantity shipped, the applicability of excepted quantity requirements, limited quantity requirements, and/or special provisions according to US DOT, IATA and IMDG regulations. In case of reshipment, it is the responsibility of the shipper to determine the appropriate labels and markings in accordance with applicable transport regulations.

Land transport (DOT)

14.1. UN number or ID number	1090	
14.2. UN proper shipping name	Acetone	
14.3. Transport hazard class(es)	Class	3
	Subsidiary Hazard	Not Applicable
14.4. Packing group	II	
14.5. Environmental hazard	Not Applicable	
14.6. Special precautions for user	Hazard Label	3
	Special provisions	IB2, T4, TP1

Air transport (ICAO-IATA / DGR)

Continued...

Clear Cleaner and Purple Primer Cleaner

14.1. UN number	1090	
14.2. UN proper shipping name	Acetone	
14.3. Transport hazard class(es)	ICAO/IATA Class	3
	ICAO / IATA Subsidiary Hazard	Not Applicable
	ERG Code	3H
14.4. Packing group	II	
14.5. Environmental hazard	Not Applicable	
14.6. Special precautions for user	Special provisions	Not Applicable
	Cargo Only Packing Instructions	364
	Cargo Only Maximum Qty / Pack	60 L
	Passenger and Cargo Packing Instructions	353
	Passenger and Cargo Maximum Qty / Pack	5 L
	Passenger and Cargo Limited Quantity Packing Instructions	Y341
	Passenger and Cargo Limited Maximum Qty / Pack	1 L

Sea transport (IMDG-Code / GGVSee)

14.1. UN number	1090	
14.2. UN proper shipping name	ACETONE	
14.3. Transport hazard class(es)	IMDG Class	3
	IMDG Subsidiary Hazard	Not Applicable
14.4. Packing group	II	
14.5 Environmental hazard	Not Applicable	
14.6. Special precautions for user	EMS Number	F-E , S-D
	Special provisions	Not Applicable
	Limited Quantities	1 L

SECTION 15 Regulatory information**Safety, health and environmental regulations / legislation specific for the substance or mixture****Acetone is found on the following regulatory lists**

- US - Massachusetts - Right To Know Listed Chemicals
- US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)
- US DOE Temporary Emergency Exposure Limits (TEELs)
- US Drug Enforcement Administration (DEA) List I and II Regulated Chemicals
- US EPA Integrated Risk Information System (IRIS)
- US NIOSH Recommended Exposure Limits (RELs)
- US OSHA Permissible Exposure Limits (PELs) Table Z-1
- US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
- US TSCA Section 4/12 (b) - Sunset Dates/Status

cyclohexanone is found on the following regulatory lists

- International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic
- US - Massachusetts - Right To Know Listed Chemicals
- US DOE Temporary Emergency Exposure Limits (TEELs)
- US EPA Integrated Risk Information System (IRIS)

Continued...

Clear Cleaner and Purple Primer Cleaner

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

Additional Regulatory Information

Not Applicable

Federal Regulations**Superfund Amendments and Reauthorization Act of 1986 (SARA)****Section 311/312 hazard categories**

Flammable (Gases, Aerosols, Liquids, or Solids)	Yes
Gas under pressure	No
Explosive	No
Self-heating	No
Pyrophoric (Liquid or Solid)	No
Pyrophoric Gas	No
Corrosive to metal	No
Oxidizer (Liquid, Solid or Gas)	No
Organic Peroxide	No
Self-reactive	No
In contact with water emits flammable gas	No
Combustible Dust	No
Carcinogenicity	No
Acute toxicity (any route of exposure)	No
Reproductive toxicity	No
Skin Corrosion or Irritation	No
Respiratory or Skin Sensitization	No
Serious eye damage or eye irritation	Yes
Specific target organ toxicity (single or repeated exposure)	Yes
Aspiration Hazard	No
Germ cell mutagenicity	No
Simple Asphyxiant	No
Hazards Not Otherwise Classified	Yes

US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

Name	Reportable Quantity in Pounds (lb)	Reportable Quantity in kg
Acetone	5000	2270
cyclohexanone	5000	2270

US. EPCRA Section 313 Toxic Release Inventory (TRI) (40 CFR 372)

None Reported

Additional Federal Regulatory Information

Not Applicable

State Regulations**US. California Proposition 65**

None Reported

Additional State Regulatory Information

Not Applicable

National Inventory Status

National Inventory	Status

Continued...

Clear Cleaner and Purple Primer Cleaner

National Inventory	Status
USA - TSCA	Yes
Legend:	<i>Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.</i>

SECTION 16 Other information

Revision Date	07/22/2024
Initial Date	07/14/2024

Other information

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

- ▶ PC - TWA: Permissible Concentration-Time Weighted Average
- ▶ PC - STEL: Permissible Concentration-Short Term Exposure Limit
- ▶ IARC: International Agency for Research on Cancer
- ▶ ACGIH: American Conference of Governmental Industrial Hygienists
- ▶ STEL: Short Term Exposure Limit
- ▶ TEEL: Temporary Emergency Exposure Limit,
- ▶ IDLH: Immediately Dangerous to Life or Health Concentrations
- ▶ ES: Exposure Standard
- ▶ OSF: Odour Safety Factor
- ▶ NOAEL: No Observed Adverse Effect Level
- ▶ LOAEL: Lowest Observed Adverse Effect Level
- ▶ TLV: Threshold Limit Value
- ▶ LOD: Limit Of Detection
- ▶ OTV: Odour Threshold Value
- ▶ BCF: BioConcentration Factors
- ▶ BEI: Biological Exposure Index
- ▶ DNEL: Derived No-Effect Level
- ▶ PNEC: Predicted no-effect concentration
- ▶ AIIC: Australian Inventory of Industrial Chemicals
- ▶ DSL: Domestic Substances List
- ▶ NDSL: Non-Domestic Substances List
- ▶ IECSC: Inventory of Existing Chemical Substance in China
- ▶ EINECS: European INventory of Existing Commercial chemical Substances
- ▶ ELINCS: European List of Notified Chemical Substances
- ▶ NLP: No-Langer Polymers
- ▶ ENCS: Existing and New Chemical Substances Inventory
- ▶ KECL: Korea Existing Chemicals Inventory
- ▶ NZIoC: New Zealand Inventory of Chemicals
- ▶ PICCS: Philippine Inventory of Chemicals and Chemical Substances
- ▶ TSCA: Toxic Substances Control Act
- ▶ TCSI: Taiwan Chemical Substance Inventory
- ▶ INSQ: Inventario Nacional de Sustancias Químicas
- ▶ NCI: National Chemical Inventory
- ▶ FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

Clear Cleaner and Purple Primer Cleaner

1. Identification

Product identifier PVC All Weather Clear Cement

Other means of identification

Product code 1105E

Synonyms

Part Numbers: 31132, 31133, 31135, 31136, 31137

Recommended use Joining PVC Pipes

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name Oatey Co.

Address 4700 West 160th St.
Cleveland, OH 44135

Telephone 216-267-7100

E-mail info@oatey.com

Transport Emergency Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)

Emergency First Aid 1-877-740-5015

Contact person MSDS Coordinator

2. Hazard(s) identification

Physical hazards Flammable liquids Category 2

Health hazards Acute toxicity, oral Category 4

Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 2A

Specific target organ toxicity, single exposure Category 3 respiratory tract irritation

Specific target organ toxicity, single exposure Category 3 narcotic effects

Aspiration hazard Category 1

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement Highly flammable liquid and vapor. Harmful if swallowed. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness.

Precautionary statement

Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

Response If swallowed: Immediately call a poison center/doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish.

Storage	Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. May form explosive peroxides. Contains a chemical classified by the US EPA as a suspected possible carcinogen.

Supplemental information

Not applicable.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Furan, Tetrahydro-	109-99-9	35-55
Acetone	67-64-1	10-25
Polyvinyl chloride	9002-86-2	12-20
Cyclohexanone	108-94-1	10-20
Silica, amorphous, fumed	112945-52-5	1-5

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Call a physician or poison control center immediately. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Aspiration may cause pulmonary edema and pneumonitis.
Most important symptoms/effects, acute and delayed	Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Skin irritation. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Highly flammable liquid and vapor. This product contains tetrahydrofuran that may form explosive organic peroxide when exposed to air or light or with age.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Environmental precautions

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Components	Type	Value
Polyvinyl chloride (CAS 9002-86-2)	STEL	5 ppm
		1 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Acetone (CAS 67-64-1)	PEL	2400 mg/m ³	
		1000 ppm	
Cyclohexanone (CAS 108-94-1)	PEL	200 mg/m ³	
		50 ppm	
Furan, Tetrahydro- (CAS 109-99-9)	PEL	590 mg/m ³	
		200 ppm	
Polyvinyl chloride (CAS 9002-86-2)	PEL	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value
Silica, amorphous, fumed (CAS 112945-52-5)	TWA	0.8 mg/m ³ 20 mppcf

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Acetone (CAS 67-64-1)	STEL	750 ppm	
	TWA	500 ppm	
Cyclohexanone (CAS 108-94-1)	STEL	50 ppm	
	TWA	20 ppm	
Furan, Tetrahydro- (CAS 109-99-9)	STEL	100 ppm	
	TWA	50 ppm	
Polyvinyl chloride (CAS 9002-86-2)	TWA	1 mg/m ³	Respirable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Acetone (CAS 67-64-1)	TWA	590 mg/m ³ 250 ppm
Cyclohexanone (CAS 108-94-1)	TWA	100 mg/m ³ 25 ppm
Furan, Tetrahydro- (CAS 109-99-9)	STEL	735 mg/m ³
	TWA	250 ppm 590 mg/m ³ 200 ppm
Silica, amorphous, fumed (CAS 112945-52-5)	TWA	6 mg/m ³

Biological limit values**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	50 mg/l	Acetone	Urine	*
Cyclohexanone (CAS 108-94-1)	80 mg/l	1,2-Cyclohexanediol, with hydrolysis	Urine	*
	8 mg/l	Cyclohexanol, with hydrolysis	Urine	*
Furan, Tetrahydro- (CAS 109-99-9)	2 mg/l	Tetrahydrofuran	Urine	*

* - For sampling details, please see the source document.

Exposure guidelines**US - California OELs: Skin designation**

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Cyclohexanone (CAS 108-94-1) Skin designation applies.

US - Tennessee OELs: Skin designation

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

Furan, Tetrahydro- (CAS 109-99-9) Can be absorbed through the skin.

US. NIOSH: Pocket Guide to Chemical Hazards

Cyclohexanone (CAS 108-94-1)

Can be absorbed through the skin.

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Face shield is recommended. Wear safety glasses with side shields (or goggles).

Skin protection**Hand protection**

Wear appropriate chemical resistant gloves.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties**Appearance****Physical state**

Liquid.

Form

Translucent liquid.

Color

Gray.

Odor

Solvent.

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

151 °F (66.11 °C)

Flash point

-4.0 °F (-20.0 °C)

Evaporation rate

5.5 - 8

Flammability (solid, gas)

Not available.

Upper/lower flammability or explosive limits**Flammability limit - lower (%)**

1.8

Flammability limit - upper (%)

11.8

Explosive limit - lower (%)

Not available.

Explosive limit - upper (%)

Not available.

Vapor pressure

145 mm Hg @ 20 C

Vapor density

2.5

Relative density

0.95 +/- 0.02

Solubility(ies)**Solubility (water)**

Negligible

**Partition coefficient
(n-octanol/water)**

Not available.

Auto-ignition temperature

Not available.

Decomposition temperature

Not available.

Viscosity

600 - 1500 cP

Other information**VOC (Weight %)**

< 510 g/l SCAQMD 1168/M316A

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Acids. Strong oxidizing agents. Ammonia. Amines. Isocyanates. Caustics.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May be fatal if swallowed and enters airways. Headache. Nausea, vomiting. May cause irritation to the respiratory system. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	May be fatal if swallowed and enters airways. Harmful if swallowed. Harmful if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
Symptoms related to the physical, chemical and toxicological characteristics	Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Information on toxicological effects

Acute toxicity	May be fatal if swallowed and enters airways. Narcotic effects. May cause respiratory irritation.
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Components	Species	Test Results
Acetone (CAS 67-64-1)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	20 ml/kg
<i>Inhalation</i>		
LC50	Rat	50 mg/l, 8 Hours
<i>Oral</i>		
LD50	Rat	5800 mg/kg
Cyclohexanone (CAS 108-94-1)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	948 mg/kg
<i>Inhalation</i>		
LC50	Rat	8000 ppm, 4 hours
<i>Oral</i>		
LD50	Rat	1540 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory or skin sensitization	
Respiratory sensitization	Not available.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

In 2012 USEPA Integrated Risk Information System (IRIS) reviewed a two species inhalation lifetime study on THF conducted by NTP (1998). Male rats developed renal tumors and female mice developed liver tumors while neither the female rats nor the male mice showed similar results. Because the carcinogenic mechanisms could not be identified clearly in either species for either tumor, the EPA determined that the male rat and female mouse findings are relevant to the assessment of carcinogenic potential in humans. Therefore, the IRIS review concludes that these data in aggregate indicate that there is "suggestive evidence of carcinogenic potential" following exposure to THF by all routes of exposure.

IARC Monographs. Overall Evaluation of Carcinogenicity

Cyclohexanone (CAS 108-94-1)	3 Not classifiable as to carcinogenicity to humans.
Polyvinyl chloride (CAS 9002-86-2)	3 Not classifiable as to carcinogenicity to humans.
Silica, amorphous, fumed (CAS 112945-52-5)	3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Polyvinyl chloride (CAS 9002-86-2)	Cancer
------------------------------------	--------

Reproductive toxicity

This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure

Narcotic effects. May cause drowsiness and dizziness. Respiratory tract irritation.

Specific target organ toxicity - repeated exposure

Not classified.

Aspiration hazard

May be fatal if swallowed and enters airways.

Chronic effects

Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
Acetone (CAS 67-64-1)		
Aquatic		
Fish	LC50	Fathead minnow (Pimephales promelas) > 100 mg/l, 96 hours
Cyclohexanone (CAS 108-94-1)		
Aquatic		
Fish	LC50	Fathead minnow (Pimephales promelas) 481 - 578 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability

No data is available on the degradability of this product.

Bioaccumulative potential

No data available.

Partition coefficient n-octanol / water (log Kow)

Acetone (CAS 67-64-1)	-0.24
Cyclohexanone (CAS 108-94-1)	0.81
Furan, Tetrahydro- (CAS 109-99-9)	0.46

Mobility in soil

No data available.

Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations

Dispose in accordance with all applicable regulations.

Hazardous waste code

The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number	UN1133
UN proper shipping name	Adhesives
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	II
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	T11, TP1, TP8, TP27
Packaging exceptions	150
Packaging non bulk	201
Packaging bulk	243

IATA

UN number	UN1133
UN proper shipping name	Adhesives
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	No.
ERG Code	3L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN1133
UN proper shipping name	ADHESIVES
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	No.
Marine pollutant	No.
EmS	F-E, S-D
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to

Annex II of MARPOL 73/78 and
the IBC Code

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Polyvinyl chloride (CAS 9002-86-2)	Cancer
	Central nervous system
	Liver
	Blood
	Flammability

CERCLA Hazardous Substance List (40 CFR 302.4)

Acetone (CAS 67-64-1)	LISTED
Cyclohexanone (CAS 108-94-1)	LISTED
Furan, Tetrahydro- (CAS 109-99-9)	LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No
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SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Acetone (CAS 67-64-1) 6532

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Acetone (CAS 67-64-1) 35 %WV

DEA Exempt Chemical Mixtures Code Number

Acetone (CAS 67-64-1) 6532

US state regulations

US. Massachusetts RTK - Substance List

Acetone (CAS 67-64-1)
Cyclohexanone (CAS 108-94-1)
Furan, Tetrahydro- (CAS 109-99-9)
Silica, amorphous, fumed (CAS 112945-52-5)

US. New Jersey Worker and Community Right-to-Know Act

Acetone (CAS 67-64-1)
Cyclohexanone (CAS 108-94-1)
Furan, Tetrahydro- (CAS 109-99-9)
Polyvinyl chloride (CAS 9002-86-2)

US. Pennsylvania Worker and Community Right-to-Know Law

Acetone (CAS 67-64-1)
Cyclohexanone (CAS 108-94-1)
Furan, Tetrahydro- (CAS 109-99-9)
Silica, amorphous, fumed (CAS 112945-52-5)

US. Rhode Island RTK

Acetone (CAS 67-64-1)
Cyclohexanone (CAS 108-94-1)
Furan, Tetrahydro- (CAS 109-99-9)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 27-May-2015

Revision date -

Version # 01

HMIS® ratings
Health: 2
Flammability: 3
Physical hazard: 0

NFPA ratings



Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available. Oatey Co. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.



Oatey® Purple Primer and Oatey® Clear Primer

Oatey Co.

Version No: 1.1

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: 10/19/2023

Print Date: 10/19/2023

S.GHS.USA.EN

SECTION 1 Identification

Product Identifier

Product name	Oatey® Purple Primer and Oatey® Clear Primer
Synonyms	Not Available
Proper shipping name	Flammable liquids, n.o.s. Acetone and Cyclohexanone
Other means of identification	Purple Primer: 30755, 30756, 30757, 30758, 30759, Clear Primer: 30750, 30751, 30752, 30753, 30754

Recommended use of the chemical and restrictions on use

Relevant identified uses	Joining PVC Pipes
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Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	Oatey Co.
Address	20600 Emerald Parkway, Cleveland, OH 44135 United States Ohio 44135 United States
Telephone	216-267-7100
Fax	Not Available
Website	oatey.com
Email	info@oatey.com

Emergency phone number

Association / Organisation	Chemtrec
Emergency telephone numbers	1-800-424-9300 (Outside the US 1-703-527-3887)
Other emergency telephone numbers	1-877-740-5015 (Emergency First Aid)

SECTION 2 Hazard(s) identification

Classification of the substance or mixture

Classification	Flammable Liquids Category 2, Serious Eye Damage/Eye Irritation Category 2A, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, Carcinogenicity Category 2
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Label elements

Hazard pictogram(s)	
Signal word	Danger

Oatey® Purple Primer and Oatey® Clear Primer

Hazard statement(s)

	Highly flammable liquid and vapour.
	Causes serious eye irritation.
	May cause drowsiness or dizziness.
	Suspected of causing cancer.

Hazard(s) not otherwise classified

Repeated exposure may cause skin dryness or cracking. May form explosive peroxides.
Additional details on the carcinogenicity classification are provided in Section 11.

Precautionary statement(s) Prevention

	Obtain special instructions before use.
	Keep away from heat/sparks/open flames/hot surfaces.– No smoking.
	Keep container tightly closed.
	Use only outdoors or in a well-ventilated area.
	Wear protective gloves, protective clothing, eye protection and face protection.
	Ground/bond container and receiving equipment.
	Use explosion-proof electrical/ventilating/lighting/intrinsically safe equipment.
	Use only non-sparking tools.
	Take precautionary measures against static discharge.
	Avoid breathing mist/vapours/spray.
	Do not handle until all safety precautions have been read and understood.
	Wash all exposed external body areas thoroughly after handling.

Precautionary statement(s) Response

	IF exposed or concerned: Get medical advice/ attention.
	In case of fire: Use alcohol resistant foam or normal protein foam to extinguish.
	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.
	If eye irritation persists: Get medical advice/attention.
	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Precautionary statement(s) Storage

	Store in a well-ventilated place. Keep cool.
	Store locked up.

Precautionary statement(s) Disposal

	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.
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SECTION 3 Composition / information on ingredients**Substances**

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
67-64-1*	40-50	<u>Acetone</u>
108-94-1*	20-30	<u>cyclohexanone</u>
109-99-9*	10-20	<u>tetrahydrofuran</u>
78-93-3	10-20	<u>methyl ethyl ketone</u>

Oatey® Purple Primer and Oatey® Clear Primer

SECTION 4 First-aid measures**Description of first aid measures**

Eye Contact	If this product comes in contact with the eyes: <ul style="list-style-type: none"> ▸ Wash out immediately with fresh running water. ▸ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ▸ Seek medical attention without delay; if pain persists or recurs seek medical attention. ▸ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: <ul style="list-style-type: none"> ▸ Immediately remove all contaminated clothing, including footwear. ▸ Flush skin and hair with running water (and soap if available). ▸ Seek medical attention in event of irritation.
Inhalation	<ul style="list-style-type: none"> ▸ If fumes, aerosols or combustion products are inhaled remove from contaminated area. ▸ Other measures are usually unnecessary.
Ingestion	<ul style="list-style-type: none"> ▸ Immediately give a glass of water. ▸ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Most important symptoms and effects, both acute and delayed

See Section 11

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Fire-fighting measures**Extinguishing media**

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog - Large fires only.

Special hazards arising from the substrate or mixture

Fire Incompatibility	<ul style="list-style-type: none"> ▸ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
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Special protective equipment and precautions for fire-fighters

Fire Fighting	<ul style="list-style-type: none"> ▸ Alert Fire Department and tell them location and nature of hazard. ▸ May be violently or explosively reactive. ▸ Wear breathing apparatus plus protective gloves in the event of a fire. ▸ Prevent, by any means available, spillage from entering drains or water course. ▸ Consider evacuation (or protect in place). ▸ Fight fire from a safe distance, with adequate cover. ▸ If safe, switch off electrical equipment until vapour fire hazard removed. ▸ Use water delivered as a fine spray to control the fire and cool adjacent area. ▸ Avoid spraying water onto liquid pools. ▸ Do not approach containers suspected to be hot. ▸ Cool fire exposed containers with water spray from a protected location. ▸ If safe to do so, remove containers from path of fire.
Fire/Explosion Hazard	<ul style="list-style-type: none"> ▸ Liquid and vapour are highly flammable. ▸ Severe fire hazard when exposed to heat, flame and/or oxidisers. ▸ Vapour may travel a considerable distance to source of ignition. ▸ Heating may cause expansion or decomposition leading to violent rupture of containers. ▸ On combustion, may emit toxic fumes of carbon monoxide (CO). <p>May form explosive peroxides Combustion products include: carbon dioxide (CO₂) other pyrolysis products typical of burning organic material.</p>

Continued...

Oatey® Purple Primer and Oatey® Clear Primer

SECTION 6 Accidental release measures**Personal precautions, protective equipment and emergency procedures**

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	<ul style="list-style-type: none"> ▸ Remove all ignition sources. ▸ Clean up all spills immediately. ▸ Avoid breathing vapours and contact with skin and eyes. ▸ Control personal contact with the substance, by using protective equipment. ▸ Contain and absorb small quantities with vermiculite or other absorbent material. ▸ Wipe up. ▸ Collect residues in a flammable waste container.
Major Spills	<ul style="list-style-type: none"> ▸ Clear area of personnel and move upwind. ▸ Alert Fire Department and tell them location and nature of hazard. ▸ May be violently or explosively reactive. ▸ Wear breathing apparatus plus protective gloves. ▸ Prevent, by any means available, spillage from entering drains or water course. ▸ Consider evacuation (or protect in place). ▸ No smoking, naked lights or ignition sources. ▸ Increase ventilation. ▸ Stop leak if safe to do so. ▸ Water spray or fog may be used to disperse /absorb vapour. ▸ Contain spill with sand, earth or vermiculite. ▸ Use only spark-free shovels and explosion proof equipment. ▸ Collect recoverable product into labelled containers for recycling. ▸ Absorb remaining product with sand, earth or vermiculite. ▸ Collect solid residues and seal in labelled drums for disposal. ▸ Wash area and prevent runoff into drains. ▸ If contamination of drains or waterways occurs, advise emergency services.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage**Precautions for safe handling**

Safe handling	<ul style="list-style-type: none"> ▸ Containers, even those that have been emptied, may contain explosive vapours. ▸ Do NOT cut, drill, grind, weld or perform similar operations on or near containers. ▸ Avoid all personal contact, including inhalation. ▸ Wear protective clothing when risk of exposure occurs. ▸ Use in a well-ventilated area. ▸ Prevent concentration in hollows and sumps. ▸ DO NOT enter confined spaces until atmosphere has been checked. ▸ Avoid smoking, naked lights, heat or ignition sources. ▸ When handling, DO NOT eat, drink or smoke. ▸ Vapour may ignite on pumping or pouring due to static electricity. ▸ DO NOT use plastic buckets. ▸ Earth and secure metal containers when dispensing or pouring product. ▸ Use spark-free tools when handling. ▸ Avoid contact with incompatible materials. ▸ Keep containers securely sealed. ▸ Avoid physical damage to containers. ▸ Always wash hands with soap and water after handling. ▸ Work clothes should be laundered separately. ▸ Use good occupational work practice. ▸ Observe manufacturer's storage and handling recommendations contained within this SDS. ▸ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.
Other information	<ul style="list-style-type: none"> ▸ Store in original containers in approved flame-proof area. ▸ No smoking, naked lights, heat or ignition sources. ▸ DO NOT store in pits, depression, basement or areas where vapours may be trapped. ▸ Keep containers securely sealed. ▸ Store away from incompatible materials in a cool, dry well ventilated area.

Continued...

Oatey® Purple Primer and Oatey® Clear Primer

- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storage and handling recommendations contained within this MSDS.
- Tank storage: Tanks must be specifically designed for use with this product. Bulk storage tanks should be diked (bunded). Locate tanks away from heat and other sources of ignition. Cleaning, inspection and maintenance of storage tanks is a specialist operation, which requires the implementation of strict procedures and precautions.
- Keep in a cool place. Electrostatic charges will be generated during pumping. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment to reduce the risk. The vapors in the head space of the storage vessel may lie in the flammable/explosive range and hence may be flammable.
- For containers, or container linings use mild steel, stainless steel. Examples of suitable materials are: high density polyethylene (HDPE), polypropylene (PP), and Viton (FMK), which have been specifically tested for compatibility with this product.
- For container linings, use amine-adduct cured epoxy paint.
- For seals and gaskets use: graphite, PTFE, Viton A, Viton B.
- Unsuitable material: Some synthetic materials may be unsuitable for containers or container linings depending on the material specification and intended use. Examples of materials to avoid are: natural rubber (NR), nitrile rubber (NBR), ethylene propylene rubber (EPDM), polymethyl methacrylate (PMMA), polystyrene, polyvinyl chloride (PVC), polyisobutylene. However, some may be suitable for glove materials.
- Do not cut, drill, grind, weld or perform similar operations on or near containers. Containers, even those that have been emptied, can contain explosive vapors.

Conditions for safe storage, including any incompatibilities

Suitable container	<ul style="list-style-type: none"> ▸ Packing as supplied by manufacturer. ▸ Plastic containers may only be used if approved for flammable liquid. ▸ Check that containers are clearly labelled and free from leaks.
Storage incompatibility	<p>Methyl ethyl ketone:</p> <ul style="list-style-type: none"> ▸ reacts violently with strong oxidisers, aldehydes, nitric acid, perchloric acid, potassium tert-butoxide, oleum ▸ is incompatible with inorganic acids, aliphatic amines, ammonia, caustics, isocyanates, pyridines, chlorosulfonic acid ▸ forms unstable peroxides in storage, or on contact with propanol or hydrogen peroxide ▸ attacks some plastics ▸ may generate electrostatic charges, due to low conductivity, on flow or agitation ▸ Avoid strong bases. ▸ Avoid reaction with oxidising agents

SECTION 8 Exposure controls / personal protection**Control parameters****Occupational Exposure Limits (OEL)****INGREDIENT DATA**

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US OSHA Permissible Exposure Limits (PELs) Table Z-1	Acetone	Acetone	1000 ppm / 2400 mg/m ³	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	Acetone	Acetone	250 ppm / 590 mg/m ³	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	cyclohexanone	Cyclohexanone	50 ppm / 200 mg/m ³	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	cyclohexanone	Cyclohexanone	25 ppm / 100 mg/m ³	Not Available	Not Available	[skin]
US OSHA Permissible Exposure Limits (PELs) Table Z-1	tetrahydrofuran	Tetrahydrofuran	200 ppm / 590 mg/m ³	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	tetrahydrofuran	Tetrahydrofuran	200 ppm / 590 mg/m ³	735 mg/m ³ / 250 ppm	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	methyl ethyl ketone	2-Butanone (Methyl ethyl ketone)	200 ppm / 590 mg/m ³	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	methyl ethyl ketone	2-Butanone	200 ppm / 590 mg/m ³	885 mg/m ³ / 300 ppm	Not Available	Not Available

Exposure controls

Continued...

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Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

- Process controls which involve changing the way a job activity or process is done to reduce the risk.
- Enclosure and/or isolation of emission source which keeps a selected hazard 'physically' away from the worker and ventilation that strategically 'adds' and 'removes' air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.
- Employers may need to use multiple types of controls to prevent employee overexposure.
- For flammable liquids and flammable gases, local exhaust ventilation or a process enclosure ventilation system may be required. Ventilation equipment should be explosion-resistant.
- Air contaminants generated in the workplace possess varying 'escape' velocities which, in turn, determine the 'capture velocities' of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant:	Air Speed:
solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 f/min.)
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)

Appropriate engineering controls

Within each range the appropriate value depends on:

Lower end of the range	Upper end of the range
1: Room air currents minimal or favourable to capture	1: Disturbing room air currents
2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity
3: Intermittent, low production.	3: High production, heavy use
4: Large hood or large air mass in motion	4: Small hood-local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

- Adequate ventilation is typically taken to be that which limits the average concentration to no more than 25% of the LEL within the building, room or enclosure containing the dangerous substance.
- Ventilation for plant and machinery is normally considered adequate if it limits the average concentration of any dangerous substance that might potentially be present to no more than 25% of the LEL. However, an increase up to a maximum 50% LEL can be acceptable where additional safeguards are provided to prevent the formation of a hazardous explosive atmosphere. For example, gas detectors linked to emergency shutdown of the process might be used together with maintaining or increasing the exhaust ventilation on solvent evaporating ovens and gas turbine enclosures.
- Temporary exhaust ventilation systems may be provided for non-routine higher-risk activities, such as cleaning, repair or maintenance in tanks or other confined spaces or in an emergency after a release. The work procedures for such activities should be carefully considered.. The atmosphere should be continuously monitored to ensure that ventilation is adequate and the area remains safe. Where workers will enter the space, the ventilation should ensure that the concentration of the dangerous substance does not exceed 10% of the LEL (irrespective of the provision of suitable breathing apparatus)

Individual protection measures, such as personal protective equipment**Eye and face protection**

- Safety glasses with side shields.
- Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent]
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

Skin protection

See Hand protection below

Continued...

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Hands/feet protection	<ul style="list-style-type: none"> ▸ Wear chemical protective gloves, e.g. PVC. ▸ Wear safety footwear or safety gumboots, e.g. Rubber
Body protection	See Other protection below
Other protection	<ul style="list-style-type: none"> ▸ Overalls. ▸ PVC Apron. ▸ PVC protective suit may be required if exposure severe. ▸ Eyewash unit. ▸ Ensure there is ready access to a safety shower. ▸ Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity. ▸ For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets). ▸ Non sparking safety or conductive footwear should be considered. Conductive footwear describes a boot or shoe with a sole made from a conductive compound chemically bound to the bottom components, for permanent control to electrically ground the foot and shall dissipate static electricity from the body to reduce the possibility of ignition of volatile compounds. Electrical resistance must range between 0 to 500,000 ohms. Conductive shoes should be stored in lockers close to the room in which they are worn. Personnel who have been issued conductive footwear should not wear them from their place of work to their homes and return.

Respiratory protection

Type A Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

SECTION 9 Physical and chemical properties**Information on basic physical and chemical properties**

Appearance	Purple or clear transparent liquid		
Physical state	Liquid	Relative density (Water = 1)	0.84 +/- 0.02 @ 20°C
Odour	Solvent	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cps)	<100
Initial boiling point and boiling range (°C)	66	Molecular weight (g/mol)	Not Available
Flash point (°C)	-10 - -5	Taste	Not Available
Evaporation rate	5.5-8.0	Explosive properties	Not Available
Flammability	HIGHLY FLAMMABLE.	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure	145 mmHG @ 20°C	Gas group	Not Available
Solubility in water	Partly miscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	2.5	VOC g/L	<550

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	<ul style="list-style-type: none"> ▸ Unstable in the presence of incompatible materials. ▸ Product is considered stable. ▸ Hazardous polymerisation will not occur.

Continued...

Oatey® Purple Primer and Oatey® Clear Primer

Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 Toxicological information**Information on toxicological effects**

Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract. Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.
Ingestion	The material has NOT been classified as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence.
Skin Contact	Skin contact is not thought to have harmful health effects; the material may still produce health damage following entry through wounds, lesions or abrasions. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	This material can cause eye irritation and damage in some persons.
Chronic	Repeated exposure may cause skin dryness or cracking. Suspected of causing cancer. In 2012 USEPA Integrated Risk Information System (IRIS) reviewed a two species inhalation lifetime study on THF conducted by NTP (1998). Male rats developed renal tumors and female mice developed liver tumors while neither the female rats nor the male mice showed similar results. Because the carcinogenic mechanisms could not be identified clearly in either species for either tumor, the EPA determined that the male rat and female mouse findings are relevant to the assessment of carcinogenic potential in humans. Therefore, the IRIS review concludes that these data in aggregate indicate that there is 'suggestive evidence of carcinogenic potential' following exposure to THF by all routes of exposure.

Carcinogenicity	Chemical Name	IARC	NTP	OSHA
	Acetone	Not listed	Not listed	Not listed
	Cyclohexanone	Group 3 -Not classifiable as to its carcinogenicity to humans	Not listed	Not listed
	Tetrahydrofuran	Group 2B - Possibly carcinogenic to humans	Not listed	Not listed
	Methyl ethyl ketone	Not listed	Not listed	Not listed

Acute Toxicity	✗	Carcinogenicity	✓
Skin Irritation/Corrosion	✗	Reproductivity	✗
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	✓
Respiratory or Skin sensitisation	✗	STOT - Repeated Exposure	✗
Mutagenicity	✗	Aspiration Hazard	✗

Legend: ✗ – Data either not available or does not fill the criteria for classification
 ✓ – Data available to make classification

SECTION 12 Ecological information**Toxicity**

Oatey® Purple Primer and Oatey® Clear Primer	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available

Continued...

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	Endpoint	Test Duration (hr)	Species	Value	Source
Acetone	LC50	96h	Fish	3744.6-5000.7mg/L	4
	NOEC(ECx)	12h	Fish	0.001mg/L	4
	EC50	72h	Algae or other aquatic plants	5600-10000mg/l	4
	EC50	48h	Crustacea	6098.4mg/L	5
	EC50	96h	Algae or other aquatic plants	9.873-27.684mg/l	4
cyclohexanone	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	17.7-85.6mg/l	4
	EC50	48h	Crustacea	>100mg/l	2
	LC50	96h	Fish	481-578mg/l	4
	EC10(ECx)	72h	Algae or other aquatic plants	0.4-7.93mg/l	4
tetrahydrofuran	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96h	Fish	1970-2360mg/l	4
	NOEC(ECx)	24h	Fish	>=5mg/l	1
methyl ethyl ketone	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	1220mg/l	2
	EC50	48h	Crustacea	308mg/l	2
	EC50	96h	Algae or other aquatic plants	>500mg/l	4
	NOEC(ECx)	48h	Crustacea	68mg/l	2
	LC50	96h	Fish	>324mg/L	4
Legend:	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data				

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
Acetone	LOW (Half-life = 14 days)	MEDIUM (Half-life = 116.25 days)
cyclohexanone	LOW	LOW
tetrahydrofuran	LOW	LOW
methyl ethyl ketone	LOW (Half-life = 14 days)	LOW (Half-life = 26.75 days)

Bioaccumulative potential

Ingredient	Bioaccumulation
Acetone	LOW (BCF = 0.69)
cyclohexanone	LOW (BCF = 2.45)
tetrahydrofuran	LOW (LogKOW = 0.46)
methyl ethyl ketone	LOW (LogKOW = 0.29)

Mobility in soil

Ingredient	Mobility
Acetone	HIGH (KOC = 1.981)
cyclohexanone	LOW (KOC = 15.15)
tetrahydrofuran	LOW (KOC = 4.881)
methyl ethyl ketone	MEDIUM (KOC = 3.827)

Continued...

Oatey® Purple Primer and Oatey® Clear Primer

SECTION 13 Disposal considerations**Waste treatment methods**

Product / Packaging disposal	<ul style="list-style-type: none"> ▶ Containers may still present a chemical hazard/ danger when empty. ▶ Return to supplier for reuse/ recycling if possible. <p>Otherwise:</p> <ul style="list-style-type: none"> ▶ If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. ▶ Where possible retain label warnings and SDS and observe all notices pertaining to the product. ▶ DO NOT allow wash water from cleaning or process equipment to enter drains. ▶ It may be necessary to collect all wash water for treatment before disposal. ▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. ▶ Where in doubt contact the responsible authority. ▶ Recycle wherever possible. ▶ Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. ▶ Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material). ▶ Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.
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SECTION 14 Transport information**Labels Required**

Marine Pollutant	 NO
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Shipping container and transport vehicle placarding and labeling may vary from the below information. Products that are regulated for transport will be packaged and marked as Dangerous Goods in Limited Quantities according to US DOT, IATA and IMDG regulations. In case of reshipment, it is the responsibility of the shipper to determine the appropriate labels and markings in accordance with applicable transport regulations.

Land transport (DOT)

14.1. UN number or ID number	1993	
14.2. UN proper shipping name	Flammable liquids, n.o.s. Acetone and Cyclohexanone	
14.3. Transport hazard class(es)	Class	3
	Subsidiary Hazard	Not Applicable
14.4. Packing group	II	
14.5. Environmental hazard	Not Applicable	
14.6. Special precautions for user	Hazard Label	3
	Special provisions	IB2, T7, TP1, TP8, TP28

Air transport (ICAO-IATA / DGR)

14.1. UN number	1993	
14.2. UN proper shipping name	Flammable liquid, n.o.s. * Acetone and Cyclohexanone	
14.3. Transport hazard class(es)	ICAO/IATA Class	3
	ICAO / IATA Subsidiary Hazard	Not Applicable
	ERG Code	3H
14.4. Packing group	II	
14.5. Environmental hazard	Not Applicable	

Continued...

Oatey® Purple Primer and Oatey® Clear Primer

14.6. Special precautions for user	Special provisions	A3
	Cargo Only Packing Instructions	364
	Cargo Only Maximum Qty / Pack	60 L
	Passenger and Cargo Packing Instructions	353
	Passenger and Cargo Maximum Qty / Pack	5 L
	Passenger and Cargo Limited Quantity Packing Instructions	Y341
	Passenger and Cargo Limited Maximum Qty / Pack	1 L

Sea transport (IMDG-Code / GGVSee)

14.1. UN number	1993	
14.2. UN proper shipping name	FLAMMABLE LIQUID, N.O.S. Acetone and Cyclohexanone	
14.3. Transport hazard class(es)	IMDG Class	3
	IMDG Subsidiary Hazard	Not Applicable
14.4. Packing group	II	
14.5 Environmental hazard	Not Applicable	
14.6. Special precautions for user	EMS Number	F-E, S-E
	Special provisions	274
	Limited Quantities	1 L

SECTION 15 Regulatory information**Safety, health and environmental regulations / legislation specific for the substance or mixture****Acetone is found on the following regulatory lists**

US - Massachusetts - Right To Know Listed Chemicals
 US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)
 US DOE Temporary Emergency Exposure Limits (TEELs)
 US Drug Enforcement Administration (DEA) List I and II Regulated Chemicals
 US EPA Integrated Risk Information System (IRIS)

US NIOSH Recommended Exposure Limits (RELs)
 US OSHA Permissible Exposure Limits (PELs) Table Z-1
 US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
 US TSCA Section 4/12 (b) - Sunset Dates/Status

cyclohexanone is found on the following regulatory lists

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic
 US - Massachusetts - Right To Know Listed Chemicals
 US DOE Temporary Emergency Exposure Limits (TEELs)
 US EPA Integrated Risk Information System (IRIS)

US NIOSH Recommended Exposure Limits (RELs)
 US OSHA Permissible Exposure Limits (PELs) Table Z-1
 US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

tetrahydrofuran is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List
 International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
 International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans
 US - California Proposition 65 - Carcinogens
 US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List
 US - Massachusetts - Right To Know Listed Chemicals

US DOE Temporary Emergency Exposure Limits (TEELs)
 US EPA Integrated Risk Information System (IRIS)
 US NIOSH Recommended Exposure Limits (RELs)
 US OSHA Permissible Exposure Limits (PELs) Table Z-1
 US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
 US TSCA Section 4/12 (b) - Sunset Dates/Status

methyl ethyl ketone is found on the following regulatory lists

Continued...

Oatey® Purple Primer and Oatey® Clear Primer

US - California Hazardous Air Pollutants Identified as Toxic Air Contaminants
 US - Massachusetts - Right To Know Listed Chemicals
 US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)
 US DOE Temporary Emergency Exposure Limits (TEELs)
 US Drug Enforcement Administration (DEA) List I and II Regulated Chemicals

US EPA Integrated Risk Information System (IRIS)
 US NIOSH Recommended Exposure Limits (RELs)
 US OSHA Permissible Exposure Limits (PELs) Table Z-1
 US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

Federal Regulations**Superfund Amendments and Reauthorization Act of 1986 (SARA)****Section 311/312 hazard categories**

Flammable (Gases, Aerosols, Liquids, or Solids)	Yes
Gas under pressure	No
Explosive	No
Self-heating	No
Pyrophoric (Liquid or Solid)	No
Pyrophoric Gas	No
Corrosive to metal	No
Oxidizer (Liquid, Solid or Gas)	No
Organic Peroxide	No
Self-reactive	No
In contact with water emits flammable gas	No
Combustible Dust	No
Carcinogenicity	Yes
Acute toxicity (any route of exposure)	No
Reproductive toxicity	No
Skin Corrosion or Irritation	No
Respiratory or Skin Sensitization	No
Serious eye damage or eye irritation	Yes
Specific target organ toxicity (single or repeated exposure)	Yes
Aspiration Hazard	No
Germ cell mutagenicity	No
Simple Asphyxiant	No
Hazards Not Otherwise Classified	Yes

US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

Name	Reportable Quantity in Pounds (lb)	Reportable Quantity in kg
Acetone	5000	2270
cyclohexanone	5000	2270
tetrahydrofuran	1000	454
methyl ethyl ketone	5000	2270
methyl ethyl ketone	5000	2270

State Regulations**US. California Proposition 65**

 **WARNING:** This product can expose you to chemicals including tetrahydrofuran, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov

National Inventory Status

National Inventory	Status
USA - TSCA	Yes
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.

Continued...

Oatey® Purple Primer and Oatey® Clear Primer**SECTION 16 Other information**

Initial Date	09/28/2023
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Other information

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

PC - TWA: Permissible Concentration-Time Weighted Average
PC - STEL: Permissible Concentration-Short Term Exposure Limit
IARC: International Agency for Research on Cancer
ACGIH: American Conference of Governmental Industrial Hygienists
STEL: Short Term Exposure Limit
TEEL: Temporary Emergency Exposure Limit,
IDLH: Immediately Dangerous to Life or Health Concentrations
ES: Exposure Standard
OSF: Odour Safety Factor
NOAEL :No Observed Adverse Effect Level
LOAEL: Lowest Observed Adverse Effect Level
TLV: Threshold Limit Value
LOD: Limit Of Detection
OTV: Odour Threshold Value
BCF: BioConcentration Factors
BEI: Biological Exposure Index
DNEL: Derived No-Effect Level
PNEC: Predicted no-effect concentration
AIIC: Australian Inventory of Industrial Chemicals
DSL: Domestic Substances List
NDSL: Non-Domestic Substances List
IECSC: Inventory of Existing Chemical Substance in China
EINECS: European INventory of Existing Commercial chemical Substances
ELINCS: European List of Notified Chemical Substances
NLP: No-Longer Polymers
ENCS: Existing and New Chemical Substances Inventory
KECI: Korea Existing Chemicals Inventory
NZIoC: New Zealand Inventory of Chemicals
PICCS: Philippine Inventory of Chemicals and Chemical Substances
TSCA: Toxic Substances Control Act
TCSI: Taiwan Chemical Substance Inventory
INSQ: Inventario Nacional de Sustancias Químicas
NCI: National Chemical Inventory
FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances



CEMENT & CONCRETE PRODUCTS™

C1: Portland Cement Based Concrete Products

SAFETY DATA SHEET (Complies with OSHA 29 CFR 1910.1200)

SECTION I: PRODUCT IDENTIFICATION

The QUIKRETE® Companies
5 Concourse Parkway, Suite 1900
Atlanta, GA 30328

Emergency Telephone Number
INFOTRAC (800) 535-5053
Information Telephone Number
(800) 282-5828

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Revision: Feb-23

QUIKRETE® Product Name

Item #(s)

Fence Post Mix	1005
Fiber-Reinforced Concrete Mix	1006
Crack Resistant Concrete Mix	1006-80, -50
Pro-Finish Crack Resistant Concrete Mix	1006-68
QUIKRETE 5000 Concrete Mix	1007-80, -50
QUIKRETE 6000 Concrete Mix	1007
Pro-Finish QUIKRETE 5000	1007-85
Lightweight Concrete Mix	1008
Basic Concrete Mix	1015
Maximum Yield Concrete Mix	1100-80
Concrete Mix	1101-10, -20, -40, -60, -80, -90
Green Concrete Mix	1101-63, -73
B-Crete	1101-81
Red-E-Crete Concrete mix	1101-91, -87; 1141-62, -63, -92, -93, Bulk NR810035
Countertop Mix	1106-80
Form & Pour Concrete Mix MS	1120-80/NR810065
All-Star Concrete Mix	1121
Rip Rap	1129
Rip Rap Scrim	1134-80
Handicrete Concrete Mix	1141-59, -60, -80
RiteMix Concrete	1171-60
Fiber Reinforced Deck Mix	1251-80, -81
All-Star Crack Resistant Concrete Mix	1470-03
All-Star 5000 Concrete Mix	1470-01
Moxcrete	40810015
FlowCrete 5000 (Mix 801)	8080026/NR80026
Mix 801 Concrete Mix	NR81001

Product Use: Portland cement-based, aggregated products for general construction

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QUIKRETE Companies, LLC

2/10/2023

See most current revision of this document at www.QUIKRETE.com.

SECTION II - HAZARD IDENTIFICATION

Hazard-determining components of labeling: Silica, Portland cement

2.1 Classification of the substance or mixture

Carcinogen – Category 1A

Skin Corrosion – Category 1B

Eye Damage – Category 1

Skin Sensitization – Category 1B

Specific Target Organ Toxicity Repeat Exposure – Category 1

Specific Target Organ Toxicity: Single Exposure – Category 3

2.2a Signal word DANGER!

2.2b Hazard Statements

May cause cancer through chronic inhalation

Causes severe skin burns and serious eye damage

May cause an allergic skin reaction

Causes damage to lungs through prolonged or repeated inhalation

May cause respiratory irritation

Harmful if swallowed.

2.2c Pictograms



2.2d Precautionary statements

Do not handle until all safety precautions have been read and understood.

Wear impervious gloves, such as nitrile. Wear eye protection, protective clothing and rubber boots.

Do not eat, drink or smoke when using this product.

Wash thoroughly after handling.

Use only in a well-ventilated area. Wear a NIOSH approved respirator (mask) such as N95 in poorly ventilated areas, when used for extended periods, when use is frequent, or when permissible exposure limits may be exceeded.

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Do not breathe dust.

If swallowed: Rinse mouth. Do NOT induce vomiting.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If on skin (or hair): Remove immediately all contaminated clothing and wash before re-use. Rinse skin or hair with water.

If significant skin irritation or rash occurs: get medical attention.

Immediately seek medical attention if symptoms are significant or persist.

Store in a well-ventilated place. Keep container tightly closed.

Dispose of contents/containers in accordance with all regulations.

2.3 Additional Information

The Portland cement in this product can cause serious, potentially irreversible damage to skin, eye, respiratory and digestive tracts due to chemical (caustic) burns, including third degree burns.

Burns from Portland cement may not cause immediate pain or discomfort. You cannot rely on pain to alert you to cement burns. Portland cement can cause dermatitis or sensitization. Therefore precautions must be taken to prevent all contact with Portland cement. Cement burns can become worse even after contact has ended. If there is contact with this product, immediately remove all product from body and thoroughly rinse with water. If you experience or suspect a cement burn or inflammation you should immediately see a health care professional.

Skin burns and irritation may be caused by brief exposure, though often are caused by extended exposure of 15 minutes, an hour, or longer. Interaction of Portland cement with water or sweat releases a caustic solution which produces the burns or irritation. Any extended exposure should be treated as though a burn has occurred until determined otherwise.

Skin contact with Portland cement can also cause inflammation of the skin, referred to as dermatitis. Signs and symptoms of dermatitis can include itching, redness, swelling, blisters, scaling, and other changes in the normal condition of the skin. Signs and symptoms of burns include the above and whitening, yellowing, blackening, peeling or cracking of skin.

The Portland cement in this product may cause allergic contact dermatitis in sensitized individuals. This overreaction of the immune system can lead to severe inflammation. Sensitization may result from a single exposure to the low levels of Cr (VI) in Portland cement or repeated exposures over months or years. Sensitization is long lasting and, after sensitization, even very small quantities can trigger the dermatitis. Sensitization is uncommon. Individuals who experience skin problems, including seemingly minor ones, are advised to seek medical attention.

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2.3a HNOC – Hazards not otherwise classified: Not applicable

2.3b Unknown Acute Toxicity: None

SECTION III - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components	CAS No.	% by Weight
Sand, Silica, Quartz	14808-60-7	60-100*
Portland Cement	65997 15 1	10-30*
Fly Ash	68131-74-8	5-10*

*The concentrations ranges are provided due to batch-to-batch variability.

None of the constituents of this material are of unknown toxicity.

SECTION IV – FIRST AID MEASURES

4.1 Description of the first-aid measures**General information:**

After inhalation: Remove person to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration. In case of unconsciousness, place patient stably in side position for transportation.

After skin contact: Wash skin with cool water and pH-neutral soap or a mild detergent. If significant skin irritation or rash occurs: get medical attention.

After eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

After swallowing: Do not induce vomiting. If conscious, have the victim drink plenty of water and call a physician immediately. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms/effects, acute and delayed

Inhalation: May cause respiratory tract irritation. Causes damage to organs through prolonged or repeated inhalation. This product contains crystalline silica. Prolonged or repeated inhalation of respirable silica from this product can cause silicosis.

Skin contact: Skin burns and irritation may be caused by brief exposure, though often are caused by extended exposure of 15 minutes, an hour, or longer.

Eye Contact: Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Ingestion: May be harmful if swallowed. Ingestion may cause discomfort and/or distress, nausea or vomiting.

4.3 Indication of immediate medical attention and special treatment needed:

Immediately seek medical advice if symptoms are significant or persist.

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SECTION V - FIRE FIGHTING MEASURES

5.1 Flammability of the Product: Non-flammable and non-combustible**5.2 Suitable extinguishing agents:** Treat for surrounding material**5.3 Special hazards arising from the substance or mixture:** None**5.3a Products of Combustion:** None**5.3b Explosion Hazards in Presence of Various Substances:** Non-explosive in presence of shocks

SECTION VI – ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures: Wear personal protective equipment (See section VIII). Keep unprotected persons away.**6.2 Methods and material for containment and cleaning up:**

Do not allow to enter sewers/ surface or ground water. Dispose of unwanted materials and containers properly in accordance with all regulations.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND STORAGE

7.1 Handling**Precautions for safe handling:** Ensure good ventilation/exhaustion at the workplace. DO NOT BREATHE DUST. In dusty environments, the use of an OSHA, MSHA or NIOSH approved respirator and tight fitting goggles is recommended. Wear appropriate PPE (See section 8). Do not mix with other chemical products, except as indicated by the manufacturer. Do not get in eyes, on skin or clothing. Good housekeeping is important to prevent accumulation of dust.**7.2 Storage****Requirements to be met by storerooms and receptacles:** No special requirements.**Information about storage in one common storage facility:** Not required.**Further information about storage conditions:** Keep out of the reach of children. Keep container tightly closed and prevent exposure to humidity. Do not allow water to contact the product until time of use to preserve product utility.

SECTION VIII – EXPOSURE CONTROL MEASURES / PERSONAL PROTECTION

8.1 Components with limit values that require monitoring at the workplace:

Hazardous Components	CAS No.	PEL (OSHA) mg/M ³	TLV (ACGIH) mg/M ³
Silica Sand, crystalline	14808-60-7	0.05	0.025 (resp)
Portland Cement	65997-15-1	5 (resp) 15 (total)	10 (resp)
Fly Ash	68131-74-8	N/A	N/A

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QUIKRETE Companies, LLC

2/10/2023

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8.2 Exposure Controls

Use ventilation adequate to keep exposures below recommended exposure limits.

8.3 General protective and hygienic measures

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

8.3a Personal protective equipment

Protection of hands and feet:

Wear gloves of adequate length to offer appropriate skin protection from splashes. Nitrile, Butyl and PVC gloves have been found to offer adequate protection for incidental contact. Wear rubber boots when stepping in concrete. You cannot rely on pain to alert you to cement burns. Portland cement can cause dermatitis or sensitization.

Eye protection:

Wear approved eye protection (properly fitted dust- or splash-proof chemical safety glasses).

Respiratory protection:

Wear a NIOSH approved respirator (mask) such as N95 in poorly ventilated areas, when used for extended periods, when use is frequent, or when permissible exposure limits may be exceeded. Respirators should be selected by and used under the direction of a trained health and safety professional, following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2).

SECTION IX - PHYSICAL/CHEMICAL CHARACTERISTICS

General Information

Appearance

Form: Granular Solid
Color: Gray to gray-brown colored
Odor: None

pH-value at 20°C (68 °F): 13 (10%)

Boiling point/Boiling range: Not applicable

Flash point: Not applicable

Auto igniting: Product is not self-igniting

Vapor pressure at 21°C (70°F) Not available

Density at 25°C (77 °F): 2.6 to 3.15

Solubility in / Miscibility with

Water: Insoluble

VOC content: 0 g/L VOC

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SECTION X – STABILITY AND REACTIVITY

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal storage conditions. Keep in dry storage.

10.3 Possibility of hazardous reaction

No dangerous reaction known under conditions of normal use.

10.4 Thermal decomposition / conditions to be avoided

No decomposition if used according to specifications.

10.5 Incompatible materials

Contact of silica with powerful oxidizing agents such as fluorine, chlorine trifluoride, manganese trioxide, or oxygen difluoride may cause fires

10.6 Hazardous Decomposition or By-products

Silica will dissolve in Hydrofluoric Acid and produce a corrosive gas – silicon tetrafluoride.

SECTION XI – TOXICOLOGICAL INFORMATION

11.1 Exposure Routes: Skin contact, skin adsorption, eye contact, inhalation, or ingestion.

11.2 Symptoms related to physical/chemical/toxicological characteristics:

Inhalation: May cause respiratory tract irritation. Causes damage to organs through prolonged or repeated exposure. This product contains crystalline silica. Prolonged or repeated inhalation of respirable silica from this product can cause silicosis.

Skin contact: Causes severe skin burns. Handling can cause dry skin, discomfort, irritation, and dermatitis. May cause sensitization by skin contact. Product becomes extremely alkaline when exposed to moisture, and can cause alkali burns and affect the mucous membranes.

Eye Contact: Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Ingestion: Harmful if swallowed. Ingestion may cause discomfort and/or distress, nausea or vomiting.

11.3 Delayed, immediate and chronic effects of short-term and long-term exposure**Short Term**

Skin Corrosion/Irritation: Causes severe skin burns.

Serious Eye Damage/Irritation: Causes severe eye damage.

Respiratory Sensitization: Not available

Skin Sensitization: May cause an allergic skin reaction.

Specific Target Organ Toxicity-Single Exposure: (Category 3) May cause respiratory irritation.

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Aspiration Hazard: Not available

Long Term

Carcinogenicity: May cause cancer through chronic inhalation.

Germ Cell Mutagenicity: Not available

Reproductive Toxicity: Not available

Specific Target Organ Toxicity- Repeated Exposure: (Category 1) Causes damage to lungs through prolonged/repeated exposure

Synergistic/Antagonistic Effects: Not available.

SECTION XII – ECOLOGICAL INFORMATION

12.1 Ecotoxicity

May cause long-term adverse effects to the aquatic environment. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Must not reach bodies of water or drainage ditch undiluted or un-neutralized

12.2 Persistence and degradability

No further relevant information available.

12.3 Bioaccumulative potential:

No further relevant information available.

12.4 Mobility in soil

No further relevant information available.

12.5 Other Adverse Effects

No further relevant information available.

SECTION XIII – DISPOSAL CONSIDERATIONS

13.1 Waste Disposal Method

The packaging and material may be land filled; however, material should be covered to minimize generation of airborne dust. This product is not classified as a hazardous waste under the authority of the RCRA (40CFR 261) or CERCLA (40CFR 117&302). Disposal must be made in accordance with local, state and federal regulations.

13.2 Other disposal considerations**Uncleaned packaging**

Recommendation: Disposal must be made in accordance with local, state and federal regulations.

Recommended cleansing agent: Water, if necessary with cleansing agents.



CEMENT & CONCRETE PRODUCTS™

SECTION XIV – TRANSPORT INFORMATION

	DOT (U.S.)	TDG (Canada)
UN-Number	Not Regulated	Not Regulated
UN proper shipping name	Not Regulated	Not Regulated
Transport Hazard Class(es)	Not Regulated	Not Regulated
Packing Group (if applicable)	Not Regulated	Not Regulated

14.1 Environmental hazards:

Not Available

14.2 Transport in bulk according to Annex II of Marpol 73/78 and the IBC Code

Not available

14.3 Special precautions for user

Do not handle until all safety precautions have been read and understood.

SECTION XV – OTHER REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations/Legislations specific for the chemical**Canada**

WHMIS Classification: Considered to be a hazardous material under the Hazardous Products Act as defined by the Hazardous Products Regulations and subject to the requirements of Health Canada's Workplace Hazardous Material Information (WHMIS). This document complies with the WHMIS requirements of the Hazardous Products Act (HPA) and the HPR.

15.2 US Federal Information**SARA 302/311/312/313 Components**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302, 311, 312 or 313.

RCRA: Crystalline silica (quartz) is not classified as a hazardous waste under the Resource Conservation and Recovery Act, or its regulations, 40 CFR §261 et seq.

CERCLA: Crystalline silica (quartz) is not classified as a hazardous substance under regulations of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 40 CFR §302.

Emergency Planning and Community Right to Know Act (SARA Title III): Crystalline silica (quartz) is not an extremely hazardous substance under Section 302 and is not a toxic chemical subject to the requirements of Section 313.

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FDA: Silica is included in the list of substances that may be included in coatings used in food contact surfaces, 21 CFR §175.300(b)(3)(xxvi).

NTP: Respirable crystalline silica, primarily quartz dusts occurring in industrial and occupational settings, is classified as Known to be a Human Carcinogen.

OSHA Carcinogen: Crystalline silica (quartz) is not listed.

15.3 State Right to Know Laws

California Prop. 65 Components



WARNING: This product can expose you to chemicals including crystalline silica which is known to the State of California to cause cancer and hexavalent chromium compounds which are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California Inhalation Reference Exposure Level (REL): California established a chronic REL of 3 µg for silica (crystalline, respirable). A chronic REL is an airborne level of a substance at or below which no adverse health effects are anticipated in individuals indefinitely exposed to the substance at that level.

Massachusetts Toxic Use Reduction Act: Silica, crystalline (respirable size, <10 microns) is "toxic" for purposes of the Massachusetts Toxic Use Reduction Act.

15.4 Global Inventories

DSL All components of this product are on the Canadian DSL list.

TSCA No.: Crystalline silica (quartz) appears on the EPA TSCA inventory under the CAS No. 14808-60-7. All constituents are listed in the TSCA inventory.

SECTION XVI – OTHER INFORMATION

Last Updated: February 10, 2023

NOTE: The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to silica contained in our products.

Prepared by

The QUIKRETE Companies, LLC

End of SDS

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QUIKRETE Companies, LLC

2/10/2023



SAFETY DATA SHEET

1. Identification

Product identifier	Radiator Anti Rust and Water Pump Lubricant
Other means of identification	
Product code	05335
Recommended use	Radiator anti-rust and water pump lubricant
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Manufactured or sold by:	
Company name	CRC Industries, Inc.
Address	885 Louis Dr. Warminster, PA 18974 US
Telephone	
General Information	215-674-4300
Technical Assistance	800-521-3168
Customer Service	800-272-4620
24-Hour Emergency (CHEMTREC)	800-424-9300 (US) 703-527-3887 (International)
Website	www.crcindustries.com

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Aspiration hazard	Category 1
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		



Signal word	Danger
Hazard statement	May be fatal if swallowed and enters airways.
Precautionary statement	
Prevention	Use with adequate ventilation. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. Observe good industrial hygiene practices.
Response	If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting.
Storage	Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national regulations.
Hazard(s) not otherwise classified (HNOC)	None known.

3. Composition/information on ingredients

Mixtures

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
Skin contact	Rinse skin with water/shower. Get medical attention if irritation develops and persists.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.

Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Aspiration may cause pulmonary edema and pneumonitis.
Most important symptoms/effects, acute and delayed	
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions	Move containers from fire area if you can do so without risk.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
Environmental precautions	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices. Use care in handling/storage. For product usage instructions, please see the product label.
Conditions for safe storage, including any incompatibilities	Keep container tightly closed. Store away from incompatible materials (see Section 10 of the SDS).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection	
Hand protection	Wear protective gloves such as: Nitrile. Neoprene. Rubber.
Other	Wear suitable protective clothing.
Respiratory protection	If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid.
Color	Milky white.
Odor	Mild petroleum.
Odor threshold	Not available.
pH	9.8
Melting point/freezing point	-90.6 °F (-68.1 °C) estimated
Initial boiling point and boiling range	212 °F (100 °C) estimated
Flash point	None (Tag Closed Cup)
Evaporation rate	Slow.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Vapor pressure	18.8 hPa estimated
Vapor density	Not available.
Relative density	0.98
Solubility (water)	Emulsifiable.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	302 °F (150 °C) estimated
Decomposition temperature	Not available.
Viscosity (kinematic)	Not available.
Percent volatile	97.6 % estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Strong acids.
Hazardous decomposition products	Carbon oxides. Sulfur oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	Prolonged skin contact may cause temporary irritation.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics	Aspiration may cause pulmonary edema and pneumonitis.
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Information on toxicological effects

Acute toxicity	May be fatal if swallowed and enters airways.
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Product	Species	Test Results
Radiator Anti Rust and Water Pump Lubricant		
Acute		
Dermal		
LD50	Rabbit	79365 mg/kg estimated
Oral		
LD50	Rat	20678 mg/kg estimated
* Estimates for product may be based on additional component data not shown.		
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.	
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.	
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	This product is not expected to cause skin sensitization.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.	
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	May be fatal if swallowed and enters airways. If aspirated into lungs during swallowing or vomiting, may cause chemical pneumonia, pulmonary injury or death.	

12. Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal of waste from residues / unused products	This product is not a RCRA hazardous waste (See 40 CFR Part 261.20 – 261.33). Empty containers may be recycled. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose in accordance with all applicable regulations.
Hazardous waste code	Not regulated.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.

15. Regulatory information

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
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Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

**Safe Drinking Water Act
(SDWA)** Not regulated.

Food and Drug Administration (FDA) Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 311/312 Hazard categories Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance No

US state regulations

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

Volatile organic compounds (VOC) regulations

EPA

VOC content (40 CFR 51.100(s)) 17.9 %
Consumer products (40 CFR 59, Subpt. C) Not regulated

State

Consumer products Not regulated
VOC content (CA) 0 %
VOC content (OTC) 0 %

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 05-26-2015

Prepared by Allison Cho

Version # 01

Further information CRC # 612A

HMIS® ratings
Health: 1
Flammability: 1
Physical hazard: 0
Personal protection: B

NFPA ratings

Health: 1
Flammability: 1
Instability: 0

NFPA ratings**Disclaimer**

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC Industries' knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or CRC Industries.



SDS233
PRESTONE® SUPER FLUSH, 10-MINUTE
RADIATOR FLUSH
Date Prepared: 10/21/2016

SAFETY DATA SHEET

1. Product And Company Identification

SDS ID: SDS233
PRODUCT NAME: Prestone ® Super Flush, 10-Minute Radiator Flush
PRODUCT NUMBER: AS107, 70276, AS106BL, AS-107P
FORMULA NUMBER: 13616-6A, 13616-6B, 2177-68/69, 2307-21A

MANUFACTURER:	CANADIAN OFFICE:	MEXICO OFFICE:
Prestone Products Corporation 69 Eagle Rd. Danbury, CT 06810	AutoSupply Acquisition Canada Inc. 33 MacIntosh Blvd. Concord, ON L4K 4L5	ASG Operations Mexico S. de R.L. de C.V. Carretera Mexico Cuautitlan, Kilometro 31.5, Nave Industrial 5, Loma Bonita, Cuautitlan, Mexico, 54800

MEDICAL EMERGENCIES AND ALL OTHER INFORMATION PHONE NUMBER:

(888)269-0750 (in the US and Canada)

01-800-715-4135 (in Mexico)

TRANSPORTATION EMERGENCY PHONE NUMBER (Chemical Spills and Transport Accidents only):

CHEMTREC 1-800-424-9300 (in the US and Canada) +1 703 741-5970 (outside the US and Canada)

PRODUCT USE: Automobile cooling system flush – consumer product

RESTRICTIONS ON USE: None identified

2. Hazards Identification

GHS Classification:

Health	Physical
Not Hazardous	Not Hazardous

Label Elements: Not required

3. Composition/Information On Ingredients

Component	CAS No.	Amount
Water	7732-18-5	85-95%
Sodium Citrate	68-04-2	5-15%

The exact concentrations are a trade secret.

4. First Aid Measures

INHALATION: Remove victim to fresh air. . If irritation is experienced, move to fresh air.

SKIN CONTACT: Remove contaminated clothing. Wash skin thoroughly with soap and water. Obtain medical attention if irritation occurs or persists.

EYE CONTACT: Immediately rinse thoroughly with water, holding eyelids open. Obtain medical attention if irritation occurs or persists.

INGESTION: If large quantities are ingested, consult your physician.



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MOST IMPORTANT SYMPTOMS: May cause slight eye and skin irritation. Ingestion may cause gastrointestinal irritation.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT, IF NEEDED: Immediate medical attention should not be required.

NOTES TO PHYSICIAN: Treatment of overexposure should be directed at the control of symptoms and the clinical conditions.

5. Firefighting Measures

SUITABLE EXTINGUISHING MEDIA: This product is not combustible. Use any media that is appropriate for the surrounding fire.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: Thermal decomposition may produce oxides of sodium and carbon.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

6: Accidental Release Measures

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Wear appropriate protective clothing and equipment (See Section 8).

METHODS AND MATERIALS FOR CONTAINMENT/CLEANUP: Collect with absorbent material and place in appropriate, labeled container for disposal or, if permitted flush spill area with water.

7. Handling and Storage

PRECAUTIONS FOR SAFE HANDLING:

Avoid eye, and prolonged or repeated skin contact. Do not reuse empty containers unless properly cleaned.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES: Store in a cool, dry area.

NFPA Classification: N/A

8. Exposure Controls / Personal Protection

EXPOSURE GUIDELINES

CHEMICAL	EXPOSURE LIMIT
Water	None Established
Sodium Citrate	None Established

APPROPRIATE ENGINEERING CONTROLS: Use general ventilation or local exhaust as required to minimize exposures.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION: None needed under normal conditions of use.

GLOVES: None normally needed. For prolonged contact, rubber or neoprene gloves can be worn.

EYE PROTECTION: Safety glasses with side shields recommended if splashing is possible.



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OTHER PROTECTIVE EQUIPMENT/CLOTHING: Appropriate protective clothing as needed to minimize skin contact.

9. Physical and Chemical Properties

APPEARANCE:	Clear liquid	ODOR:	Sweet
ODOR THRESHOLD:	Not determined	pH:	8.3-9.9
MELTING/FREEZING POINT:	27-30°F (-2.8—1.2	BOILING POINT/RANGE:	215°F (101.7°C)
FLASH POINT:	None to boiling	EVAPORATION RATE:	Not determined
FLAMMABILITY (SOLID, GAS)	Not applicable	FLAMMABILITY LIMITS:	LEL: Not applicable UEL: Not applicable
VAPOR PRESSURE:	Not determined	VAPOR DENSITY:	Not determined
RELATIVE DENSITY:	1.05-1.06	SOLUBILITIES	Water: 100%
PARTITION COEFFICIENT (n-octanol/water)	Not determined	AUTOIGNITION TEMPERATURE:	Not applicable
DECOMPOSITION TEMPERATURE:	Not determined	VISCOSITY (Cst @ 68°F):	Not determined

10. Stability and Reactivity

REACTIVITY: Normally unreactive.

CHEMICAL STABILITY: Stable.

POSSIBILITY OF HAZARDOUS REACTIONS: None known.

CONDITIONS TO AVOID: None known.

INCOMPATIBLE MATERIALS: Strong acids, metals, flammable liquids.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition will produce oxides of carbon and sodium.

11. Toxicological Information

POTENTIAL HEALTH EFFECTS:

ACUTE HAZARDS:

INHALATION: Inhalation is not expected to be hazardous. Inhalation of large amounts may cause mucous membrane irritation.

SKIN CONTACT: Skin contact is not expected to be hazardous. Prolonged or excessive contact may cause skin irritation and possible skin rash.

EYE CONTACT: May cause mild irritation with redness and excess tearing.

INGESTION: Ingestion of small amounts is not expected to be acutely hazardous. Ingestion of large amounts may cause gastrointestinal irritation.

CHRONIC HAZARDS: None currently known.

CARCINOGENICITY LISTING: None of the ingredients are listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH, or OSHA.

ACUTE TOXICITY VALUES:

Sodium Citrate: Oral rat LD50: 5400 mg/kg (read-across)



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12. Ecological Information

ECOTOXICITY: No ecotoxicity data is available at this time.

PERSISTENCE AND DEGRADABILITY: No data is available at this time.

BIOACCUMULATIVE POTENTIAL: No data is available at this time.

MOBILITY IN SOIL: No data is available at this time.

OTHER ADVERSE EFFECTS: None known

13. Disposal Considerations

Dispose of product in accordance with all local, state/provincial and federal regulations.

14. Transport Information

U.S. DOT HAZARD CLASSIFICATION: Not Regulated

DOT MARINE POLLUTANTS: This product does not contain Marine Pollutants as defined in 49 CFR 171.8.

IMDG CODE SHIPPING CLASSIFICATION: Not Regulated

CANADIAN TDG CLASSIFICATION: Not Regulated

15. Regulatory Information

EPA SARA 311/312 HAZARD CLASSIFICATION: This product is not considered hazardous under SARA Title III, Section 311.

EPA SARA 313: This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

PROTECTION OF STRATOSPHERIC OZONE: This product is not known to contain or to have been manufactured with ozone depleting substances as defined in 40 CFR Part 82, Appendix A to Subpart A.

CERCLA SECTION 103: This product is not subject to CERCLA reporting requirements, however, many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

CALIFORNIA PROPOSITION 65: This product does not contain chemicals regulated under California Proposition 65.

EPA TSCA INVENTORY: All of the components of this material are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

CANADIAN ENVIRONMENTAL PROTECTION ACT: All of the ingredients are listed on the Canadian Domestic Substances List.

EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES (EINECS): All of the ingredients are listed on the EINECS inventory.

AUSTRALIA: All of the ingredients of this product are listed on the Australian Inventory of Chemical Substances.



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JAPAN: All of the ingredients of this product are listed on the Japanese Existing and New Chemical Substances (METI) List.

KOREA: All of the ingredients of this product are listed on the Korean Existing Chemical List (KECL).

PHILIPPINES: All of the ingredients of this product are listed on the Philippine Inventory of Chemical and Chemical Substance (PICCS)

16. Other Information

NFPA RATING (NFPA 704) - FIRE: 0 HEALTH: 1 INSTABILITY: 0

REVISION SUMMARY: Section 1: Manufacturer Name, Address and Phone Number,

SDS Date of Preparation/Revision: October 21, 2016

This SDS is directed to professional users and bulk handlers of the product. Consumer products are labeled in accordance with Federal Hazardous Substances Act regulations.

While Prestone Products Corporation believes that the data contained herein are factual and the opinions expressed are those of qualified experts regarding the results of the tests conducted, the data are not to be taken as a warranty or representation for which Prestone Products Corporation assumes legal responsibility. They are offered solely for your consideration, investigation and verification. Any use of these data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.



SAFETY DATA SHEET

1. Identification

Product identifier	Sea Foam Spray	
Other means of identification		
Product code	SS14	
Recommended use	Engine treatment/cleaner.	
Recommended restrictions	Internal engine use only. Do not spray in atmosphere.	
Manufacturer/Importer/Supplier/Distributor information		
Company name	Sea Foam Sales Company	
Address	510 North Chestnut Street Chaska, MN 55318 USA	
Telephone	(952) 938-4811	
Fax	(952) 938-5841	
Emergency telephone	INFOTRAC: (800) 535-5053 (Within Continental US); (352) 323-3500 (Outside US) (Only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals)	

2. Hazard(s) identification

Physical hazards	Flammable aerosols	Category 1
	Gases under pressure	Compressed gas
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Aspiration hazard	Category 1
OSHA defined hazards	Not classified.	
Label elements		
Signal word	Danger	
Hazard statement	Extremely flammable aerosol. Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness.	
Precautionary statement		
Prevention	Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Avoid breathing mist/vapors/spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/eye protection/face protection.	
Response	If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If on skin: Wash with plenty of water. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.	
Storage	Keep container tightly closed. Store locked up. Protect from sunlight. Store in a well-ventilated place. Do not expose to temperatures exceeding 50°C/122°F.	
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.	
Hazard(s) not otherwise classified (HNOC)	None known.	

Supplemental information

None.

3. Composition/information on ingredients**Mixtures**

Chemical name	CAS number	%
Hydrocarbon blend	-	65 - 85
Isopropanol	67-63-0	10 - 20
Carbon dioxide	124-38-9	2 - 5

Composition comments

All concentrations are in percent by weight unless otherwise indicated. Chemical ingredient identity and/or concentration information withheld for some or all components present is confidential business information (trade secret), and is being withheld as permitted by 29 CFR 1910.1200(i).

4. First-aid measures**Inhalation**

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

Skin contact

Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and delayed

Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures**Suitable extinguishing media**

Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed. Combustion products may include: carbon oxides.

Special protective equipment and precautions for firefighters

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Fire fighting equipment/instructions

In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. Fight fire from protected location or safe distance.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk.

General fire hazards

Extremely flammable aerosol. Contents under pressure. Pressurized container may explode when exposed to heat or flame.

6. Accidental release measures**Personal precautions, protective equipment and emergency procedures**

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapors/spray. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Stop leak if you can do so without risk. Move the aerosol cans to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Prevent entry into waterways, sewer, basements or confined areas.

Pick up undamaged aerosol cans mechanically. Dike leaked material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Scoop up used absorbent into drums or other appropriate container. Following product recovery, flush area with water. Collect runoff for recycling or disposal as potential hazardous waste.

Environmental precautions

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. U.S. regulations require reporting releases of this material to the environment which exceed the reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

7. Handling and storage

Precautions for safe handling

Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. When using do not smoke. Protect containers from damage. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition.

Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Avoid breathing mist/vapors/spray. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Keep away from heat, sparks and open flame. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in tightly closed container. Store in a well-ventilated place. Stored containers should be periodically checked for general condition and leakage. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Carbon dioxide (CAS 124-38-9)	PEL	5000 ppm	
Hydrocarbon blend	PEL	5 mg/m3	Mist.
		2000 mg/m3	
		500 ppm	
Isopropanol (CAS 67-63-0)	PEL	980 mg/m3	
		400 ppm	

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Carbon dioxide (CAS 124-38-9)	STEL	30000 ppm	
	TWA	5000 ppm	
Hydrocarbon blend	TWA	5 mg/m3	Inhalable fraction.
Isopropanol (CAS 67-63-0)	STEL	400 ppm	
	TWA	200 ppm	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Carbon dioxide (CAS 124-38-9)	STEL	54000 mg/m3	
		30000 ppm	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
	TWA	9000 mg/m ³	
		5000 ppm	
Hydrocarbon blend	Ceiling	1800 mg/m ³	
	STEL	10 mg/m ³	Mist.
Isopropanol (CAS 67-63-0)	STEL	1225 mg/m ³	
		500 ppm	
	TWA	980 mg/m ³	
		400 ppm	

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Isopropanol (CAS 67-63-0)	40 mg/l	Acetone	Urine	*

* - For sampling details, please see the source document.

Appropriate engineering controls Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Face shield is recommended.

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Skin protection

Other Wear appropriate chemical resistant clothing.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Wear NIOSH approved respirator appropriate for airborne exposure at the point of use. Appropriate respirator selection should be made by a qualified professional.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form Aerosol spray can - Pressurized Liquid.

Color Colorless.

Odor

Petroleum hydrocarbon.

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

180 °F (82.2 °C)

Flash point

55.0 °F (12.8 °C) Tag Closed Cup

Evaporation rate

< 1

Flammability (solid, gas)

Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%)	Not available.
Vapor pressure	80 - 90 psig
Vapor density	> 1 (Air=1)
Relative density	0.8
Solubility(ies)	
Solubility (water)	Slightly soluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Heat of combustion	34 kJ/g
Oxidizing properties	Not oxidizing.
VOC	367 g/l

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Acids. Caustics.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause drowsiness and dizziness. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
Symptoms related to the physical, chemical and toxicological characteristics	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity	May be fatal if swallowed and enters airways.
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Components	Species	Test Results
Isopropanol (CAS 67-63-0)		
Acute		
Dermal		
LD50	Rabbit	12870 mg/kg
Inhalation		
Vapor		
LC50	Rat	72.6 mg/l, 4 hours
Oral		
LD50	Rat	4710 mg/kg
Skin corrosion/irritation	Causes skin irritation.	

Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

Isopropanol (CAS 67-63-0) 3 Not classifiable as to carcinogenicity to humans.

NTP Report on Carcinogens

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure May cause drowsiness and dizziness.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard May be fatal if swallowed and enters airways.

Chronic effects Prolonged inhalation may be harmful.

Further information Intentional misuse by concentrating and inhaling the product can be harmful or fatal.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
Isopropanol (CAS 67-63-0)		
Aquatic		
Acute		
Crustacea	LC50	Daphnia magna > 10000 mg/l, 24 hours
Fish	LC50	Pimephales promelas 9640 mg/l, 96 hours
Chronic		
Crustacea	EC50	Daphnia magna > 100 mg/l, 21 days
NOEC		Daphnia magna 141 mg/l, 16 days
		30 mg/l, 21 days

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

Isopropanol (CAS 67-63-0) 0.05

Mobility in soil The product is slightly soluble in water.

Other adverse effects The product contains volatile organic compounds which have a photochemical ozone creation potential.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Incinerate the material under controlled conditions in an approved incinerator. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

14. Transport information

DOT

UN number	UN1950
UN proper shipping name	Aerosols
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not applicable.
Environmental hazards	
Marine pollutant	-
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	N82
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

IATA

UN number	UN1950
UN proper shipping name	Aerosols
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Packing group	Not applicable.
Environmental hazards	-
ERG Code	10L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN1950
UN proper shipping name	Aerosols
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Packing group	Not applicable.
Environmental hazards	
Marine pollutant	-
EmS	F-D, S-U
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Isopropanol (CAS 67-63-0)

Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

Classified hazard categories	Flammable (gases, aerosols, liquids, or solids) Gas under pressure Skin corrosion or irritation Serious eye damage or eye irritation Specific target organ toxicity (single or repeated exposure) Aspiration hazard
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SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Isopropanol	67-63-0	10 - 20

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Contains component(s) regulated under the Safe Drinking Water Act.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Isopropanol (CAS 67-63-0) Low priority

US state regulations

US. Massachusetts RTK - Substance List

Carbon dioxide (CAS 124-38-9)
Hydrocarbon blend (CAS -)
Isopropanol (CAS 67-63-0)

US. New Jersey Worker and Community Right-to-Know Act

Carbon dioxide (CAS 124-38-9)
Isopropanol (CAS 67-63-0)

US. Pennsylvania Worker and Community Right-to-Know Law

Carbon dioxide (CAS 124-38-9)
Isopropanol (CAS 67-63-0)

US. Rhode Island RTK

Carbon dioxide (CAS 124-38-9)
Hydrocarbon blend (CAS -)
Isopropanol (CAS 67-63-0)

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Hydrocarbon blend (CAS -)
Isopropanol (CAS 67-63-0)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 09-November-2018

Revision date -

Version # 01

HMIS® ratings
Health: 3
Flammability: 4
Physical hazard: 3

NFPA ratings



Disclaimer

Sea Foam Sales Company cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Safety Data Sheet

Classified in accordance 29 CFR 1910.1200

1. Product Identification

Product Information:	1000000075
Product Identifier:	SPRAYWAY GLASS CLEANER
Recommended Use:	Cleaner
Manufacturer/Importer/Distributor Information:	PLZ CORP 2651 WARRENVILLE RD, STE 300 DOWNERS GROVE, IL 60515 US 800-332-9000
Emergency Telephone:	866-836-8855

2. Hazard(s) identification

Classification

Compressed Gas

Label elements

HAZARD PICTOGRAMS



SIGNAL WORD

Warning

GHS HAZARD STATEMENTS

H280 Contains gas under pressure; may explode if heated.

GHS PRECAUTIONARY STATEMENTS

Prevention

None

Response

None

Storage

P410+P403 Protect from sunlight. Store in a well-ventilated place.

Disposal

None

Other Information

None

3. Composition/Information on Ingredients

Mixtures

<u>Chemical Identity</u>	<u>CAS Number</u>	<u>Content in Percent (%)</u> *
Ethanol	64-17-5	2.5-10
2-Butoxyethanol	111-76-2	2.5-10
Propane	74-98-6	1.0-2.5
Butane	106-97-8	1.0-2.5

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition Comments: Other components are not hazardous or are below required disclosure limits.

The exact concentration has been withheld as a trade secret.

4. First-aid Measures

SKIN CONTACT: Wash skin thoroughly with soap and water. If skin irritation occurs: Get medical advice/attention.

EYE CONTACT: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.

INHALATION: Move to fresh air.

INGESTION: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

IMPORTANT SYMPTOMS: No data available

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED: Get medical attention if symptoms occur.

5. Fire-fighting Measures

EXTINGUISHING MEDIA: Use fire-extinguishing media appropriate for surrounding materials.

UNSUITABLE EXTINGUISHING MEDIA: Do not use water jet as an extinguisher, as this will spread the fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Pressurized container may explode when exposed to heat or flame.

SPECIAL FIREFIGHTING PROCEDURES: No data available

6. Accidental Release Measures

PERSONAL PRECAUTIONS : No data available

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANUP: Stop the flow of material, if this is without risk. Absorb with sand or other inert absorbent.

ENVIRONMENTAL PRECAUTIONS: Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer. Environmental manager must be informed of all major spillages.

7. Handling and Storage

HANDLING: Wear personal protective equipment.

SAFE HANDLING ADVICE: Observe good industrial hygiene practices.

STORAGE: No data available

NFPA 30B: Aerosol Level 1

8. Exposure Controls/Personal Protection

Ingredients with Occupational Exposure Limits

<u>Chemical Name</u>	<u>TLV-TWA</u>	<u>TLV-STEL</u>	<u>PEL-TWA</u>	<u>PEL-CEILING</u>
Ethanol	N.E.	1000 ppm	1000 ppm	N.E.

2-Butoxyethanol	20 ppm	N.E.	50 ppm	N.E.
Propane	N.E.	N.E.	1000 ppm	N.E.
Butane	N.E.	1000 ppm	N.E.	N.E.

Further Advice: MEL = Maximum Exposure Limit OES = Occupational Exposure Standard SUP = Supplier's Recommendation
Sk = Skin Sensitizer N.E. = Not Established

ENGINEERING CONTROLS: Provide adequate ventilation.

Personal Protection

EYE/FACE PROTECTION: Wear goggles/face shield.

SKIN PROTECTION: No data available

RESPIRATORY PROTECTION: Seek advice from local supervisor. In case of inadequate ventilation use suitable respirator.

HYGIENIC PRACTICES: General industrial hygiene practice.

9. Physical and Chemical Properties

Appearance:

Physical State:	Liquid
Form:	Spray Aerosol
Color:	Yellow
Odor:	Fresh
Odor Threshold:	No data available
pH:	No data available
Freeze Point, °C:	No data available
Boiling Point, °C:	78
Flash Point, °C:	-104
Flammability (solid, gas):	Non-flammable Aerosol
Evaporation Rate:	No data available
Combustibility:	Does not Support Combustion
Explosive Limits, %:	1.1 - 19.0
Vapor Pressure @20°C, PSI:	70 - 90
Vapor Density:	No data available
Relative Density:	0.979
Solubility in Water:	No data available
Partition Coefficient, n-octanol/water:	No data available
Auto-Ignition Temperature, °C:	No data available
Decomposition temperature, °C:	No data available
Kinematic Viscosity:	No data available

10. Stability and Reactivity

REACTIVITY: Not reactive under normal conditions of use.

STABILITY: Material is stable under normal conditions.

POSSIBILITY OF HAZARDOUS REACTIONS: No data available

CONDITIONS TO AVOID: Avoid heat or contamination

INCOMPATIBILITY: No data available

HAZARDOUS DECOMPOSITION PRODUCTS: No data available

11. Toxicological Information

Information on Likely Routes of Exposure

SKIN CONTACT EFFECTS: May cause irritation on prolonged or repeated contact.

EYE CONTACT EFFECTS: May cause slight irritation with tearing.

INHALATION EFFECTS: Inhalation of high concentrations of mists may cause irritation of the nose throat and upper respiratory tract.

INGESTION EFFECTS: Ingestion may cause irritation of the mucous membranes, esophagus and stomach.

Carcinogenicity: contains 1 component (Ethanol) present at a level greater or equal to 0.1% that have been identified as possible carcinogenic to humans by IARC (Group 2B).

The following values are calculated based on chapter 3.1 of the GHS document. The product itself has not been tested.

ATE ORAL 15,491 mg/kg

ATE DERMAL 30,157 mg/kg

ATE INHALATION 382 mg/kg

Acute Toxicity Values

The acute effects of this product have not been tested. Data on individual components are tabulated below

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
64-17-5	Ethanol	10,470 mg/kg	17,100 mg/kg	124.7 mg/l
111-76-2	2-Butoxyethanol	500 mg/kg	1100 mg/kg	11 mg/l
74-98-6	Propane	5,000 mg/kg	5,000 mg/kg	100 mg/l
106-97-8	Butane	5000 mg/kg	5000 mg/kg	658 mg/L Rat

N.I. = No Information

Skin Corrosion & Irritation:

Product: No data available

Serious Eye Damage & Irritation:

Product: No data available

Respiratory or Skin Sensitization:

Product: No data available

STOT-Single Exposure:

Product: No data available

STOT-Repeated Exposure:

Product: No data available

Aspiration Hazard:

Product: No data available

Carcinogenicity:

Product: No data available

Reproductive Toxicity:

Product: No data available

Germ Cell Mutagenicity:

Product: No data available

12. Ecological Information

ECOLOGICAL INFORMATION: No data available

PERSISTENCE: No data available

BIOACCUMULATE: No data available

MOBILITY IN SOIL: No data available

OTHER ECOLOGICAL: No data available

13. Disposal Information

DISPOSAL INFORMATION: Consult with your local, regional and federal agencies for information on proper disposal.

CONTAMINATED PACKAGING : Consult with your local, regional and federal agencies for information on proper disposal.

14. Transport Information

SPECIAL TRANSPORT PRECAUTIONS: No data available

DOT

UN Number:	UN1950
Proper Shipping Name:	AEROSOLS, NON-FLAMMABLE
Technical Name:	N/A
Hazard Class(es)	
Class:	2.2
Subsidiary Risk:	N/A
Packing Group:	N/A

IATA

UN Number:	UN1950
Proper Shipping Name:	AEROSOLS, NON-FLAMMABLE
Technical Name:	N/A
Hazard Class(es)	
Class:	2.2
Subsidiary Risk:	N/A
Packing Group:	N/A

IMDG

UN Number:	UN1950
Proper Shipping Name:	AEROSOLS, NON-FLAMMABLE
Technical Name:	N/A
Hazard Class(es)	
Class:	2.2
Subsidiary Risk:	N/A
Packing Group:	N/A

The classification shown in this section may be eligible for use of an exception, such as 'Limited Quantity', per the dangerous goods regulations. The shipper of this product should consult the applicable mode's regulation for the UN number displayed above to determine if any exceptions are available and may be utilized, at the shipper's discretion.

15. Regulatory Information

CHEMICAL INVENTORY STATUS:

TSCA	On or in compliance with the inventory
DSL	All ingredients in this product are listed on the DSL or are exempt.

CALIFORNIA PROPOSITION 65 CARCINOGENS AND REPRODUCTIVE TOXINS:

No Proposition 65 chemicals present or warning required.

16. Other Information

Revision Date: 5/26/2023

Datasheet produced by: Regulatory Department

Legend

N/A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined, N.I. - No Information

TLV - Threshold Limit Values (TLVs®), as established by the American Conference of Governmental Industrial Hygienists (ACGIH®)

PEL - Permissible Exposure Limit, as established by the U.S. Occupational Safety and Health Administration (OSHA), as amended

TSCA - U.S. Toxic Substance Control Act

DSL - Canada Environmental Protection Act: Domestic Substance List

This information is being provided in accordance with the Occupational Safety and Health Administration (OSHA) regulation (29 CFR 1910.1200). The information supplied is designed for workplaces where the product use and frequency of exposure exceeds that established for the labeled consumer use.

Further Information

This document has been prepared using data from sources considered to be technically reliable. It does not constitute a warranty, expressed or implied, as to the accuracy of the information contained herein. Actual conditions of use are beyond the manufacturer's and seller's control. Purchaser and user are responsible for determining the suitability of the product for a particular purpose, adopting precautions for the protection of property and persons, and compliance with all Federal, State, Provincial, and Local laws.



SAFETY DATA SHEET

1. Identification

Product identifier Jump Start® Starting Fluid - 11 oz

Other means of identification

Product Code No. 05671 (Item# 1003843)

Recommended use Starting fluid

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufactured or sold by:

Company name CRC Industries, Inc.

Address 885 Louis Dr.

Warminster, PA 18974 US

Telephone

General Information 215-674-4300

Technical Assistance 800-521-3168

Customer Service 800-272-4620

**24-Hour Emergency
(CHEMTREC)** 800-424-9300 (US)

Website www.crcindustries.com

2. Hazard(s) identification

Physical hazards Flammable aerosols Category 1

Gases under pressure Compressed gas

Health hazards Skin corrosion/irritation Category 2

Carcinogenicity Category 2

Specific target organ toxicity, single exposure Category 3 narcotic effects

Aspiration hazard Category 1

Environmental hazards Hazardous to the aquatic environment, acute hazard Category 2

Hazardous to the aquatic environment, long-term hazard Category 3

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Extremely flammable aerosol. Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways. Causes skin irritation. May cause drowsiness or dizziness. Suspected of causing cancer.

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not apply while equipment is energized. Extinguish all flames, pilot lights, and heaters. Vapors will accumulate readily and may ignite. Use only outdoors or in a well-ventilated area. Maintain ventilation during use and until all vapors are gone. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Avoid breathing mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

Response

If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. If exposed or concerned: Get medical advice/attention.

Storage

Store in a well-ventilated place. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Exposure to high temperature may cause can to burst.

Disposal

Dispose of contents/container in accordance with local/regional/national regulations.

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information

None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
heptane, branched, cyclic and linear		426260-76-6	70 - 80
diethyl ether		60-29-7	10 - 20
carbon dioxide		124-38-9	5 - 10
ethanol		64-17-5	< 1.5
chloroethane		75-00-3	≤ 1
distillates (petroleum), hydrotreated light		64742-47-8	≤ 1

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact

Remove contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact

Rinse with water. Get medical attention if irritation develops and persists.

Ingestion

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and delayed

Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Skin irritation. May cause redness and pain.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information

IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media

Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media

None known.

Specific hazards arising from the chemical

Contents under pressure. Pressurized container may rupture when exposed to heat or flame. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire-fighting equipment/instructions	In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up.
General fire hazards	Extremely flammable aerosol. Contents under pressure. Pressurized container may rupture when exposed to heat or flame.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Prevent product from entering drains. Stop the flow of material, if this is without risk. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Put material in suitable, covered, labeled containers.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices. For product usage instructions, see the product label.
Conditions for safe storage, including any incompatibilities	Level 3 Aerosol. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store in a well-ventilated place.

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
carbon dioxide (CAS 124-38-9)	PEL	9000 mg/m ³ 5000 ppm
chloroethane (CAS 75-00-3)	PEL	2600 mg/m ³ 1000 ppm
diethyl ether (CAS 60-29-7)	PEL	1200 mg/m ³ 400 ppm
ethanol (CAS 64-17-5)	PEL	1900 mg/m ³ 1000 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
carbon dioxide (CAS 124-38-9)	STEL	30000 ppm
	TWA	5000 ppm
chloroethane (CAS 75-00-3)	TWA	100 ppm
	STEL	500 ppm
diethyl ether (CAS 60-29-7)	TWA	400 ppm
	STEL	1000 ppm
ethanol (CAS 64-17-5)		

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
carbon dioxide (CAS 124-38-9)	STEL	54000 mg/m ³
	TWA	30000 ppm 9000 mg/m ³ 5000 ppm
distillates (petroleum), hydrotreated light (CAS 64742-47-8)	TWA	100 mg/m ³
	TWA	1900 mg/m ³ 1000 ppm
ethanol (CAS 64-17-5)		

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines**US - California OELs: Skin designation**

chloroethane (CAS 75-00-3) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

chloroethane (CAS 75-00-3) Danger of cutaneous absorption

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash fountain and emergency showers are recommended.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear protective gloves such as: Nitrile. Butyl rubber.

Other Wear appropriate chemical resistant clothing.

Respiratory protection If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form Aerosol.

Color Colorless.

Odor Hydrocarbon-like.

Odor threshold Not available.

pH	Not available.
Melting point/freezing point	-189.9 °F (-123.3 °C) estimated
Initial boiling point and boiling range	94.3 °F (34.6 °C) estimated
Flash point	-58.0 °F (-50.0 °C) estimated
Evaporation rate	Fast.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	0.5 % estimated
Explosive limit - upper (%)	36.5 % estimated
Vapor pressure	5901.2 hPa estimated
Vapor density	> 1 (air = 1)
Relative density	0.7
Solubility(ies)	
Solubility (water)	Slightly soluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	356 °F (180 °C) estimated
Decomposition temperature	Not available.
Viscosity	< 20 cSt (104 °F (40 °C))
Percent volatile	Not available.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat, flames and sparks. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Aluminum.
Hazardous decomposition products	Carbon oxides. Acrid smoke.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
Symptoms related to the physical, chemical and toxicological characteristics	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity	May be fatal if swallowed and enters airways.
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Components	Species	Test Results
diethyl ether (CAS 60-29-7)		
Acute		
Oral		
LD50	Rat	3230 - 3920 mg/kg

Components	Species	Test Results
ethanol (CAS 64-17-5)		
Acute		
Dermal		
LD50	Rabbit	20 g/kg
Inhalation		
LC50	Rat	8000 mg/l, 4 hours
* Estimates for product may be based on additional component data not shown.		
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	This product is not expected to cause skin sensitization.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	Suspected of causing cancer.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
chloroethane (CAS 75-00-3)	3 Not classifiable as to carcinogenicity to humans.	
diethyl ether (CAS 60-29-7)	3 Not classifiable as to carcinogenicity to humans.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)		
Not listed.		
US. National Toxicology Program (NTP) Report on Carcinogens		
Not listed.		
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.	
Specific target organ toxicity - single exposure	May cause drowsiness and dizziness.	
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	May be fatal if swallowed and enters airways. If aspirated into lungs during swallowing or vomiting, may cause chemical pneumonia, pulmonary injury or death.	
Chronic effects	Prolonged inhalation may be harmful.	

12. Ecological information

Ecotoxicity	Toxic to aquatic life. Harmful to aquatic life with long lasting effects.
Persistence and degradability	
Bioaccumulative potential	
Partition coefficient n-octanol / water (log Kow)	
chloroethane	1.43
diethyl ether	0.89
ethanol	-0.31
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	The dispensed liquid product is a RCRA hazardous waste for the characteristic of ignitability with a waste code of D001 (See 40 CFR Part 261.20 – 261.33). Empty container can be recycled. Full or partially-full aerosol cans can be treated as universal waste. Contents under pressure. Incinerate the material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose in accordance with all applicable regulations.
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Hazardous waste code	Possible RCRA waste code includes: D001: Waste Flammable material with a flash point <140 F
Contaminated packaging	However, it is the generator's responsibility to determine the proper classification and disposal method at the time of disposal.
	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN1950
UN proper shipping name	Aerosols, flammable, Limited Quantity
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Packing group	Not assigned.
Environmental hazards	
Marine pollutant	No.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	N82
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

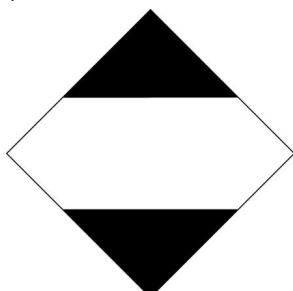
IATA

UN number	UN1950
UN proper shipping name	Aerosols, flammable, Limited Quantity
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Packing group	Not assigned.
ERG Code	10L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

UN number	UN1950
UN proper shipping name	AEROSOLS, Limited Quantity
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Packing group	Not assigned.
Environmental hazards	
Marine pollutant	No.
EmS	F-D, S-U
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

DOT; IMDG





15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

chloroethane (CAS 75-00-3)

diethyl ether (CAS 60-29-7)

CERCLA Hazardous Substances: Reportable quantity

chloroethane (CAS 75-00-3)	100 LBS
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diethyl ether (CAS 60-29-7)	100 LBS
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Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

chloroethane (CAS 75-00-3)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

chloroethane (CAS 75-00-3)

diethyl ether (CAS 60-29-7)

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

diethyl ether (CAS 60-29-7)	6584
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Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

diethyl ether (CAS 60-29-7)	35 %WV
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DEA Exempt Chemical Mixtures Code Number

diethyl ether (CAS 60-29-7)	6584
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FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

ethanol (CAS 64-17-5)	Low priority
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Food and Drug Administration (FDA) Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Classified hazard categories Flammable (gases, aerosols, liquids, or solids)

Gas under pressure

Skin corrosion or irritation

Carcinogenicity

Specific target organ toxicity (single or repeated exposure)

Aspiration hazard

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
chloroethane	75-00-3	≤ 1

US state regulations**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

chloroethane (CAS 75-00-3)
diethyl ether (CAS 60-29-7)
distillates (petroleum), hydrotreated light (CAS 64742-47-8)

US. New Jersey Worker and Community Right-to-Know Act

carbon dioxide (CAS 124-38-9)
chloroethane (CAS 75-00-3)
diethyl ether (CAS 60-29-7)
ethanol (CAS 64-17-5)

US. Massachusetts RTK - Substance List

carbon dioxide (CAS 124-38-9)
chloroethane (CAS 75-00-3)
diethyl ether (CAS 60-29-7)
ethanol (CAS 64-17-5)

US. Pennsylvania Worker and Community Right-to-Know Law

carbon dioxide (CAS 124-38-9)
chloroethane (CAS 75-00-3)
diethyl ether (CAS 60-29-7)
distillates (petroleum), hydrotreated light (CAS 64742-47-8)
ethanol (CAS 64-17-5)

US. Rhode Island RTK

carbon dioxide (CAS 124-38-9)
chloroethane (CAS 75-00-3)
diethyl ether (CAS 60-29-7)
distillates (petroleum), hydrotreated light (CAS 64742-47-8)
ethanol (CAS 64-17-5)

California Proposition 65

WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

California Proposition 65 - CRT: Listed date/Carcinogenic substance

chloroethane (CAS 75-00-3) Listed: July 1, 1990

California Proposition 65 - CRT: Listed date/Developmental toxin

toluene (CAS 108-88-3) Listed: January 1, 1991

Volatile organic compounds (VOC) regulations**EPA**

VOC content (40 CFR 51.100(s))	94.5 %
Consumer products (40 CFR 59, Subpt. C)	Not regulated

State

Consumer products	Not regulated
VOC content (CA)	94.5 %
VOC content (OTC)	94.5 %

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).
 A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	11-18-2022
Prepared by	Allison Yoon
Version #	01
Disclaimer	The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC's knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this (M)SDS consult your supervisor, a health & safety professional, or CRC Industries, Inc..
Revision information	This document has undergone significant changes and should be reviewed in its entirety.

**SAFETY DATA SHEET
SSS® FOAM DISINFECTANT CLEANER & DEODORIZER (#05006)**

Version 1.2

Revision Date 05/30/2015

Print Date 05/31/2015

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : SSS® Foam Disinfectant Cleaner & Deodorizer

EPA ID Number: 10807-21-12120

Material number : A00250

Manufacturer or supplier's details

Company : Triple S

Address : 2 Executive Park Drive
Billerica, MA 01862

Telephone : 978-667-7900

Emergency telephone numbers

For SDS Information : 978-667-7900

For a Medical Emergency : 1-888-779-1339

For a Transportation Emergency : 1-888-779-1339

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	Aerosol containing a liquefied gas
Colour	white
Odour	characteristic

GHS Classification

Gases under pressure : Liquefied gas
Eye irritation : Category 2A

GHS Label element

Hazard pictograms :  

Signal word : Warning

Hazard statements : H280 Contains gas under pressure; may explode if heated.
H319 Causes serious eye irritation.

Precautionary statements : **Prevention:**
P264 Wash skin thoroughly after handling.
P280 Wear eye protection/ face protection.
Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/ attention.

Storage:

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P410 + P403 Protect from sunlight. Store in a well-ventilated place.

Disposal:

P501 Dispose of contents/container in accordance with local regulation.

Potential Health Effects

Carcinogenicity:

IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	Confirmed animal carcinogen with unknown relevance to humans
OSHA	2-butoxyethanol 111-76-2 No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical Name	CAS-No.	Concentration [%]
butane	106-97-8	>= 1 - < 5
2-butoxyethanol	111-76-2	>= 1 - < 5
2-(2-ethoxyethoxy)ethanol	111-90-0	>= 1 - < 5
tetrassium ethylenediaminetetraacetate	64-02-8	>= 1 - < 5
propane	74-98-6	>= 1 - < 5

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : If unconscious place in recovery position and seek medical advice.
Consult a physician after significant exposure.
Move to fresh air.
- In case of skin contact : If skin irritation persists, call a physician.
Wash off immediately with plenty of water for at least 15 minutes.
If on clothes, remove clothes.
Wash contaminated clothing before re-use.
- In case of eye contact : Remove contact lenses.
Protect unharmed eye.

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Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.

- If swallowed : Keep respiratory tract clear.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Alcohol-resistant foam
Dry chemical
Carbon dioxide (CO₂)
Water spray
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Carbon dioxide (CO₂)
Carbon monoxide
Smoke
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
For safety reasons in case of fire, cans should be stored separately in closed containments.
Use water spray to cool unopened containers.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Ensure adequate ventilation.
Evacuate personnel to safe areas.
Remove all sources of ignition.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
- Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

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- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up or vacuum up spillage and collect in suitable container for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Do not breathe vapours/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations. Always replace cap after use. Avoid exposure - obtain special instructions before use. Do not breathe vapours or spray mist.
- Conditions for safe storage : BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects. Observe label precautions. Keep in a dry, cool and well-ventilated place. Electrical installations / working materials must comply with the technological safety standards.
- Materials to avoid : Strong oxidizing agents
- Storage temperature : 4.4 - 49 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
butane	106-97-8	TWA	800 ppm 1,900 mg/m ³	NIOSH REL
		TWA	800 ppm 1,900 mg/m ³	OSHA P0
2-butoxyethanol	111-76-2	TWA	20 ppm	ACGIH
		TWA	5 ppm 24 mg/m ³	NIOSH REL
		TWA	50 ppm 240 mg/m ³	OSHA Z-1
		TWA	25 ppm 120 mg/m ³	OSHA P0
2-(2-ethoxyethoxy)ethanol	111-90-0	TWA	25 ppm	US WEEL
propane	74-98-6	TWA	1,000 ppm	ACGIH
		TWA	1,000 ppm 1,800 mg/m ³	NIOSH REL

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		TWA	1,000 ppm 1,800 mg/m ³	OSHA Z-1
		TWA	1,000 ppm 1,800 mg/m ³	OSHA P0

Biological occupational exposure limits

Component	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
2-BUTOXYETHANOL	111-76-2	Butoxyacetic acid (BAA)	Urine	End of shift (As soon as possible after exposure ceases)	200 mg/g	ACGIH BEI

Remarks: Creatinine

Personal protective equipment

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection

: Safety glasses
Ensure that eyewash stations and safety showers are close to the workstation location.

Skin and body protection

: impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

: When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Aerosol containing a liquefied gas

Colour : white

Odour : characteristic

Odour Threshold : no data available

pH : no data available

Melting point/freezing point : no data available

Boiling point : no data available

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Flash point	:	not applicable
Evaporation rate	:	no data available
Flammability (solid, gas)	:	Not classified as a flammability hazard
Upper explosion limit	:	no data available
Lower explosion limit	:	no data available
Vapour pressure	:	no data available
Relative vapour density	:	no data available
Density	:	no data available
Solubility(ies)		
Water solubility	:	completely soluble
Solubility in other solvents	:	not determined
Partition coefficient: n-octanol/water	:	no data available
Auto-ignition temperature	:	not determined
Thermal decomposition	:	no data available
Viscosity		
Viscosity, kinematic	:	no data available
Heat of combustion	:	4.59 kJ/g

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Stable
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Vapours may form explosive mixture with air. No decomposition if stored and applied as directed.
Conditions to avoid	:	Heat, flames and sparks. Extremes of temperature and direct sunlight.
Incompatible materials	:	Strong oxidizing agents
Hazardous decomposition products	:	Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

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Acute oral toxicity	: Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method
Acute inhalation toxicity	: Acute toxicity estimate : > 10 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method
Acute dermal toxicity	: Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method

Components:

butane:

Acute inhalation toxicity	: LC50 mouse: 1,237 mg/l Exposure time: 2 h
LC50 rat: 1,355 mg/l	

propane:

Acute inhalation toxicity	: LC50 mouse: 1,237 mg/l Exposure time: 2 h
LC50 rat: 658 mg/l Exposure time: 4 h	
LC50 rat: 1,355 mg/l	

Skin corrosion/irritation

Product:

Remarks: May cause skin irritation and/or dermatitis.

Serious eye damage/eye irritation

Product:

Remarks: Eye irritation

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

butane:

2-butoxyethanol:

2-(2-ethoxyethoxy)ethanol:

tetrasodium ethylenediaminetetraacetate:

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propane:

STOT - single exposure

no data available

STOT - repeated exposure

no data available

Aspiration toxicity

no data available

Further information

Product:

Remarks: no data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

Product:

Partition coefficient: n-octanol/water : Remarks: no data available

Components:

butane :

Partition coefficient: n-octanol/water : Pow: 2.89

2-(2-ethoxyethoxy)ethanol :

Partition coefficient: n-octanol/water : Pow: 0.54

Mobility in soil

no data available

Other adverse effects

no data available

Product:

Regulation 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

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Version 1.2

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Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Harmful to aquatic life.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Dispose of in accordance with local regulations.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

Transportation Regulation: 49 CFR (USA):
ORM-D, CONSUMER COMMODITY

Transportation Regulation: IMDG (Vessel):
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

Transportation Regulation: IATA (Cargo Air):
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

Transportation Regulation: IATA (Passenger Air):
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

Transportation Regulation: TDG (Canada):
UN1950, AEROSOLS, NON-FLAMMABLE, 2.2, - Limited quantity

SECTION 15. REGULATORY INFORMATION

This product is regulated under the United States Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

Pesticide Labeling Information Required Under U.S. FIFRA Regulations

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

WARNING

Causes substantial but temporary eye injury.
Causes moderate eye irritation.
Harmful if swallowed.

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Harmful if absorbed through skin.
Harmful if inhaled.
Observe label precautions.

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
sodium hydroxide	1310-73-2	1000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Sudden Release of Pressure Hazard
Acute Health Hazard

SARA 302 : SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop 65 WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

2-ethoxyethanol 110-80-5

The components of this product are reported in the following inventories:

TSCA On TSCA Inventory
DSL This product contains one or several components that are not on the Canadian DSL nor NDSL.
AICS Not in compliance with the inventory
NZIoC Not in compliance with the inventory
PICCS Not in compliance with the inventory
IECSC Not in compliance with the inventory

Inventory Acronym and Validity Area Legend:

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

SAFETY DATA SHEET

SSS® FOAM DISINFECTANT CLEANER & DEODORIZER (#05006)

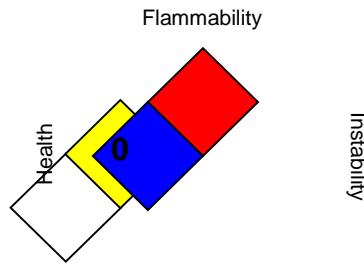
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Further information

NFPA:



Special hazard.

HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	2

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

OSHA GHS Label Information:

Hazard pictograms :



Signal word

: **Warning:**

Hazard statements

: Contains gas under pressure; may explode if heated. Causes serious eye irritation.

Precautionary statements

: **Prevention:** Wash skin thoroughly after handling. Wear eye protection/ face protection.

Response: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/ attention.

Storage: Protect from sunlight. Store in a well-ventilated place.

Disposal: Dispose of contents/container in accordance with local regulation.

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We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. Users should make their own investigations to determine the suitability and applicability of the information for their particular purposes. This SDS has been prepared by the Compliance Services organization supporting this manufacturer, supplier or distributor.

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: December 20, 2019

1 Identification

- **Product identifier**
- **Trade name:** Fix-A-Flat Tire Sealant/Inflator
- **Product code:** S60266, S60269, S60369, S60410, S60420, S60430
- **Recommended use and restriction on use**
- **Recommended use:** Sealant
- **Restrictions on use:** No relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
(United States)
ITW Global Tire Repair, Inc.
125 Venture Drive, Suite 210, San Luis Obispo, CA 93401
Tel (805) 489-0490
- **(Canada)**
ITW Permatex Canada
35 Brownridge Rd., Unit 1, Halton Hills ON L7G 0C6
(905) 693-8900 (Tel), (905) 864-8602 (Fax)
- **Emergency telephone number:**
ChemTel Inc.
(800)255-3924 (North America)
+1 (813)248-0585 (International)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Press. Gas H280 Contains gas under pressure; may explode if heated.
- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**



GHS04

- **Signal word:** Warning
- **Hazard statements:**
H280 Contains gas under pressure; may explode if heated.
- **Precautionary statements:**
P410+P403 Protect from sunlight. Store in a well-ventilated place.
- **Other hazards** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Components:**

(Cont'd. on page 2)

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(Cont'd. of page 1)

29118-24-9	(1E)-1,3,3,3-Tetrafluoro-1-propene	Simple Asphyxiant	20-40%
56-81-5	Glycerol		<5%
9004-34-6	cellulose		<1%

- **Additional information:**

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.
For the wording of the listed Hazard Statements, refer to section 16.

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Immediately remove any clothing soiled by the product.
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Unlikely route of exposure.
Do not induce vomiting; immediately call for medical help.
- **Most important symptoms and effects, both acute and delayed:**
Gastric or intestinal disorders when ingested.
- **Indication of any immediate medical attention and special treatment needed:**
No relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO2, extinguishing powder or water spray. Fight larger fires with water spray.
- **For safety reasons unsuitable extinguishing agents:** None.
- **Special hazards arising from the substance or mixture**
Danger of receptacles bursting because of high vapor pressure if heated.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information:** Cool endangered receptacles with water in flooding quantities.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Use personal protective equipment as required.
Ensure adequate ventilation.
For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.

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(Cont'd. of page 2)

- **Environmental precautions** No special measures required.
- **Methods and material for containment and cleaning up**
Allow to solidify. Pick up mechanically.
Send for recovery or disposal in suitable receptacles.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling:**
Keep out of reach of children.
Use only in well ventilated areas.
Handle with care.
Avoid contact with the eyes and skin.
- **Information about protection against explosions and fires:**
Danger of receptacles bursting because of high vapor pressure if heated.
- **Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:**
Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**
Store in a cool place. Heat will increase pressure and may lead to the container bursting.
- **Specific end use(s)** No relevant information available.

8 Exposure controls/personal protection

· Control parameters

· Components with limit values that require monitoring at the workplace:

56-81-5 Glycerol

PEL (USA)	Long-term value: 15* 5** mg/m ³ mist; *total dust **respirable fraction
TLV (USA)	TLV withdrawn-insufficient data human occup. exp.
EL (Canada)	Long-term value: 10* 3** mg/m ³ *mist; **mist, respirable
EV (Canada)	Long-term value: 10 mg/m ³
LMPE (Mexico)	Long-term value: 10 mg/m ³

9004-34-6 cellulose

PEL (USA)	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV (USA)	Long-term value: 10 mg/m ³

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Trade name: Fix-A-Flat Tire Sealant/Inflator

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EL (Canada)	Long-term value: 10* 3** mg/m ³ *total dust, **respirable fraction
EV (Canada)	Long-term value: 10 mg/m ³ paper fibre, total dust
LMPE (Mexico)	Long-term value: 10 mg/m ³

Exposure controls

General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Avoid breathing vapors.

Engineering controls: No relevant information available.

Breathing equipment:

Not required under normal conditions of use.

Wear appropriate NIOSH respirator when ventilation is inadequate and occupational exposure limits are exceeded.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Material: Nitrile

Thickness: 4 mil

Breakthrough time: 2 hours

Eye protection:



Safety glasses

Body protection:

Protective work clothing

Protection may be required for spills.

Limitation and supervision of exposure into the environment

No relevant information available.

Risk management measures No relevant information available.

9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance:

Form:

Aerosol

Color:

According to product specification

Odor:

Characteristic

Odor threshold:

Not determined.

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· pH-value:	Not determined.
· Melting point/Melting range:	Not applicable, as aerosol.
· Boiling point/Boiling range:	Not applicable, as aerosol.
· Flash point:	Not applicable, as aerosol.
· Flammability (solid, gaseous):	Not applicable.
· Auto-ignition temperature:	Not determined.
· Decomposition temperature:	Not determined.
· Danger of explosion:	Not determined.
· Explosion limits	
Lower:	Not determined.
Upper:	Not determined.
· Oxidizing properties:	Non-oxidizing.
· Vapor pressure:	Not determined.
· Density:	
Relative density:	Not determined.
Vapor density:	Not determined.
Evaporation rate:	Not applicable.
· Solubility in / Miscibility with Water:	Partly miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Other information	No relevant information available.

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
Danger of receptacles bursting because of high vapor pressure if heated.
- **Possibility of hazardous reactions**
Reacts with strong oxidizing agents.
Toxic fumes may be released if heated above the decomposition point.
- **Conditions to avoid** Avoid acids.
- **Incompatible materials** Oxidizers
- **Hazardous decomposition products**
Under fire conditions only:
Carbon monoxide and carbon dioxide
Danger of toxic fluorine based pyrolysis products.

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11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.
- **LD/LC50 values that are relevant for classification:** None.
- **Primary irritant effect:**
- **On the skin:** Based on available data, the classification criteria are not met.
- **On the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.
- **Subacute to chronic toxicity:** No relevant information available.
- **IARC (International Agency for Research on Cancer):**
None of the ingredients are listed.
- **NTP (National Toxicology Program):**
None of the ingredients are listed.
- **OSHA-Ca (Occupational Safety & Health Administration):**
None of the ingredients are listed.
- **Probable route(s) of exposure:**
Eye contact.
Skin contact.
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity** No relevant information available.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Additional ecological information**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Other adverse effects** No relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Contact waste processors for recycling information.
The user of this material has the responsibility to dispose of unused material, residues and containers in

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Safety Data Sheet

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compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

- **Uncleaned packagings**

- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· UN-Number	
· DOT, ADR/RID/ADN, IMDG, IATA	UN1950
· UN proper shipping name	
· DOT	Aerosols
· ADR/RID/ADN, IMDG	AEROSOLS
· IATA	Aerosols, non-flammable
· Transport hazard class(es)	
· DOT	
	
· Class	2
· Label	2.2
· ADR/RID/ADN	
	
· Class	2.2 5A
· Label	2.2
· IMDG, IATA	
	
· Class	2
· Label	2.2
· Packing group	Aerosols are not assigned a packing group.
· Environmental hazards	
· Marine pollutant:	No
· Special precautions for user	Not applicable.
· EMS Number:	F-D,S-U
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

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Trade name: Fix-A-Flat Tire Sealant/Inflator

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· Transport/Additional information:

· DOT



Limited Quantity for packages less than 30 kg gross and inner packagings less than 1 L.

· ADR/RID/ADN



Limited Quantity for packages less than 30 kg gross and inner packagings less than 1 L.

· IMDG



Limited Quantity for packages less than 30 kg gross and inner packagings less than 1 L.

· IATA



Limited Quantity for packages less than 30 kg gross and inner packagings less than 1 L.

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture

· United States (USA)

· SARA

· Section 302 (extremely hazardous substances):

None of the ingredients are listed.

· Section 355 (extremely hazardous substances):

None of the ingredients are listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

· TSCA (Toxic Substances Control Act)

All ingredients are listed or exempt.

· Proposition 65 (California)

· Chemicals known to cause cancer:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity for females:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity for males:

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Safety Data Sheet

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None of the ingredients are listed.

- Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

- EPA (Environmental Protection Agency):

None of the ingredients are listed.

- IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

- Canadian Domestic Substances List (DSL):

All ingredients are listed or exempt.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

OSHA: Occupational Safety & Health Administration

Press. Gas: Gases under pressure – Compressed gas

- Sources

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor/internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaassen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

Website: www.chemtelinc.com



Valvoline

SAFETY DATA SHEET	Revision Date: 06/07/2018
	Print Date: 9/10/2018
	SDS Number: R0200299
Valvoline™ Automatic Transmission Fluid VX14838	Version: 1.5

29 CFR 1910.1200 (OSHA HazCom 2012)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Trade name : Valvoline™
Automatic Transmission Fluid

Details of the supplier of the safety data sheet

Valvoline LLC
100 Valvoline Way
Lexington, KY 40509
United States of America (USA)
1-800-TEAMVAL (1-800-832-6825)

Emergency telephone number

1-800-VALVOLINE (1-800-825-8654)

Regulatory Information Number

1-800-TEAMVAL (1-800-832-6825)

Product Information

1-800-TEAMVAL (1-800-832-6825)

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).

GHS label elements

This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Classification	Concentration (%)
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	64742-54-7	This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).	>=90.00 - <=100.00



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HYDROTREATED LIGHT PARAFFINIC DISTILLATE	64742-55-8	Asp. Tox. 1; H304	>=10.00 - < 15.00
MINERAL OIL		This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).	>=1.50 - < 5.00
METHACRYLATE COPOLYMER		Eye Irrit. 2A; H319	>=1.50 - < 5.00

SECTION 4. FIRST AID MEASURES

- General advice : No hazards which require special first aid measures.
- If inhaled : If breathed in, move person into fresh air.
If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.
- In case of eye contact : Remove contact lenses.
Protect unharmed eye.
- If swallowed : Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : Acute aspiration of large amounts of oil-laden material may produce a serious aspiration pneumonia. Patients who aspirate these oils should be followed for the development of long-term sequelae. Repeated aspiration of small quantities of mineral oil can produce chronic inflammation of the lungs (i.e. lipoid pneumonia) that may progress to pulmonary fibrosis. Symptoms are often subtle and radiological changes appear worse than clinical abnormalities. Occasionally, persistent cough, irritation of the upper respiratory tract, shortness of breath with exertion, fever, and bloody sputum occur. Inhalation exposure to oil mists below current workplace exposure limits is unlikely to cause pulmonary abnormalities.

Signs and symptoms of exposure to this material through

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Valvoline™ Automatic Transmission Fluid VX14838		Version: 1.5

breathing, swallowing, and/or passage of the material through the skin may include:
 acne
 stomach or intestinal upset (nausea, vomiting, diarrhea)
 irritation (nose, throat, airways)

Notes to physician : No hazards which require special first aid measures.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
 Water spray
 Foam
 Carbon dioxide (CO₂)
 Dry chemical
- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : carbon dioxide and carbon monoxide
 Hydrocarbons
- Specific extinguishing methods :
 Product is compatible with standard fire-fighting agents.
- Further information : Standard procedure for chemical fires.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
- Environmental precautions : Prevent further leakage or spillage if safe to do so.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
 Keep in suitable, closed containers for disposal.
- Other information : Comply with all applicable federal, state, and local regulations.



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Valvoline™ Automatic Transmission Fluid

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VX14838

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Smoking, eating and drinking should be prohibited in the application area.
For personal protection see section 8.
- Materials to avoid : No materials to be especially mentioned.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	64742-54-7	TWA	5 mg/m ³ Mist	OSHA Z-1
		TWA	5 mg/m ³ Inhalable fraction	ACGIH
		TWA	5 mg/m ³ Mist	OSHA P0
		TWA	5 mg/m ³ Mist	NIOSH REL
		ST	10 mg/m ³ Mist	NIOSH REL
		PEL	5 mg/m ³ particulate	CAL PEL
HYDROTREATED LIGHT PARAFFINIC DISTILLATE	64742-55-8	TWA	5 mg/m ³ Mist	OSHA Z-1
		TWA	5 mg/m ³ Inhalable fraction	ACGIH
		TWA	5 mg/m ³ Mist	OSHA P0
		TWA	5 mg/m ³ Mist	NIOSH REL
		ST	10 mg/m ³ Mist	NIOSH REL
		PEL	5 mg/m ³ particulate	CAL PEL
MINERAL OIL		TWA	5 mg/m ³ Mist	OSHA Z-1
		TWA	5 mg/m ³ Inhalable fraction	ACGIH
		TWA	5 mg/m ³ Mist	OSHA P0



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	TWA	5 mg/m ³ Mist	NIOSH REL
	ST	10 mg/m ³ Mist	NIOSH REL
	PEL	5 mg/m ³ particulate	CAL PEL

Engineering measures

: General room ventilation should be adequate for normal conditions of use. However, if unusual operating conditions exist, provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.

Eye protection

: Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.

Skin and body protection

: Wear as appropriate:
Safety shoes
Wear resistant gloves (consult your safety equipment supplier).

Hygiene measures

: General industrial hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : liquid

Colour : red

Odour : hydrocarbon-like

Odour Threshold : No data available

pH : No data available

Melting point/freezing point : No data available

Boiling point/boiling range : No data available

Flash point : 394 - 480 °F / 201 - 249 °C
Method: Cleveland open cup

Evaporation rate : > 1



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Ethyl Ether

Flammability (solid, gas)	: No data available
Upper explosion limit	: 6 %(V) GLP: Calculated Explosive Limit
Lower explosion limit	: 1 %(V) GLP: Calculated Explosive Limit
Vapour pressure	: 0.0133333 hPa (21.11 °C) Calculated Vapor Pressure
Relative vapour density	: No data available
Relative density	: No data available
Density	: 0.862 g/cm3 (15.56 °C)
Solubility(ies)	
Water solubility	: No data available
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Thermal decomposition	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: ca. 43 mm ² /s (40 °C)
Oxidizing properties	: No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No decomposition if stored and applied as directed.
Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: Product will not undergo hazardous polymerization.
Conditions to avoid	: excessive heat
Incompatible materials	: Strong oxidizing agents

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METHACRYLATE COPOLYMER:

Result: Irritating to eyes.

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Product:

Assessment: Does not cause skin sensitisation.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Product:

No aspiration toxicity classification

Components:

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

No aspiration toxicity classification

HYDROTREATED LIGHT PARAFFINIC DISTILLATE:

May be fatal if swallowed and enters airways.

Further information

Product:

Remarks: No data available

Carcinogenicity:

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SECTION 12. ECOLOGICAL INFORMATION

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Ecotoxicity

Product:

Ecotoxicology Assessment

Acute aquatic toxicity : Not classified based on available information.

Chronic aquatic toxicity : Not classified based on available information.

Components:

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Toxicity to fish : LL50 (Fish): > 100 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EL50 (Aquatic invertebrates): > 10,000 mg/l
Exposure time: 48 h

Toxicity to algae : EL50 (Algae, algal mat (Algae)): > 100 mg/l
Exposure time: 72 h

Toxicity to fish (Chronic toxicity) : NOEC (Fish): 10 mg/l

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Aquatic invertebrates): 10 mg/l

Persistence and degradability

Components:

No data available

Bioaccumulative potential

Components:

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Partition coefficient: n-octanol/water : log Pow: Expected > 7

No data available

Mobility in soil

Components:

No data available

Other adverse effects

No data available

Product:

Additional ecological information : No data available

Components:

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods



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General advice : Dispose of in accordance with all applicable local, state and federal regulations.

Contaminated packaging : Empty remaining contents.

SECTION 14. TRANSPORT INFORMATION

International transport regulations

REGULATION

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.

U.S. DOT - ROAD

Not dangerous goods

CFR_RAIL_C

Not dangerous goods

U.S. DOT - INLAND WATERWAYS

Not dangerous goods

TDG_ROAD_C

Not dangerous goods

TDG_RAIL_C

Not dangerous goods

TDG_INWT_C

Not dangerous goods

INTERNATIONAL MARITIME DANGEROUS GOODS

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

Not dangerous goods



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MX_DG

Not dangerous goods

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Marine pollutant	no
------------------	----

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

DSL : All components of this product are on the Canadian DSL

AICS : On the inventory, or in compliance with the inventory

ENCS : On the inventory, or in compliance with the inventory

KECI : On the inventory, or in compliance with the inventory

PICCS : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

TSCA : On TSCA Inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)



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SECTION 16. OTHER INFORMATION

Further information

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NFPA:	HMIS III:						
<p>Flammability</p> <p>Special hazard.</p>	<table border="1"><tr><td>HEALTH</td><td>0</td></tr><tr><td>FLAMMABILITY</td><td>1</td></tr><tr><td>PHYSICAL HAZARD</td><td>0</td></tr></table> <p>0 = not significant, 1 = Slight, 2 = Moderate, 3 = High 4 = Extreme, * = Chronic</p>	HEALTH	0	FLAMMABILITY	1	PHYSICAL HAZARD	0
HEALTH	0						
FLAMMABILITY	1						
PHYSICAL HAZARD	0						

NFPA Flammable and Combustible Liquids Classification

Combustible Liquid Class IIIB

Full text of H-Statements

- H304 May be fatal if swallowed and enters airways.
H319 Causes serious eye irritation.

Sources of key data used to compile the Safety Data Sheet

Valvoline internal data including own and sponsored test reports

The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Valvoline's Environmental Health and Safety Department (1-800-VALVOLINE).

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

ACGIH : American Conference of Industrial Hygienists

BEI : Biological Exposure Index

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CAS : Chemical Abstracts Service (Division of the American Chemical Society).

CMR : Carcinogenic, Mutagenic or Toxic for Reproduction

FG : Food grade

GHS : Globally Harmonized System of Classification and Labeling of Chemicals.

H-statement : Hazard Statement

IATA : International Air Transport Association.

IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO : International Civil Aviation Organization

ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"

IMDG : International Maritime Code for Dangerous Goods

ISO : International Organization for Standardization

logPow : octanol-water partition coefficient

LCxx : Lethal Concentration, for xx percent of test population

LDxx : Lethal Dose, for xx percent of test population.

ICxx : Inhibitory Concentration for xx of a substance

Ecxx : Effective Concentration of xx

N.O.S.: Not Otherwise Specified

OECD : Organization for Economic Co-operation and Development

OEL : Occupational Exposure Limit

P-Statement : Precautionary Statement

PBT : Persistent , Bioaccumulative and Toxic

PPE : Personal Protective Equipment

STEL : Short-term exposure limit

STOT : Specific Target Organ Toxicity

TLV : Threshold Limit Value

TWA : Time-weighted average

vPvB : Very Persistent and Very Bioaccumulative

WEL : Workplace Exposure Level

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act

DOT : Department of Transportation

FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act

HMIRC : Hazardous Materials Information Review Commission

HMIS : Hazardous Materials Identification System

NFPA : National Fire Protection Association

NIOSH : National Institute for Occupational Safety and Health

OSHA : Occupational Safety and Health Administration

PMRA : Health Canada Pest Management Regulatory Agency

RTK : Right to Know

WHMIS : Workplace Hazardous Materials Information System



Material Safety Data Sheet

MSDS: 332

SECTION 1: CHEMICAL PRODUCT AND COMPANY INFORMATION

Company:
IDQ Operating, Inc.
2901 W Kingsley Rd.
Garland, Texas 75041
Phone No.: 1-888-396-0422
CHEMTREC Phone No.: 1-800-298-9164

HAZARD RATING		SCALE
Health	1	0 = Insignificant
Fire:	0	1 = Slight
Reactivity:	0	2 = Moderate
Special:	--	3 = High
Toxicity:	1	4 = Extreme

Product Description: Automotive Refrigerant with UV Dye

Name: 332 Quest R-134A UV Dye 5 Shot, 2.1 oz
(Standard package contains 2.1 oz avoirdupois)

Product Code: 332

MSDS Date: 1-19-10

SECTION 2: COMPOSITION AND INFORMATION ON INGREDIENTS

No.	Description	CAS Reg. No.	Units	Amount
1	1,1,1,2-Tetrafluoroethane	811-97-2	% vol	35-65
2	Other Chloride Content	NA	% vol	0-0.01
3	Proprietary Ingredients	NA	% vol	35-65

NA: Not Available; ppm: parts per million

Note: 1 ppm equals 3.8 mg/m³; 5 ppm equals 19 mg/m³; 10 ppm equals 38 mg/m³; 100 ppm equals 380 mg/m³.

SECTION 3: HAZARDS INFORMATION

Portals of Entry: Inhalation, ingestion, eye contact, skin contact, and dermal absorption.

Inhalation: Inhalation of high vapor concentrations can cause anesthetic effects including dizziness, weakness, nausea, and unconsciousness. It can act as an asphyxiant by limiting available oxygen. Very high doses can cause abnormal heart rhythm which is potentially fatal. Breathing high concentration vapors or prolonged breathing vapors can cause irritation of the nose, throat, mucous membranes, and lungs as well as headaches, drowsiness, and fatigue. Extreme inhalation can cause loss of coordination and unconsciousness.

Eye Contact: Liquid splashes may cause eye irritation. Vapor spray may cause freeze burns. Vapors can cause eye irritation.

Skin Contact: Vapor spray can cause freeze burns. Product can cause skin irritations, dermatitis, defatting of skin, adsorption of certain components in product.

Ingestion: A large percentage of the product is a gas at Standard Temperature and Pressure (STP) which would not allow much of the product to be ingested. The liquid material at STP, if ingested, could cause nausea, gastrointestinal disturbances, headaches, drowsiness, vertigo, gastrointestinal disturbance, abdominal pain, and dizziness.

Delayed Effects: Prolonged and repeated overexposure can cause irritation of the respiratory tract and mucous membranes, central nervous system (CNS) effects, blood dysfunction, and kidney effects.

HEALTH EFFECTS FROM OVEREXPOSURE:

Primary Routes of Exposure: Skin and inhalation.

SECTION 4: FIRST AID MEASURES

Inhalation: Inhalation under normal exposure should not cause problems; however if inhalation has resulted in symptoms, move patient to fresh air. If breathing is difficult, give oxygen. Give artificial respiration if breathing has stopped. Get prompt medical attention.

Eye Contact: Immediately flush eyes with a large amount of water for at least 15 minutes. If symptoms exist and/or persist, get prompt medical attention.

Skin Contact: Wash affected skin areas thoroughly with soap and water. Remove contaminated clothing. If skin irritation persists, see a physician.

Ingestion: If swallowed, give large quantities of water to drink. Induce vomiting. Careful gastric lavage may be indicated. Immediately see a physician. Never give anything by mouth nor induce vomiting of an unconscious person.

SECTION 5: FIRE FIGHTING MEASURES

Unusual Hazards: Toxic fumes are generated when material is exposed to fire and fire conditions.

Extinguishing Agents: Use the following extinguishing media when fighting fires involving this material: polar solvent foam, carbon dioxide, dry chemical, and water spray.

Personal Protective Equipment: Wear self-contained breathing apparatus and full protective gear.

Special Precautions: Use water spray to cool large containers exposed to fire. Vapors are denser than air and will have a tendency to accumulate in lower areas which can cause the vapors to concentrate and suffocate. The much reduced part of the product that is liquid at STP can be flammable. If the product's liquid portion is exposed to fire or an ignition source that results in flammability, extinguish with polar solvent foam, carbon dioxide, dry chemical, and water spray. The product is typically packaged in 2.1 oz cans, which aids in isolating product for flammability but creates problems if the pressurized cans are exposed to fire or excessive heat that could result in sudden can rupture.

FIRE AND EXPLOSIVE PROPERTIES:

PROPERTY	PACKAGED PRODUCT	LIQUID PORTION OF PRODUCT
Flash Point (°C); [°F]:	Non-Flammable at STP	67; 203*

Auto-Ignition Temperature (°C):	>350	>350
Lower Explosive Limit (ppm):	Non-Flammable at STP	60,000
Upper Explosive Limit (ppm):	Non-Flammable at STP	360,000

*: Flash point identified for the liquid portion is for a volatile component constituting a small percentage of the liquid portion of the product and would have limited influence on the flammability of the liquid portion due to the mixture of volatile components with higher flash points which would be mixed with this component in the vapor phase. The mixture of volatile components will be defined by Raoult's Law of Partial Vapor Pressures. The remainder of the volatile liquid portion in the product has flash points above NA and constitutes ~ 0% by weight. The non-volatile liquid portion in the product has flash points above 67° C, 203° F and constitutes ~ 50% by weight.

SECTION 6: ACCIDENTAL SPILL OR LEAK RELEASE INFORMATION

Personal Protection: Appropriate protective equipment must be worn when handling a large spill of this material. See the PERSONAL PROTECTION MEASURES Section for recommendations. If exposed to material during clean-up operations, see the FIRST AID PROCEDURES Section for actions to follow.

Procedures: Evacuate the spill area. Floor may be slippery if non-volatile components in product (< 20% volume) have wetted the floor; use care to avoid falling. Ventilate the spill area. Avoid breathing vapor. Contain non-volatile material spills immediately with inert adsorption materials. Transfer liquids and solid adsorption materials and diking material to separate suitable containers for recovery or disposal.

CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

SECTION 7: HANDLING AND STORAGE

Storage Conditions: Store in a cool, well ventilated place. Keep containers dry. Store product away from reactive and corrosive materials. The minimum recommended storage temperature for this material is -29° C/ -20° F. The maximum storage temperature is 49° C/ 120° F.

Handling Procedures: Avoid causing and inhaling high concentrations of vapor. The vapor concentration levels in air need to be kept below occupational exposure limits and keep as low as practicable. Do not mix product with air or oxygen under pressure. Avoid exposure of product to flame or very hot surfaces. Vapors can be evolved when material is being used in processing operations. See FACILITY CONTROL MEASURES Section for types of ventilation required.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Respiratory Protection: A respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. If respiratory protection is needed, use, MSHA-NIOSH approved respirator for organic vapors. None required if airborne concentrations are maintained below the TWA/TLV's listed in the COMPONENT EXPOSURE INFORMATION Section.

Up to 10 times the TWA/TLV: Wear a half-mask, air purifying respirator.

Up to 1000 ppm organic vapor: Wear an approved full-face piece, air-purifying respirator.

Above 1000 ppm organic vapor or unknown: Wear an approved positive pressure mode or an approved full-face piece airline respirator in the positive pressure mode with emergency escape provisions.

Air purifying respirators should be equipped with organic vapor cartridges.

Eye Protection: Use eye goggles and/or face shield.

Hand Protection: The gloves listed below may provide protection against permeation. Gloves of other chemically resistant materials may not provide adequate protection: Polyvinyl alcohol and Viton.

Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough.

Other Protection: Use chemically resistant apron or other impervious clothing to avoid prolonged or repeated skin contact.

FACILITY CONTROL MEASURES:

Ventilation: Use normal local exhaust ventilation with a minimum capture velocity of 100 ft/min (0.5 m/sec) at the point of vapor or dust evolution.

Other Protective Equipment: Facilities storing and utilizing this material should be equipped with an eyewash facility and a safety shower.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

TYPICAL PHYSICAL PROPERTIES:

PROPERTY	METRIC UNITS	ENGLISH UNITS
Appearance:	Product in Aerosol Container	Product in Aerosol Container
Color:	Yellow	Yellow
State:	Liquid under Gas Pressure	Liquid under Gas Pressure
Odor Characteristics:	Ethereal & Bland	Ethereal & Bland
Viscosity (CP @ 20° C); [CP @ 68° F]:	32	32
Specific Gravity (d/do 4°C); [d/do 39°F]	1.128	1.128
Density (gr/cm ³); [lb/gal]	1.13	9.40
Vapor Density (Air = 1.0):	3.3	3.3

Vapor Pressure (mm Hg @ 20° C); [psia]:	4268	85.6
Melting Point (°C); [°F]:	Extremely Low; < -26 °C	Extremely Low; < -15 °F
Boiling Point (°C); [°F]:	-26.5	-15.7
Solubility in Water (gr/100 cm³); [lb/100 in³]:	1.3; very slightly soluble	1.3; very slightly soluble
Evaporation Rate (n-butyl acetate = 1.0):	> 120	> 120
pH (product or water extract)	< 7	< 7
Percent Volatility (% wt):	50	50

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable under normal conditions.

Hazardous Decomposition Products: Thermal decomposition may yield toxic decomposition products which include alkyl low molecular weight components, organic chlorides, COx, SOx, NOx, POx, hydrochloric acid, hydrofluoric acid, organic pyrolytic components, and phosgene.

Hazardous Polymerization: Product will not undergo polymerization.

Incompatibility: Avoid contact with strong oxidizing and reducing agents, fine particulate metals, magnesium and alloy containing more than 2 percent magnesium. Product can react under certain conditions with alkali or alkali earth metals such as sodium, potassium or barium and other Group IA and IIA of the Periodic Table of Elements.

SECTION 11: TOXICOLOGICAL INFORMATION

ACCIDENT PREVENTION INFORMATION:

COMPONENT EXPOSURE INFORMATION:

Component Information:

No.	Description	CAS Reg. No.	Units	Maximum Amount
1	1,1,1,2-Tetrafluoroethane	811-97-2	% vol	65
2	Other Chloride Content	NA	% vol	0.01
3	Proprietary Ingredients	NA	% vol	65

Exposure Information for Specific Component:

No.	Health Flam. Reactivity Component				OSHA		ACGIH			
	Rating	Rating	Rating	Component	TWA	STEL	TWA	STEL	IDLH	HAP
1	1	0	0	ppm	1000	NA	NA	NA	NA	No
2	2	0	0	ppm	100	150	100	150	10,000	No

3	1	1	0	ppm	NA	NA	NA	NA	NA	No
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SECTION 12: ECOLOGICAL INFORMATION

Persistence and Degradation: Decomposes comparatively rapidly in the lower atmosphere (troposphere). Atmospheric lifetime is 15.6 years. Products of decomposition will be highly dispersed and hence will have a very low concentration. It is not a significant contributor to photochemical smog and is not considered to be a VOC. It is not considered as an ozone depleting chemical.

SECTION 13: DISPOSAL INFORMATION

WASTE DISPOSAL:

Procedure: For disposal, dispose this material at a facility that complies with local, state, and federal regulations.

SECTION 14: TRANSPORTATION INFORMATION

DOT Hazard Description:

Proper Shipping Name: Consumer Commodity

Hazard Class: ORM-D

Identification Number: UN 1950

Packing Group: NA

Hazardous Substance (RQ): NA

Placard/Label: NA

SECTION 15: REGULATORY INFORMATION

EPA Regulation:

SARA SECTION 311/312 HAZARDS: Acute Health, Chronic Health

All components of this product are on the TSCA list.

SARA Title III Section 313 Supplier Notification: This product contains the indicated “*” toxic chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372. This information must be included in all MSDSs that are copied and distributed for this material.

SARA TITLE III INGREDIENTS	CAS NO.	% WT.	REGULATION SECTION	RQ (LBS)
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None

If > NA lbs of this product is in one container, the Reportable Quantity “RQ” of Xylene(s) is exceeded. Based on the composition of SARA Title III ingredients and the RQs of ingredients, listed above, xylene(s) is the most restrictive of the product composition. Typically this product is packaged in 2.1 oz containers.

State Regulations: This product meets requirements of Southern California AQMD Rule 443.1 and Similar Regulations California Proposition 65: This product contains the following chemical known to the State of California to cause cancer: NA

SECTION 16: OTHER INFORMATION

All information, recommendations, and suggestions made by IDQ, Inc. (“Company”) appearing herein concerning our product are based upon tests and data believed to be reliable. However, because of the variable characteristics of analytical procedures and samples, and the inability to control its customers’ uses of the information and recommendations, or the related products or materials, Company makes NO WARRANTY, EXPRESS OR IMPLIED as to the accuracy of the information or recommendations or that such are fit for any general or specific purpose, whatsoever. Company shall have NO LIABILITY arising from the use by its customers or any third parties of the information and recommendations, and it shall be each customer’s sole responsibility to determine the suitability for its own use of any information or recommendations provided by Company.

SAFETY DATA SHEET



This Safety Data Sheet (SDS) complies with the requirements of the U.S. Federal Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200, as updated in 2012) and equivalent state Standards. It has also been developed in accordance with the United Nations Globally Harmonized System of Classification of Chemicals (GHS) and the Canadian Workplace Hazardous Materials Information System (WHMIS). Refer to Section 16 of this document for the definition of terms and abbreviations.

SECTION 1: IDENTIFICATION

1.1 PRODUCT IDENTIFIER

- ITEM NUMBER(S): 386401, 386411, 386421
- PRODUCT NAME:
WAXIE-Green Pomeberry Foam Handwash CleanTouch LX System
 - 700 mL: 386401
 - 1200 mL: 386411
- **WAXIE-Green Pomeberry Foam Handwash**
 - 2.3 L: 386421

1.2 RELEVANT IDENTIFIED USES OF THE MIXTURE

- RECOMMENDED USE: For personal care in occupational settings.
- IDENTIFIED USERS: For sale to, use and storage by service persons only.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

- MANUFACTURER/
SUPPLIER: **WAXIE Sanitary Supply**
- ADDRESS: 9353 Waxie Way; San Diego, CA 92123-1036
- BUSINESS PHONE: 1-800-995-4466
- EMERGENCY PHONE: 1-800-255-3924 (CHEMTEL; 24 hours)

1.4 OTHER PERTINENT INFORMATION

- Third-Party Certification: ECOLOGO CCD-104/UL 2784 Certified.

SECTION 2: HAZARD IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

OSHA/HCS Status

Classification of the Substance or Mixture Acute toxicity, Oral (Category 5); Serious eye damage/Irritation (Category 2B)

2.2 LABEL ELEMENTS

Hazard Pictograms

Not applicable.

Signal Word

Not applicable.

Hazard Statements

May be harmful if swallowed. Irritating to the eyes.

Precautionary Statements

Prevention

Keep out of reach of children.

Response

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. If eye irritation persists, see a physician.

Storage

None specified. See section 7 for details.

Disposal

None specified. See section 13 for details.

SECTION 2: HAZARD IDENTIFICATION (Continued)

2.3 OTHER PERTINENT HAZARDS NOT OTHERWISE CLASSIFIED

- **OTHER POTENTIAL HEALTH EFFECTS:** Not applicable.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 SUBSTANCES/MIXTURES

COMPONENT	CAS NUMBER	GHS HAZARD CLASSIFICATION FOR COMPONENT	% (w/w)
Alcohols, C10-16, ethoxylated, sulfates, sodium salts	68585-34-2	Serious eye damage (Category 2A); Skin irritation/corrosion (Category 2B)	Greater or equal to 1; Less than 5.
Cocamidopropyl Betaine	61789-40-0	Serious eye damage (Category 1)	Greater or equal to 1; Less than 5.
Glycerine	56-81-5	Not classified.	Greater or equal to 1; Less than 5.
Water and other ingredients that do not contribute physical or health hazards at the concentrations present in the product.			Balance

SECTION 4: FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

AREA EXPOSED

Eye Contact	Flush with copious amounts of water. "Roll" eyes during flush. Check for and remove contact lenses. Seek medical attention if irritation persists.
Skin Contact	Not applicable: Product for use on skin.
Inhalation	Obtain fresh air. Blow nose.
Ingestion	If conscious only: Rinse mouth with water. Drink several cups of water. Do not induce vomiting. Contact a Poison Control Center or physician for instructions.

4.2 MOST IMPORTANT ACUTE AND CHRONIC EXPOSURE SYMPTOMS

- **ACUTE HEALTH EFFECTS:**

AREA EXPOSED

Eye Contact	May cause eye irritation.
Skin Contact	Prolonged contact has the potential to be mildly irritating.
Inhalation	May cause mild respiratory tract irritation; symptoms may include coughing and sneezing depending on volume of mist/spray inhaled.
Ingestion	May cause gastrointestinal system irritation; symptoms may include pain, sore throat, nausea and vomiting if large volumes are ingested.

- **CHRONIC HEALTH EFFECTS:** Not applicable.

- **TARGET ORGANS:** Skin.

- **GENERAL INFORMATION: For all exposures:** In case of accident, or if you feel unwell, seek medical advice immediately. Take this document and a copy of the label to the healthcare professional.

- **RECOMMENDATIONS TO PHYSICIANS:** Treat symptomatically.

- **MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:** None reported.

SECTION 5: FIREFIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

- **RECOMMENDED FIRE EXTINGUISHING MEDIA:** Water Spray, Water Jet, Dry Powder, Foam, Carbon Dioxide, Halon, or any other.
- **UNSUITABLE FIRE EXTINGUISHING MEDIA:** None known.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

- **NFPA FLAMMABILITY CLASSIFICATION:**

NFPA Rating



NFPA Classification

Not flammable.

- **UNUSUAL HAZARDS IN FIRE SITUATIONS:**

Decomposition Products

Carbon dioxide, carbon monoxide, nitrogen and sodium compounds and irritating vapors.

Explosion Sensitivity to Mechanical Impact

Not applicable.

Explosion Sensitivity to Static Discharge

Not applicable.

5.3 ADVICE FOR FIREFIGHTERS

- Self-Contained Breathing Apparatus and full protective equipment for fire response should be worn in any situation. Move containers from fire area if it can be done without risk to personnel. Otherwise, use water spray to keep fire-exposed containers cool. Because this product is a soap, any equipment that comes in contact with this solution can be rinsed thoroughly with water and then returned to service.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES

- **RESPONSE TO INCIDENTAL RELEASES:** Personnel who have received basic chemical safety training can generally handle small-scale releases. Gloves and safety glasses should be worn when cleaning-up spills, to avoid prolonged contact and splash protection. Use caution during clean-up; contaminated floors and items may be slippery.
- **RESPONSE TO NON-INCIDENTAL RELEASES:** Generally, releases of this product will be no larger than the loss of one shipment of material. Subsequently, personnel can follow the instructions for incidental releases. As needed, respond to non-incidental releases of this product (such as the simultaneous destruction of several pallets of this product) by clearing the impacted area and contacting appropriate emergency personnel.
- **RESPONSE PROCEDURES FOR ANY RELEASE:** Absorb spilled liquid with polypads or other suitable absorbent materials. Rinse area thoroughly. Because this product is a soap solution, all items that come in contact with the solution can be returned to service after rinsing.

6.2 ENVIRONMENTAL PRECAUTIONS

- Avoid response actions that can cause a release of a significant amount of product (more than 4 gallons) into the environment. Avoid accidental dispersal of spilled material into soil, waterways and sewers.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

- **SPILL RESPONSE EQUIPMENT:** Polypad or other absorbent material.

6.4 REFERENCES TO OTHER SECTIONS

- **SECTION 8:** For exposure levels and detailed personal protective equipment recommendations.
- **SECTION 13:** For waste handling guidelines.

SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Hygiene Practices	Keep out of reach of children. Follow good chemical hygiene practices. Avoid inhalation of mists and sprays. Avoid contact with eyes. Clean up spilled product immediately.
Handling Practices	Employees must be appropriately trained to use this product safely as needed. Keep containers closed when not in use.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Storage Practices	Ensure all containers are correctly labeled. Store containers away from direct sunlight, sources of intense heat, or where freezing is possible. Store this product away from incompatible chemicals. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged.
Incompatibilities	See Section 10 (Stability and Reactivity).

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

- AIRBORNE EXPOSURE LIMITS:**

COMPONENT	ACGIH TLV	OSHA PEL	NIOSH REL	OTHER
Glycerine	NE	15 mg/m ³ (TWA; Total Dust) 5 mg/m ³ (TWA, Respirable Fraction)	NE	NE

- BIOLOGICAL OCCUPATIONAL EXPOSURE LIMITS:** Not established.

8.2 EXPOSURE CONTROLS

Engineering Controls	Use in well-ventilated environment.
Respiratory Protection	None needed in normal circumstances of use.
Hand Protection	Neoprene, PVC, or butyl gloves are recommended during spill response only. Ensure gloves are intact prior to use.
Eye Protection	Safety glasses, during spill response only.
Body Protection	Not applicable.

8.3 PERSONAL PROTECTION SYMBOLS

Hand Protection
(Spill Response)



Eye Protection
(Spill Response)



SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear, greenish liquid.
Odor	Citrus, fruity.
Odor Threshold	Not determined.
pH	4.7-6.2
Melting Point/Freezing Point	Approx. 0°C (32 °F).
Initial Boiling Point/Boiling Range	100°C (212 °F)
Flash Point	>100°C (212 °F)
Evaporation Rate (Water = 1)	Not determined.
Flammability	Not applicable.
Upper/Lower Explosive Limits	Not applicable.
Vapor Pressure	Not determined.
Vapor Density	Not determined.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Relative Density (Density)	Approx. 1.0 (8.35 lb/gallon); 1 g/cm ³ (Specific Gravity).
Solubility	Completely soluble in water.
Partition Coefficient/n-octanol/water	Not determined.
Autoignition Temperature	Not applicable.
Decomposition Temperature	Not determined.
Viscosity	10-20 mm ² /s (20 °C)

9.2 OTHER INFORMATION

- VOC (less water & exempt): Not applicable.
- WEIGHT% VOC: Not applicable.

SECTION 10: STABILITY AND REACTIVITY

10.1 REACTIVITY

- Not reactive under typical conditions of use or handling.

10.2 CHEMICAL STABILITY

- Normally stable under standard temperatures and pressures.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

- This product is not self-reactive, water-reactive, or air-reactive.
- This product will not undergo hazardous polymerization.

10.4 CONDITIONS TO AVOID

- Avoid contact with incompatible chemicals.

10.5 INCOMPATIBLE MATERIALS

- Strong oxidizing agents, cationic materials.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

- Products of thermal decomposition of this product include oxides of carbon (i.e., carbon monoxide and carbon dioxide) as well as sodium and nitrogen compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

• ACUTE TOXICITY:

- TOXICOLOGY DATA: The following data are available for components of this product:

POLY(OXY-1,2-ETHANEDIYL), .ALPHA. - SULFO-.OMEGA.-HYDROXY- C10-16- ALKYL ETHERS, SODIUM SALTS
LD₅₀ (Oral, Rat) > 2000 mg/kg

COCAMIDOPROPYL BETAINE
LD₅₀ (Oral, Rat) > 2000 mg/kg
LD₅₀ (Dermal, Rabbit) > 1000 mg/kg

- DEGREE OF IRRITATION: Irritating to the eyes. See Section 4 (First Aid Measures) for more details. Specific data for components are as follows:

COCAMIDOPROPYL BETAINE
Skin, Rabbit = 24 hours/Irritant
Eyes, Rabbit = 24 hours/Slight Irritant the Eyes

SECTION 11: TOXICOLOGICAL INFORMATION (Continued)

- **SENSITIZATION:** This product is not reported to have skin or respiratory sensitization effects..
- **REVIEW OF ACUTE SYMPTOMS AND EFFECTS BY ROUTE OF EXPOSURE:** See Section 2 (Hazards Information) and Section 4 (First Aid Measures) for additional details.

Eyes	Irritates the eyes.
Skin	No adverse effects anticipated.
Inhalation	May cause mild respiratory tract irritation if mists are inhaled.
Ingestion	May cause gastrointestinal system irritation, especially if large quantities are ingested.

- **CHRONIC TOXICITY:**

- **CARCINOGENICITY STATUS:** Not applicable.
- **REPRODUCTIVE TOXICITY INFORMATION:** The components of this product are not reported to cause reproductive effects under typical circumstances of exposure.
- **MUTAGENIC EFFECTS:** The components of this product are not reported to cause mutagenic effects under typical circumstances of exposure.
- **SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE:** Not applicable.
- **SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE:** Not applicable.
- **ASPIRATION HAZARD:** Not applicable.

- **OTHER INFORMATION:**

- **TOXICOLOGICALLY SYNERGISTIC PRODUCTS:** None known.
- **ADDITIONAL TOXICOLOGY:** Not applicable.

SECTION 12: ECOLOGICAL INFORMATION

12.1 TOXICITY

- Based on available data, this product is not anticipated to be harmful or fatal to contaminated terrestrial or aquatic plants or animals. The following data are available for components of this product:

COCAMIDOPROPYL BETAINE

EC50 (Algae) = 2.4 mg/L/72 hours

LC50 [Cyprinodon variegates] = 1.1 mg/L/96 hours

LC50 [Pimephales promelas] = 1.11 mg/L/96 hours

NOEC (Algae) = 0.6 mg/L/72 hours; NOEC (Fish) = 100 days/ 0.135 mg/L

12.2 PERSISTENCE AND DEGRADABILITY

- When released into the soil, the components of this product are expected to biodegrade, dissipate in soils via oxidation, or otherwise chemically degrade or photo-decompose via solar radiation. The following data are available for components of this product:
 - **COCAMIDOPROPYL BETAINE:** Aerobic - Exposure time 28 days = 91.6%; Readily Biodegradable.

12.3 BIOACCUMULATIVE POTENTIAL

- This product is not anticipated to bioaccumulate significantly.

12.4 MOBILITY IN SOIL

- It is expected that this product will have some mobility in soil.

12.5 OTHER ADVERSE EFFECTS

- None reported.

SECTION 13: DISPOSAL CONSIDERATION

13.1 WASTE TREATMENT METHODS

- Dispose of in accordance with local, State and Federal regulations.

13.2 DISPOSAL CONSIDERATIONS

- **EPA RCRA WASTE CODE:** Not applicable.

SECTION 14: TRANSPORT INFORMATION

14.1 DANGEROUS GOODS BASIC DESCRIPTION AND OTHER TRANSPORT INFORMATION

- **DEPARTMENT OF TRANSPORTATION HAZARDOUS MATERIALS SHIPPING REGULATIONS:**

UN/NA Number	Proper Shipping Name	Packing Group	Hazard Class	Label	North American Emergency Response Guide #	Marine Pollutant Status
NOT APPLICABLE						

- **IATA DESIGNATION:** This product is not regulated as dangerous goods by the International Air Transport Association.
- **IMO DESIGNATION:** This product is not regulated as dangerous goods by the International Maritime Organization.

14.2 ENVIRONMENTAL HAZARDS

- None described, as related to transportation.

14.3 SPECIAL PRECAUTIONS FOR USERS

- Not applicable.

14.4 TRANSPORT IN BULK

- Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1 SAFETY, HEALTH, AND ENVIRONMENTAL REGULATIONS SPECIFIC FOR THE PRODUCT

- **OTHER IMPORTANT U.S. REGULATIONS**

- **U.S. SARA HAZARD CATEGORIES (SECTION 311/312, 40 CFR 370-21):** ACUTE: No; CHRONIC: No; FIRE: No; REACTIVE: No; SUDDEN RELEASE: No
- **U.S. CERCLA REPORTABLE QUANTITY (RQ):** Not applicable.
- **U.S. TSCA INVENTORY STATUS:** All components of this product are listed on the TSCA Inventory.
- **CALIFORNIA SAFE DRINKING WATER ACT (PROPOSITION 65) STATUS:** Not applicable.

- **INTERNATIONAL REGULATIONS**

- **CANADIAN REGULATORY STATUS:** The **PRODUCT as SOLD** is not classified as hazardous under Canadian Controlled Products regulations (SOR-88-66).
 - This SDS contains all the information required by the CPR.
- **CANADIAN DSL/NDSL INVENTORY STATUS:** The listed components of this product are on the DSL/NDSL Inventory.
- **CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS:** The components of this product are not on the CEPA Priorities Substances Lists.
- **GERMAN WATER HAZARD CLASSIFICATION:** 1 (low hazard to waters).

SECTION 16: OTHER INFORMATION

16.1 INDICATION OF CHANGE

- **DATE OF REVISION:** April 17, 2015
- **SUPERCEDES:** February 16, 2105
- **CHANGE INDICATED:** Update of OSHA Hazard Communication Standard (29 CFR 1910.1200),

16.2 KEY LITERATURE REFERENCES AND SOURCES FOR DATA

- SAFETY DATA SHEETS FOR COMPONENT PRODUCTS.
- SAX – Dangerous Properties of Industrial Materials
- RTECS – Registry of Effects of Toxic Chemicals
- TOXNET – <http://toxnet.nlm.nih.gov/>

16.3 HAZARDOUS MATERIALS CLASSIFICATION SYSTEM

Product as SOLD

Health	0
Flammability	0
Physical Hazard	0

Protective Equipment

B (Spill response)

HMIS Personal Protective Equipment Rating: Occupational Use situations: B - Safety glasses and gloves (Spill Response).

16.4 DISCLAIMER

WAXIE Sanitary Supply makes no warranty, representation or guarantee as to the accuracy, sufficiency or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity and suitability of their own use, handling and disposal of this product. Since actual use by others is beyond our control, no warranty, expressed or implied, is made by WAXIE Sanitary Supply as to the effects of such use, the results to be obtained or the safety and toxicity of this product, nor does WAXIE Sanitary Supply assume any liability arising out of the use by others of this product referred to herein. The data in this SDS relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. WAXIE Sanitary Supply does not recommend blending this product with any other chemicals. All information, recommendations and data contained herein concerning this product are based upon information available at the time of writing from recognized technical sources.

16.5 ABBREVIATIONS AND ACRONYMS

ALL SECTIONS: OSHA: U.S. Federal Occupational Safety and Health Administration. WHMIS: Canadian Workplace Hazardous Materials Standard. GHS: Globally Harmonized System of Classification of Chemical Substances. REACH: European Union regulation, Registration, Evaluation, Authorization and Restriction of Chemical substances.

SECTION 2: CAS Number: Chemical Abstract Service Number, which is used by the American chemical Society to uniquely identify a chemical.

SECTION 5: NFPA: National Fire Protection Association. NFPA FLAMMABILITY CLASSIFICATION: The NFPA uses the flash point (F.I.P.) and boiling point (BP) to classify flammable or combustible liquids. Class IA: F.I.P. below 73°F and BP below 100°F. Class IB: F.I.P. below 73°F and BP at or above 100°F. Class IC: F.I.P. at or above 73°F and BP at or above 100°F. Class II: F.I.P. at or above 100°F and below 140°F. Class IIIA: F.I.P. at or above 140°F and below 200°F. Class IIIB: F.I.P. at or above 200°F. NFPA HAZARDOUS MATERIALS RATING: This is a rating system used to summarize physical and health hazards to firefighters. 0 = No Significant Hazard. 1 = Slight Hazard. 2 = Moderate Hazard. 3 = Severe Hazard. 4 = Extreme Hazard.

SECTION 8: NE: Not established. ACGIH: American Conference of Government Industrial Hygienists; TWA: Time-Weighted Average (over an 8-hour work day); STEL: Short-Term Exposure Limit (15 minute average, no more than 4-times daily and each exposure separated by one-hour minimally); C: Ceiling Limit (concentration not to be exceeded in a work environment). PEL: Permissible Exposure Limit. NIOSH: National Institute of Occupational Safety and Health; REL: Recommended Exposure Limit; IDLH: Immediately Dangerous to Life and Health Concentrations. Note: In July 1992, a court ruling vacated the more protective PELs set by OSHA in 1989. Because OSHA may enforce the more protective levels under the "general duty clause", both the current and vacated levels are presented in this document. ppm: Parts per Million. mg/m³: Milligrams per cubic meter. mppcf: Millions of Particles per Cubic Foot. BEI: Biological Exposure Limit. EL: Exposure Limit (United Kingdom). Federal Republic of Germany (DFG) Maximum Concentration Values in the Workplace (MAKs)

SECTION 9: pH: Scale (0 to 14) used to rate the acidity or alkalinity of aqueous solutions. For example, a pH value of 0 indicates a strongly acidic solution, pH of 7 indicates a neutral solution, and a pH value of 14 indicates an extremely basic solution. FLASH POINT: Temperature at which a liquid generates enough flammable vapors so that ignition may occur. AUTOIGNITION TEMPERATURE: Temperature at which spontaneous ignition occurs.

SECTION 9 (Continued): LOWER EXPLOSIVE LIMIT (LEL): The minimal concentration of flammable vapors in air which will sustain ignition. UPPER EXPLOSIVE LIMIT (UEL): The maximum concentration of flammable vapors in air which will sustain ignition. ≈: Approximately symbol. VOC: Volatile Organic Compound.

SECTION 11: CARCINOGENICITY STATUS: NTP: National Toxicology Program. IARC: International Agency for Research on Cancer.

REPRODUCTIVE TOXICITY INFORMATION: Mutagen: Substance capable of causing chromosomal damage to cells. Embryotoxin: Substance capable of damaging the developing embryo in an overexposed female. Teratogen: Substance capable of damaging the developing fetus in an overexposed female. Reproductive toxin: Substance capable of adversely affecting male or female reproductive organs or functions. TOXICOLOGY DATA: LD_{xx} or LC_{xx}: The Lethal Dose or Lethal Concentration of a substance which will be fatal to a given percentage (xx) of exposed test animals by the designate route of administration. This value is used to access the toxicity of chemical substances to humans. TD_{xx} or TC_{xx}: The Toxic Dose or Toxic Concentration of a substance which will cause an adverse effect to a given percentage (xx) of exposed test animals by the designate route of administration.

SECTION 12: EC50: Effect Concentration (on 50% of study group); BOD: Biological Oxygen Demand.

SECTION 13: RCRA: Resource Conservation and Recovery Act. The regulations promulgated under this act under Act are found in 40 CFR, Sections 260 ff, and define the requirements of hazardous waste generation, transport, treatment, storage, and disposal. EPA RCRA Waste Codes: Defined in 40 CFR Section 261.

SECTION 15: CERCLA: Comprehensive Environmental Response Compensation and Liability Act (a.k.a. "Superfund") and SARA: (Superfund Amendment and Reauthorization Act). The regulations promulgated under this Act are located under 40 CFR 300 ff. and provide "community right-to-know" requirements. TSCA: Toxic Substances Control Act: Rules regulating the manufacture and sale of chemicals found in 40 CFR 700-766. DSL/NDSL: Canadian Domestic Substances and Non-Domestic Substances Lists.

SECTION 16: HAZARDOUS MATERIALS IDENTIFICATION SYSTEM RATING: This is a rating system used by industry to summarize physical and health hazards to chemical users and was originally developed by the National Paint and Coating Association. 0 = No Significant Hazard. 1 = Slight Hazard. 2 = Moderate Hazard. 3 = Severe Hazard. 4 = Extreme Hazard.

HOJA DE DATOS DE SEGURIDAD



® Esta Hoja de datos de seguridad (SDS) cumple con los requisitos de la Norma federal de comunicación de riesgos de la Administración de Seguridad y Salud Ocupacional de los EE. UU. (CFR 29, 1910.1200, conforme a la actualización de 2012) y las normas estatales equivalentes. También ha sido desarrollado de acuerdo con el Sistema Mundialmente Armonizado de Clasificación de Productos Químicos de las Naciones Unidas (GHS) y el Sistema de Información de Materiales Peligrosos en el Lugar de Trabajo, de Canadá (WHMIS). Consulte la sección 16 de este documento para conocer la definición de los términos y abreviaturas.

SECCIÓN 1: IDENTIFICACIÓN

1.1 IDENTIFICADOR DEL PRODUCTO

- NÚMERO(S) DE ARTÍCULO: 386401, 386411, 386421
 - NOMBRE DEL PRODUCTO: **Jabón para manos en espuma con aroma a granada del sistema LX CleanTouch WAXIE-Green**
 - 700 mL: 386401
 - 1200 mL: 386411
- Jabón para manos en espuma con aroma a granada WAXIE-Green**
- 2.3 L: 386421

1.2 USOS RELEVANTES E IDENTIFICADOS DE LA MEZCLA

- USO RECOMENDADO: Para cuidado personal en entornos laborales.
- USUARIOS IDENTIFICADOS: Para la venta, uso y almacenamiento solo por parte del personal de servicio.

1.3 DETALLES DEL PROVEEDOR DE LA HOJA DE DATOS DE SEGURIDAD

- FABRICANTE/PROVEEDOR: **WAXIE Sanitary Supply**
- DIRECCIÓN: 9353 Waxie Way; San Diego, CA 92123-1036
- TELÉFONO DE OFICINA: 1-800-995-4466
- TELÉFONO DE EMERGENCIAS: 1-800-255-3924 (CHEMTEL; las 24 horas)

1.4 OTRA INFORMACIÓN PERTINENTE

- Certificación de terceros: Con certificación ECOLOGO CCD-104/UL 2784.

SECCIÓN 2: IDENTIFICACIÓN DE RIESGOS

2.1 CLASIFICACIÓN DE LA SUSTANCIA O MEZCLA

Estado según la OSHA/HCS

Clasificación de la sustancia o mezcla Toxicidad aguda, Oral (categoría 5); Daños o irritación grave en los ojos (categoría 2B)

2.2 ELEMENTOS DE LA ETIQUETA

Pictogramas de riesgo

No corresponde.

Palabra de advertencia

No corresponde.

Declaraciones del riesgo

Puede ser nocivo si se ingiere. Irritante para los ojos.

Declaraciones de precaución

Manténgase fuera del alcance de los niños.

EN CASO DE INGESTIÓN: Llame a un CENTRO DE TOXICOLOGÍA o a su médico si no se siente bien.

SI ENTRA EN CONTACTO CON LOS OJOS: Enjuague continuamente con agua durante varios minutos. Si trae lentes de contacto y es fácil quitárselos, hágalo, y siga enjuagando. Si la irritación persiste, consulte con un médico.

Almacenamiento

No se especifica. Consulte los detalles en la sección 7.

Eliminación

No se especifica. Consulte los detalles en la sección 13.

SECCIÓN 2: IDENTIFICACIÓN DE RIESGOS (continuación)

2.3 OTROS RIESGOS PERTINENTES NO CLASIFICADOS DE OTRA MANERA

- OTROS POSIBLES EFECTOS EN LA SALUD: No corresponde.

SECCIÓN 3: COMPOSICIÓN/INFORMACIÓN SOBRE INGREDIENTES

3.1 SUSTANCIAS/MEZCLAS

COMPONENTE	NÚMERO DE CAS	CLASIFICACIÓN DE RIESGO DE GHS POR INGREDIENTE	% (w/w)
Alcoholes, C10-16, etoxilados, sulfatos, sales de sodio	68585-34-2	Daño grave en los ojos (categoría 2A); Corrosión de la piel (categoría 2B)	Mayor o igual a 1; Menos de 5.
Cocamidopropil Betaina	61789-40-0	Daño grave en los ojos (categoría 1)	Mayor o igual a 1; Menos de 5.
Glicerina	56-81-5	No clasificado.	Mayor o igual a 1; Menos de 5.
El agua y otros componentes que no constituyen riesgos a la salud y físicos en las concentraciones presentes en el producto.			Balance

SECCIÓN 4: MEDIDAS DE PRIMEROS AUXILIOS

4.1 DESCRIPCIÓN DE LAS MEDIDAS DE PRIMEROS AUXILIOS

ÁREA EXPUESTA

Contacto con los ojos	Enjuague con abundante agua. Mire hacia arriba mientras se enjuaga los ojos. Quite los lentes de contacto. Si la irritación persiste, busque atención médica.
Contacto con la piel	No corresponde: Producto para uso en la piel.
Inhalación	Salga al aire fresco. Suene la nariz.
Ingestión	Si está consciente: Enjuáguese la boca con agua. Beba varios vasos de agua. No induzca el vómito. Póngase en contacto con un Centro para el Control de Envenenamientos o con un médico y siga las indicaciones.

4.2 SÍNTOMAS AGUDOS Y CRÓNICOS MÁS IMPORTANTES COMO RESULTADO DE UNA EXPOSICIÓN

- EFECTOS AGUDOS EN LA SALUD:

ÁREA EXPUESTA

Contacto con los ojos	Puede provocar irritación en los ojos.
Contacto con la piel	El contacto prolongado puede tener un efecto de irritación moderado.
Inhalación	Puede ocasionar irritación moderada en las vías respiratorias. Los síntomas pueden incluir tos y estornudos dependiendo de la cantidad de rocío o spray inhalado.
Ingestión	Puede ocasionar irritación gastrointestinal. Los síntomas pueden incluir dolor, garganta irritada, náuseas y vómito si se ingieren grandes volúmenes.

- EFECTOS CRÓNICOS EN LA SALUD: No corresponde.
- ÓRGANOS QUE AFECTA: Piel.
- INFORMACIÓN GENERAL: Para toda clase de exposiciones: En caso de accidente, o si no se siente bien, busque atención médica de inmediato. Llévese este documento y una copia de la etiqueta a su consulta con el médico.
- RECOMENDACIONES PARA EL MÉDICO: Dé tratamiento de acuerdo con los síntomas.
- AFECCIONES MÉDICAS QUE PUEDEN AGRAVARSE CON UNA SOBREEXPOSICIÓN: No se ha informado ninguna.

SECCIÓN 5: MEDIDAS CONTRA INCENDIOS

5.1 MEDIO PARA APAGAR UN INCENDIO

- **MEDIO RECOMENDADO PARA APAGAR UN INCENDIO:** Spray de agua, chorro de agua, polvo seco, espuma, dióxido de carbono, sistema de halones o cualquier otro medio.
- **MEDIOS NO ADECUADOS PARA APAGAR UN INCENDIO:** Ninguno conocido.

5.2 RIESGOS ESPECIALES QUE PUEDEN SURGIR DEBIDO A LA SUSTANCIA O MEZCLA

- **CLASIFICACIÓN DE NFPA SOBRE INFAMABILIDAD:**

Calificación de NFPA



Clasificación de NFPA

No inflamable.

- **RIESGOS INUSUALES EN CASO DE INCENDIO:**

Productos de descomposición

Dióxido de carbono, monóxido de carbono, compuestos de nitrógeno, y sodio y vapores irritantes.

Susceptibilidad a explosiones en caso de impacto mecánico

No corresponde.

Susceptibilidad a explosiones en caso de descarga estática

No corresponde.

5.3 SUGERENCIAS PARA LOS BOMBEROS

- En cualquier situación, debe usar un equipo de protección completo y aparatos de respiración autónomos para apagar incendios. Mueva los contenedores del área del incendio si es posible hacerlo sin poner en riesgo al personal. En caso contrario, utilice spray de agua para mantener frescos los contenedores expuestos al fuego. Debido a que este producto es un agente de limpieza, el equipo que entre en contacto con esta solución se puede enjuagar bien con agua y luego puede volverse a usar.

SECCIÓN 6: MEDIDAS EN CASO DE DERRAME ACCIDENTAL

6.1 PRECAUCIONES PERSONALES, EQUIPO DE PROTECCIÓN Y PROCEDIMIENTOS DE EMERGENCIA

- **RESPUESTA ANTE DERRAMES ACCIDENTALES:** El personal que ha recibido capacitación básica para la manipulación de sustancias químicas puede manejar los derrames a pequeña escala. Es necesario utilizar guantes y lentes de seguridad al limpiar los derrames, para evitar el contacto prolongado y proteger de salpicaduras. Mientras limpia, tenga cuidado; los pisos y objetos contaminados pueden estar resbalosos.
- **RESPUESTA ANTE DERRAMES NO ACCIDENTALES:** En general, los derrames de este material no irán más allá de la pérdida de un envío de material. Por lo tanto, el personal puede seguir las instrucciones en caso de derrames accidentales. Según corresponda, responda a los derrames no accidentales de sustancias cuando haya un derrame de este producto (como la destrucción simultánea de varias paletas del producto) limpiando el área afectada y poniéndose en contacto con el personal de emergencias adecuado.
- **PROCEDIMIENTOS DE RESPUESTA ANTE CUALQUIER DERRAME:** Absorba el líquido derramado con polypads u otros materiales absorbentes adecuados. Enjuague bien el área. Debido a que este producto es un agente de limpieza, todos los objetos que entren en contacto con la solución pueden volver a usarse después de enjuagárselos.

6.2 PRECAUCIONES AMBIENTALES

- Evite las acciones de respuesta que puedan ocasionar el derrame de una cantidad significativa del producto (más de 4 galones) en el medioambiente. Evite la dispersión accidental del material derramado en la tierra, vías acuáticas y alcantarillados.

6.3 MÉTODOS Y MATERIALES PARA LA CONTENCIÓN Y LABORES DE LIMPIEZA

- **EQUIPO DE RESPUESTA EN CASO DE DERRAME:** Polypad u otro material absorbente.

6.4 REFERENCIAS A OTRAS SECCIONES

- **SECCIÓN 8:** Para los niveles de exposición y recomendaciones detalladas del equipo de protección personal.
- **SECCIÓN 13:** Para conocer las pautas en el manejo de desperdicios.

SECCIÓN 7: MANIPULACIÓN Y ALMACENAMIENTO

7.1 PRECAUCIONES PARA EL MANEJO SEGURO

Prácticas de higiene Manténgase fuera del alcance de los niños. Siga las buenas prácticas de higiene química. Evite la inhalación de rocíos y sprays. Evite el contacto con los ojos. Limpie el producto derramado de inmediato.

Prácticas de manejo Los empleados deben estar debidamente capacitados para utilizar este producto de la manera más segura según sea necesario. Mantenga los recipientes cerrados cuando no los use.

7.2 CONDICIONES PARA EL ALMACENAMIENTO SEGURO, INCLUYENDO CUALQUIER INCOMPATIBILIDAD

Prácticas de almacenamiento Asegúrese de que todos los envases estén etiquetados de manera correcta. Conserve los envases fuera de la luz solar directa, de las fuentes intensas de calor o cuando sea posible que se congelen. Almacene este producto alejado de sustancias químicas incompatibles. Revise todos los contenedores entrantes antes de guardar, para asegurarse de que estén debidamente etiquetados y no se encuentren dañados.

Incompatibilidades Consulte la sección 10 (estabilidad y reactividad).

SECCIÓN 8: CONTROLES DE EXPOSICIÓN/PROTECCIÓN PERSONAL

8.1 PARÁMETROS DE CONTROL

- **LÍMITES DE EXPOSICIÓN EN EL AIRE:**

COMPONENTE	ACGIH TLV	OSHA PEL	NIOSH REL	OTRO
Glicerina	NE	15 mg/m ³ (TWA; Polvo total) 5 mg/m ³ (TWA Fracción respirable)	NE	NE

- **LÍMITES DE EXPOSICIÓN BIOLÓGICA EN EL TRABAJO:** No establecido.

8.2 CONTROLES DE EXPOSICIÓN

Controles de ingeniería	Utilice en ambientes bien ventilados.
Protección respiratoria	No es necesario en circunstancias de uso normal.
Protección de las manos	Se recomiendan guantes de neopreno, PVC o butilo durante la respuesta para derrames únicamente. Asegúrese de que los guantes estén intactos antes de usarlos.
Protección de los ojos	Lentes de seguridad, durante la respuesta en caso de derrames únicamente.
Protección corporal	No corresponde.

8.3 SÍMBOLOS DE PROTECCIÓN PERSONAL

Protección de las manos
(Repuesta en caso de derrames)



Protección de los ojos
(Repuesta en caso de derrames)



SECCIÓN 9: PROPIEDADES FÍSICAS Y QUÍMICAS

9.1 INFORMACIÓN SOBRE LAS PROPIEDADES FÍSICAS Y QUÍMICAS BÁSICAS

Aspecto	Líquido transparente verdoso.
Olor	Cítrico, afrutado.
Umbral olfativo	No determinado.
pH:	4.7-6.2
Punto de fusión y punto de congelamiento	Aprox. 0 °C (32 °F).
Punto de ebullición inicial y rango de ebullición	100 °C (212 °F)
Punto de inflamación	>100 °C (212 °F)
Tasa de evaporación (Agua = 1)	No determinado.
Inflamabilidad	No corresponde.
Límites superiores e inferiores de explosividad	No corresponde.
Presión de vapor	No determinado.
Densidad del vapor	No determinado.

SECCIÓN 9: PROPIEDADES FÍSICAS Y QUÍMICAS (continuación)

Densidad relativa (Densidad)	Aprox. 1.0 (8.35 lb/galón); 1 g/cm ³ (gravedad específica).
Solubilidad	Totalmente soluble en agua.
Coeficiente de partición n-octanol/agua	No determinado.
Temperatura de autoinflamación	No corresponde.
Temperatura de descomposición	No determinado.
Viscosidad	10-20 mm ² /s (20 °C)

9.2 INFORMACIÓN ADICIONAL

- VOC (menos agua y exento de solventes): No corresponde.
- PESO % VOC: No corresponde.

SECCIÓN 10: ESTABILIDAD Y REACTIVIDAD

10.1 REACTIVIDAD

- No es reactivo en condiciones normales de uso o manipulación.

10.2 ESTABILIDAD QUÍMICA

- Es normalmente estable en condiciones estándar de temperatura y presiones.

10.3 POSIBILIDAD DE REACCIONES PELIGROSAS

- Este producto no es autoreactivo, ni reactivo al agua o al aire.
- Este producto no experimentará una polimerización peligrosa.

10.4 CONDICIONES QUE SE DEBEN EVITAR

- Evite el contacto con sustancias químicas incompatibles.

10.5 MATERIALES INCOMPATIBLES

- Agentes oxidantes fuertes, materiales catiónicos.

10.6 PRODUCTOS DE DESCOMPOSICIÓN PELIGROSA

- Los productos de descomposición térmica de este material incluyen óxidos de carbono (es decir, monóxido de carbono y dióxido de carbono) así como también compuestos de sodio y nitrógeno.

SECCIÓN 11: INFORMACIÓN TOXICOLÓGICA

11.1 INFORMACIÓN SOBRE LOS EFECTOS TOXICOLÓGICOS

• TOXICIDAD AGUDA:

- DATOS DE TOXICIDAD:** Los siguientes datos están disponibles para los componentes de este producto:

POLI (OXI-1.2-ETANEDIIL), ALFA, -SULFO-,OMEGA,-HYDROXI-,C10-16-ALKILÉTERES, SALES DE SODIO
LD₅₀ (Oral, rata) > 2000 mg/kg

COCAMIDOPROPIL BETAINA

LD₅₀ (Oral, rata) > 2000 mg/kg
LD₅₀ (dérmico, conejo) > 1000 mg/kg

- GRADO DE IRRITACIÓN:** Irritante para los ojos. Consulte la sección 4 (medidas de primeros auxilios) para obtener más información. Los datos específicos para los componentes son los siguientes:

COCAMIDOPROPIL BETAINA
Piel, conejo = 24 horas/Irritante
Ojos, conejo = 24 horas/Irritante leve para los ojos

SECCIÓN 11: INFORMACIÓN TOXICOLÓGICA (continuación)

- **SENSIBILIZACIÓN:** No se ha informado que este producto tenga efectos de sensibilización cutánea o respiratoria.
- **REVISIÓN DE SÍNTOMAS AGUDOS Y EFECTOS POR LA VÍA DE EXPOSICIÓN:** Consulte la sección 2 (información de riesgos) y sección 4 (medidas de primeros auxilios) para obtener más detalles.

Ojos	Irrita los ojos.
Piel	No se anticipan efectos adversos.
Inhalación	Puede ocasionar irritación leve en las vías respiratorias si se inhalan vapores.
Ingestión	Puede causar irritación del sistema gastrointestinal, en especial si se ingieren grandes cantidades.

- **TOXICIDAD CRÓNICA:**

- **CONDICIÓN CARCINÓGENA:** No corresponde.
- **INFORMACIÓN DE TOXICIDAD REPRODUCTIVA:** No se ha informado que los componentes de este producto ocasionen efectos reproductivos en condiciones normales de exposición.
- **EFFECTOS MUTAGÉNICOS:** No se ha informado que los componentes de este producto ocasionen efectos reproductivos en condiciones normales de exposición.
- **TOXICIDAD ESPECÍFICA EN ÓRGANOS AFECTADOS POR EXPOSICIÓN ÚNICA:** No corresponde.
- **TOXICIDAD ESPECÍFICA EN ÓRGANOS AFECTADOS POR EXPOSICIÓN REPETIDA:** No corresponde.
- **RIESGO DE ASPIRACIÓN:** No corresponde.

- **INFORMACIÓN ADICIONAL:**

- **PRODUCTOS TOXICOLÓGICOS SINÉRGICOS:** Ninguno conocido.
- **TOXICOLOGÍA ADICIONAL:** No corresponde.

SECCIÓN 12: INFORMACIÓN ECOLÓGICA

12.1 TOXICIDAD

- En base a los datos disponibles, no está previsto que este producto sea dañino o fatal para plantas o animales acuáticos o terrestres que se hayan contaminado. Los siguientes datos están disponibles para los componentes de este producto:

COCAMIDOPROPIL BETAINA

EC50 (Algas) = 2.4 mg/L/72 horas

LC50 [*Cyprinodon variegates*] = 1.1 mg/L/96 horas

LC50 [Pimephales promelas] = 1.11 mg/L/96 horas

NOEC (Algas) = 0.6 mg/L/72 horas; NOEC (Pez) = 100 días/ 0.135 mg/L

12.2 PERSISTENCIA Y DEGRADABILIDAD

- Si se vierten al terreno, se espera que los componentes de este producto se biodegraden, se disipen en la tierra a través de la oxidación, o bien se degraden químicamente o se descompongan a través de la radiación solar. Los siguientes datos están disponibles para los componentes de este producto:

- **COCAMIDOPROPIL BETAINA:** Aeróbico – Tiempo de exposición 28 días = 91.6%; Fácilmente biodegradable.

12.3 POTENCIAL BIOACUMULATIVO

- No está previsto que este producto se bioacumule de manera significativa.

12.4 MOVILIDAD EN EL TERRENO

- Se espera que este producto presente cierta movilidad en el terreno.

12.5 OTROS EFECTOS ADVERSOS

- No se ha informado ninguno.

SECCIÓN 13: NOTAS SOBRE LA ELIMINACIÓN

13.1 MÉTODOS PARA EL TRATAMIENTO DE RESIDUOS

- Elimine el producto de acuerdo con todas las reglamentaciones federales, estatales y locales.

13.2 NOTAS SOBRE LA ELIMINACIÓN

- **CÓDIGO RCRA DE EPA PARA RESIDUOS:** No corresponde.

SECCIÓN 14: INFORMACIÓN DE TRANSPORTE

14.1 DESCRIPCIÓN BÁSICA SOBRE MERCANCÍAS PELIGROSAS Y OTRA INFORMACIÓN DE TRANSPORTE

- **NORMAS DEL DEPARTAMENTO DEL TRANSPORTE PARA EL ENVÍO DE MATERIALES PELIGROSOS:**

Número de UN/NA	Nombre correcto de envío	Grupo de empaque	Clase de riesgo	Etiqueta	Número de la Guía de Respuestas en caso de Emergencias de Norteamérica	Estado del contaminante marino
No corresponde						

- **DESIGNACIÓN DE IATA:** Este producto no está considerado como material peligroso por parte de la International Air Transport Association.
- **DESIGNACIÓN DE IMO:** Este producto no está considerado como material peligroso por parte de la International Maritime Organization.

14.2 RIESGOS AMBIENTALES

- No se describe ninguno en relación con el transporte.

14.3 PRECAUCIONES ESPECIALES PARA LOS USUARIOS

- No corresponde.

14.4 TRANSPORTE A GRANEL

- No corresponde.

SECCIÓN 15: INFORMACIÓN DE REGLAMENTACIÓN

15.1 REGLAMENTACIONES ESPECÍFICAS PARA EL PRODUCTO SOBRE EL MEDIOAMBIENTE, SEGURIDAD Y SALUD

• OTRAS REGLAMENTACIONES IMPORTANTES DE LOS EE. UU.

- **CATEGORÍAS DE RIESGO SARA DE LOS EE. UU. (SECCIÓN 311/312, CFR 40, 370-21):** AGUDO: No; CRÓNICO: No; INCENDIO: No; REACTIVO: No; DERRAME REPENTINO: No
- **CANTIDAD PARA INFORMAR (RQ) DE LA CERCLA DE LOS EE. UU.:** No corresponde.
- **ESTADO DE INVENTARIO DE LA TSCA DE LOS EE. UU.:** Todos los ingredientes de este producto están enumerados en el Inventario de la TSCA.
- **ESTADO DE LA LEY DE CALIFORNIA PARA EL AGUA POTABLE (PROPIUESTA 65):** No corresponde.

• NORMAS INTERNACIONALES

- **ESTADO REGULATORIO CANADIENSE:** El **PRODUCTO COMERCIALIZADO** no está clasificado como peligroso de acuerdo con las normas Canadienses de Productos Controlados (SOR-88-66).
 - Esta SDS contiene toda la información exigida por el CPR.
- **ESTADO DE INVENTARIO DSL/NDSL DE CANADÁ:** Todos los ingredientes de este producto están enumerados en el Inventario de DSL/NDSL.
- **LISTAS DE SUSTANCIAS PRIORITARIAS DE LA LEY PARA LA PROTECCIÓN AMBIENTAL DE CANADÁ (CEPA):** Los ingredientes de este producto no se encuentran en la lista de sustancias prioritarias de la CEPA.
- **CLASIFICACIÓN DE RIESGO ACUÁTICO DE ALEMANIA:** 1 (riesgo reducido para el agua).

SECCIÓN 16: INFORMACIÓN ADICIONAL

16.1 INDICACIÓN DE CAMBIOS

- **FECHA DE REVISIÓN:** 17 de abril de 2015
- **ANULA:** 16 de febrero de 2105
- **CAMBIO INDICADO:** Actualización de la Norma de comunicación de riesgos de la OSHA (CFR 29, 1910.1200),

16.2 REFERENCIAS CLAVE A DOCUMENTOS Y FUENTES DE DATOS

- HOJAS DE DATOS DE SEGURIDAD PARA LOS INGREDIENTES DE LOS PRODUCTOS.
- SAX – Propiedades peligrosas de materiales industriales
- RTECS – Registro de los efectos de las sustancias químicas tóxicas
- TOXNET – <http://toxnet.nlm.nih.gov/>

16.3 SISTEMA DE CLASIFICACIÓN DE MATERIALES PELIGROSOS

Producto COMERCIALIZADO

Salud	0
Inflamabilidad	0
Riesgos físicos	0
Equipo de protección	B (Repuesta en caso de derrames)

Calificación del Equipo de Protección Personal de HMIS: Situaciones de uso laboral: B – Lentes de seguridad y guantes).

16.4 AVISO

WAXIE Sanitary Supply no garantiza, expresa ni asegura la precisión, suficiencia o integridad del material establecido en el presente documento. Es responsabilidad del usuario determinar la seguridad, toxicidad e idoneidad de su propio uso, manejo y eliminación de este producto. Debido a que el uso real por parte de otros está fuera de nuestro control, WAXIE Sanitary Supply no expresa ni implica ninguna garantía sobre los efectos de dicho uso, los resultados al haberlo obtenido o la seguridad y toxicidad de este producto, y WAXIE Sanitary Supply tampoco asume ninguna responsabilidad surgida del uso de este producto por parte de otros, al que se hace referencia en el presente documento. Los datos de esta SDS se relacionan únicamente con el material específico designado en el presente y no están relacionados con su uso en combinación con otros materiales o en otro proceso. WAXIE Sanitary Supply no recomienda mezclar este producto con otras sustancias químicas. Toda la información, recomendaciones y datos contenidos en el presente relativos a este producto se basan en la información disponible en el momento de la redacción, provenientes de fuentes técnicas reconocidas.

16.5 ABREVIATURAS Y ACRÓNIMOS

TODAS LAS SECCIONES: OSHA: Administración Federal de Seguridad y Salud Ocupacional de los EE.UU. WHMIS: Norma para el Manejo de Materiales Peligrosos en el Lugar de Trabajo de Canadá. GHS: Sistema de Clasificación Mundialmente Armonizado de Substancias Químicas. REACH: Reglamentos de la Unión Europea, Registro, Evaluación, Autorización y Restricción de sustancias químicas.

SECCIÓN 2: Número de CAS: Número de Registro de resúmenes químicos, el cual es utilizado por la Sociedad Americana de sustancias químicas para identificar particularmente a una sustancia química.

SECCIÓN 5: NFPA: Asociación Nacional para la Protección contra Incendios. **CLASIFICACIÓN DE NFPA SOBRE INFAMABILIDAD:** La NFPA utiliza el punto de inflamación (Fl.P.) y el punto de ebullición (BP) para clasificar los líquidos inflamables o combustibles. Clase IA: Fl.P. inferior a 73 °F y BP inferior a 100 °F. Clase IB: Fl.P. inferior a 73 °F y BP superior a los 100 °F. Clase IC: Fl.P. superior a 73 °F y BP superior a 100 °F. Clase II: Fl.P. superior a 100 °F e inferior a 140 °F. Clase IIIA: Fl.P. superior a 140 °F e inferior a 200 °F. Clase IIIB: Fl.P. en o superior a 200 °F. **CALIFICACIÓN DE MATERIALES PELIGROSOS DE NFPA:** Este es un sistema de calificaciones utilizado para resumir los riesgos físicos y de salud para los bomberos. 0 = Sin riesgo significativo. 1 = Riesgo leve. 2 = Riesgo moderado. 3 = Riesgo grave. 4 = Riesgo extremo.

SECCIÓN 8: NE: No establecido. ACGIH: Conferencia Americana de Higienistas Industriales del Gobierno; TWA: Promedio ponderado en el tiempo (durante un día de trabajo de 8 horas); STEL: Límite de Exposición a Corto Plazo (un promedio de 15 minutos, no más de 4 veces al día y cada exposición con diferencia de una hora como mínimo); Q: Límite máximo (la concentración no debe excederse en un ambiente laboral). PEL: Límite de exposición permisible. NIOSH: Instituto Nacional de la Seguridad y Salud Laborales; REL: Límite recomendado de exposición; IDLH: Concentraciones que representan un Peligro inmediato para la Vida y la Salud. Nota: En julio de 1992, un juzgado anuló las normas PEL establecidas por la OSHA en 1989, que implicaban mayor protección. Debido a que la OSHA puede hacer cumplir los niveles de mayor protección de acuerdo con la "cláusula de deber general", los niveles actuales y anulados se presentan en este documento. ppm: Partes por millón. mg/m³: Miligramos por metro cúbico. mppcf: Millones de partículas por pie cúbico. BEI: Límite de exposición biológica. EL: Límite de exposición (Reino Unido). República Federal de Alemania (DFG) Valores máximos de concentración en el lugar de trabajo (MAKs).

SECCIÓN 9: pH: Escala (del 0 al 14) utilizada para medir la acidez o alcalinidad de soluciones acuosas. Por ejemplo, un valor pH de 0 señala que se trata de una solución muy ácida, un pH de 7 señala que es una solución neutral, y un valor pH de 14 indica una solución muy alcalina (base). **PUNTO DE INFAMACIÓN:** La temperatura a la cual un líquido genera suficientes vapores inflamables como para

que ocurra la ignición. **TEMPERATURA DE AUTO INFAMACIÓN:** La temperatura a la cual ocurre una ignición espontánea.

SECCIÓN 9 (continuación): LÍMITE EXPLOSIVO INFERIOR (LEL): La concentración mínima de vapores inflamables en el aire que pueden provocar una ignición. **LÍMITE EXPLOSIVO SUPERIOR (UEL):** La concentración máxima de vapores inflamables en el aire que pueden provocar una ignición. Símbolo de aproximadamente. **VOC:** Compuesto orgánico volátil.

SECCIÓN 11: CONDICIÓN CARCINÓGENA: NTP: Programa Nacional de Toxicología. IARC: Agencia Internacional para la Investigación del Cáncer.

INFORMACIÓN DE TOXICIDAD REPRODUCTIVA: Mutágeno: Una sustancia que puede causar daños en los cromosomas de las células. Embriotoxina: Una sustancia que puede dañar el embrión en desarrollo en una mujer que sufre sobreexposición. Teratógeno: Una sustancia que puede dañar el feto en desarrollo en una mujer que sufre sobreexposición. Toxina de la reproducción: Una sustancia que puede afectar adversamente a los órganos reproductores femenino o masculino o sus funciones.

DATOS DE TOXICIDAD: LD_{xx} o LC_{xx}: La Dosis letal o Concentración letal de una sustancia que resultaría mortal en un porcentaje dado (xx) de pruebas en animales expuestos por la vía designada de administración. Este valor se utiliza para conocer la toxicidad de sustancias químicas en humanos. TD_{xx} o TC_{xx}: La Dosis tóxica o Concentración tóxica de una sustancia que ocasionaría un efecto adverso en un porcentaje dado (xx) de pruebas en animales expuestos por la vía designada de administración.

SECCIÓN 12: EC₅₀: Concentración de efecto (en el 50% del grupo de estudio); **BOD:** Demanda biológica de oxígeno.

SECCIÓN 13: RCRA: Ley para la Conservación y Recuperación de Recursos. Las normas promulgadas de conformidad con esta ley se encuentran en el CFR 40, secciones 260 ff, y definen los requisitos de la generación, transporte, tratamiento, almacenamiento y eliminación de residuos peligrosos. **Códigos de residuos RCRA de la EPA:** Se definen en el CFR 40, sección 261.

SECCIÓN 15: CERCLA: Ley Integral de Compensación, Responsabilidad y Respuesta Ambiental (también conocida como "Superfund") y SARA: (Ley de Modificación y Reautorización de la Superfund). Las normas promulgadas de acuerdo con esta ley se localizan en el CFR 40, 300 ff, y brindan los requisitos de "el derecho a saber de la comunidad". **TSCA:** Ley de Control de Sustancias Tóxicas: Las normas que rigen la fabricación y venta de sustancias químicas, ubicadas en el CFR 40, 700-766. **DSL/NDSL:** Listas canadienses de Sustancias Domésticas y no Domésticas.

SECCIÓN 16: SISTEMA DE CALIFICACIÓN PARA LA IDENTIFICACIÓN DE MATERIALES PELIGROSOS: Este es un sistema de calificación utilizado por el sector para resumir los riesgos físicos y a la salud de los usuarios de sustancias químicas, y fue desarrollado originalmente por la Asociación Nacional de Pinturas y Recubrimientos. 0 = Sin riesgo significativo. 1 = Riesgo leve. 2 = Riesgo moderado. 3 = Riesgo grave. 4 = Riesgo extremo.

SAFETY DATA SHEET



This Safety Data Sheet (SDS) complies with the requirements of the U.S. Federal Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200, as updated in 2012) and equivalent state Standards. It has also been developed in accordance with the United Nations Globally Harmonized System of Classification of Chemicals (GHS) and the Canadian Workplace Hazardous Materials Information System (WHMIS). Refer to Section 16 of this document for the definition of terms and abbreviations.

SECTION 1: IDENTIFICATION

1.1 PRODUCT IDENTIFIER

- ITEM NUMBER(S): 410036, 410038, 410056, 410050, 414100
- PRODUCT NAME: **143 WAXIE-Green Cleaner/Degreaser**
 - 1 GL: 410036
 - 5 GL: 411038
 - 3L: 410056 (Solution Station 143)
 - 1 QT: 410050 (Ready to Use)
 - 55 GL: 414100

1.2 RELEVANT IDENTIFIED USES OF THE MIXTURE

- RECOMMENDED USE: Cleaning and Degreasing Compounds
- IDENTIFIED USERS: For sale to, use and storage by service persons only.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

- MANUFACTURER/
SUPPLIER: **Waxie's Enterprises, LLC, an Envoy Solutions Company**
9353 Waxie Way; San Diego, CA 92123-1036
- ADDRESS
1-800-995-4466
- BUSINESS PHONE:
1-800-255-3924 (CHEMTEL; 24 hours)
- EMERGENCY PHONE:

1.4 OTHER PERTINENT INFORMATION

- The relevant hazard and safety data are specified for both the Product as SOLD and Product at USE DILUTION, where appropriate.
- Product certified for reduced environmental impact. View specific attributes evaluated: ul.com/el (UL 2759).

SECTION 2: HAZARD IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

OSHA/HCS Status

Product as SOLD

Classification of the Substance or Mixture

Acute Toxicity (Oral, Category 4); Acute Toxicity (Inhalation, Category 4); Acute Toxicity (Dermal, Category 4); Serious eye damage/Irritation (Category 2A); Skin irritation (Category 2)

Product at USE DILUTION

Not rated as a hazardous material under OSHA hazard classification definitions (29 CFR 1910, 200, Appendices A and B). The following label elements have been prepared based on prudent practice for use, accident response and storage.

2.2 LABEL ELEMENTS:

ELEMENT

Product as SOLD

Hazard Pictograms



Product at USE DILUTION

Not applicable.

Signal Word

WARNING.

Hazard Statements

H302+312+332: Harmful if swallowed, in contact with skin or if inhaled. H315: Causes skin irritation. H319: Causes serious eye irritation.

Not applicable.

Not applicable.

SECTION 2: HAZARD IDENTIFICATION (Continued)

2.2 LABEL ELEMENTS (Continued)

ELEMENT	Product as SOLD	Product at USE DILUTION
Precautionary Statements Prevention	P102. Keep out of reach of children. P103: Read label before use. P261: Avoid breathing mist, vapors, or spray. P264: Wash exposed skin thoroughly after handling. P270: Do not eat, drink or smoke when using this product. P271: Use only outdoors or in a well-ventilated environment. P280: Wear protective gloves, protective clothing, and eye protection/face protection. P301+330: IF SWALLOWED: Rinse mouth. P304+340: INHALED: Remove person to fresh air and keep comfortable for breathing. P312: Call a POISON CENTER/doctor if you feel unwell. P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. P337+313: If eye irritation persists: Get medical advice/attention. P302+352: IF ON SKIN: Wash with plenty of water. P332+313: If skin irritation occurs, get medical advice/attention. P362+364: Take off contaminated clothing and wash it before reuse.	P103: Read label before use. P264: Rinse exposed skin after use.
Response		P313: In case of accidental exposure, seek medical advice if irritation persists.
Storage	P410+403: Store in a cool dry place at room temperature away from direct sunlight. Triple rinse container and offer for recycling.	(No P Code Specified): Store in a cool dry place at room temperature away from direct sunlight.
Disposal	P501: Dispose of contents and container according to the local, city, state and federal regulations	(No P Code Specified): Triple rinse container and offer for recycling. Dispose of contents and container according to the local, city, state and federal regulations.

2.3 OTHER PERTINENT HAZARDS NOT OTHERWISE CLASSIFIED

- Not applicable.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1/3.2 SUBSTANCES/MIXTURES

CHEMICAL	CAS NUMBER	GHS HAZARD CLASSIFICATION FOR CHEMICAL	% (w/w)
Alcohols, C9-11, Ethoxylated	68439-46-3	Classification for the pure chemical: Acute Toxicity (Oral, Category 4); Skin Corrosion/Irritation (Category 2); Eye Damage/Irritation (Category 2); Aquatic Toxicity (Chronic, Category 4)	Proprietary ¹
Ethanol, 2-Amino	141-43-5	Flammable liquids (Category 4); Acute toxicity, Oral (Category 4); Acute toxicity, Inhalation (Category 4); Acute toxicity, Dermal (Category 4); Skin corrosion (Category 1B); Serious eye damage (Category 1); Acute aquatic toxicity (Category 3) Chronic aquatic toxicity (Category 3)	Proprietary
Sodium citrate, dihydrate	6132-04-3	Not classified.	Proprietary
The remaining components of this product are not classified as hazardous in their existing concentrations.			Balance

¹ The exact percentage of composition has been withheld as a trade secret. All relevant physical and health hazards have been declared, in accordance with regulatory requirements.

SECTION 4: FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

AREA EXPOSED	<u>Product as SOLD</u>	<u>Product at USE DILUTION</u>
Eye Contact	Flush with copious amounts of water for 15 minutes. "Roll" eyes during flush. Check for and remove contact lenses. Seek medical attention if irritation persists.	Flush with copious amounts of water for 15 minutes. "Roll" eyes during flush. Check for and remove contact lenses. Seek medical attention if irritation persists.
Skin Contact	Flush area with warm, running water for several minutes. Seek medical attention if irritation persists.	Flush area with warm, running water for several minutes.
Inhalation	Obtain fresh air.	Obtain fresh air.
Ingestion	If conscious only: Rinse mouth with water. Do not induce vomiting. Contact a Poison Control Center or physician for instructions.	If conscious only: Rinse mouth with water. Do not induce vomiting. Contact a Poison Control Center or physician for instructions.

4.2 MOST IMPORTANT ACUTE AND CHRONIC EXPOSURE SYMPTOMS

- **ACUTE HEALTH EFFECTS:**

AREA EXPOSED	<u>Product as SOLD</u>	<u>Product at USE DILUTION</u>
Eye Contact	Causes serious eye irritation, depending on the duration of skin contact.	May cause mild eye irritation, especially after prolonged exposure.
Skin Contact	Causes serious skin irritation.	No adverse effects anticipated.
Inhalation	Causes respiratory tract irritation; symptoms may include coughing and sneezing. Can be damaging to exposed mucous membranes.	No adverse effects anticipated.
Ingestion	Causes gastrointestinal system irritation; symptoms may include pain, sore throat, nausea and vomiting. be damaging to exposed mucous membranes.	No adverse effects anticipated.

- **CHRONIC HEALTH EFFECTS:**

<u>Product as SOLD</u>	<u>Product at USE DILUTION</u>
None reported.	None reported.

- **TARGET ORGANS:**

<u>Product as SOLD</u>	<u>Product at USE DILUTION</u>
Skin, eyes.	None reported.

4.3 INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

The following information is for both **Product AS SOLD** and Product at **USE DILUTION**.

- **GENERAL INFORMATION: For all exposures:** In case of accident, or if you feel unwell, seek medical advice immediately. Take this document and a copy of the label to the healthcare professional.
- **RECOMMENDATIONS TO PHYSICIANS:** Treat symptomatically.
- **MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:** None reported.

SECTION 5: FIREFIGHTING MEASURES

Unless stated, information in this section is for both **Product as SOLD** and **Product at USE DILUTION**.

5.1 EXTINGUISHING MEDIA

- **RECOMMENDED FIRE EXTINGUISHING MEDIA:** Water Spray, Water Jet, Dry Powder, Foam, Carbon Dioxide, or any other.
- **UNSUITABLE FIRE EXTINGUISHING MEDIA:** None known.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

- **NFPA FLAMMABILITY CLASSIFICATION:**

Classification

Product as SOLD

NFPA Rating



NFPA Classification

Not flammable.

Product at USE DILUTION



Not flammable.

- **UNUSUAL HAZARDS IN FIRE SITUATIONS:**

Decomposition Products

Carbon dioxide, carbon monoxide, ammonia, nitrogen oxides, and irritating vapors.

Explosion Sensitivity to Mechanical Impact

Not applicable.

Explosion Sensitivity to Static Discharge

Not applicable.

5.3 ADVICE FOR FIREFIGHTERS

- Self-Contained Breathing Apparatus and full protective equipment for fire response should be worn in any situation. Move containers from fire area if it can be done without risk to personnel. Otherwise, use water spray to keep fire-exposed containers cool. Because this product is a cleaning agent, any equipment that comes in contact with this solution can be rinsed thoroughly with water and then returned to service.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Unless stated, information in this section is for both **Product as SOLD** and **Product at USE DILUTION**.

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES

- **RESPONSE TO INCIDENTAL RELEASES:** Personnel who have received basic chemical safety training can generally handle small-scale releases. Gloves and safety glasses must be worn when cleaning-up spills. Use caution during clean-up; contaminated floors and items may be slippery.
- **RESPONSE TO NON-INCIDENTAL RELEASES:** Generally, releases of this product will be no larger than the loss of one shipment of material. Subsequently, personnel can follow the instructions for incidental releases. As needed, respond to non-incidental chemical releases of this product (such as the simultaneous destruction of several pallets of this product) by clearing the impacted area and contacting appropriate emergency personnel. In the unlikely event of a multi-container release of the **PRODUCT AS SOLD**, and with no other hazardous condition in the area, the use of an air-purifying respirator with particulate filter, face-shield, safety glasses, and double gloves (e.g., nitrile over latex gloves), and body protection is recommended if splashes/sprays/mists can be generated during clean-up.
- **RESPONSE PROCEDURES FOR ANY RELEASE:** Absorb spilled liquid with poly pads or other suitable absorbent materials. Rinse area thoroughly. Because this product is a cleaning agent, all items that come in contact with the solution can be returned to service after rinsing.

6.2 ENVIRONMENTAL PRECAUTIONS

- Avoid response actions that can cause a release of a significant amount of product (more than 4 gallons) into the environment. Avoid accidental dispersal of spilled material into soil, waterways and sewers.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

- **SPILL RESPONSE EQUIPMENT:** Poly pad or other absorbent material.

6.4 REFERENCES TO OTHER SECTIONS

- **SECTION 8:** For exposure levels and detailed personal protective equipment recommendations.
- **SECTION 13:** For waste handling guidelines.

SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Hygiene Practices

Product as SOLD

Keep out of reach of children. Follow good chemical hygiene practices. Do not smoke, drink, eat, or apply cosmetics in the chemical use area. Avoid inhalation of mists and sprays. Use in well-ventilated area. Avoid contact with skin or eyes. Remove contaminated clothing promptly. Clean up spilled product immediately.

Handling Practices

Employees must be appropriately trained to use this product safely as needed. Keep containers closed when not in use.

Product at USE DILUTION

Keep out of reach of children. Follow good chemical hygiene practices. Do not smoke, drink, eat, or apply cosmetics in the chemical use area. Avoid inhalation of mists and sprays. Use in well-ventilated area. Avoid contact with skin or eyes. Remove contaminated clothing promptly. Clean up spilled product immediately. Employees must be appropriately trained to use this product safely as needed. Keep containers closed when not in use.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Storage Practices

Product as SOLD

Ensure all containers are correctly labeled. Store containers away from direct sunlight, sources of intense heat, or where freezing is possible. Store this product away from incompatible chemicals. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged. Empty containers may contain residual liquid; therefore, empty containers should be handled with care.

Incompatibilities

See Section 10 (Stability and Reactivity).

Product at USE DILUTION

Ensure all containers are correctly labeled. Store containers away from direct sunlight, sources of intense heat, or where freezing is possible. Store this product away from incompatible chemicals.

See Section 10 (Stability and Reactivity).

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

- AIRBORNE EXPOSURE LIMITS:

COMPONENT	ACGIH TLV	OSHA PEL	NIOSH REL	OTHER
Ethanol, 2-Amino	TWA = 3 ppm; STEL = 6 ppm	TWA = 3 ppm	TWA = 3 ppm; STEL = 6 ppm	CA PEL: TWA = 3 ppm; STEL = 6 ppm IDLH = 30 ppm

- BIOLOGICAL OCCUPATIONAL EXPOSURE LIMITS: Not established.

8.2 EXPOSURE CONTROLS

- PRODUCT AS SOLD

Engineering Controls

Use in well-ventilated environment.

Respiratory Protection

None needed in normal circumstances of use.

Hand Protection

Neoprene, PVC, or butyl gloves are recommended if there is a potential for skin contact. Ensure gloves are intact prior to use.

Eye Protection

Safety glasses, if splashes/sprays can occur when using.

Body Protection

None needed in normal circumstances of use.

- IN USE DILUTION

Personal Precautions

Use in well-ventilated environment. No personal protection is typically required for most circumstances of use. If there is a possibility for extended periods of use of this product, or larger than normal volumes, refer to Recommendations for Use information above.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (Continued)

8.3 PERSONAL PROTECTION SYMBOLS

Hand Protection
(If skin contact is anticipated)
Eye Protection
(If splashes or sprays can occur)

Product as SOLD



Product at USE DILUTION

No gloves required.
No eye protection required.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

	<u>Product as SOLD</u>	<u>Product at USE DILUTION</u>
Appearance	Dark purple liquid.	Light purple.
Odor	Mild, bland.	Mild, bland.
Odor Threshold	Not determined.	Not determined.
pH	10-11	8-10
Melting Point/Freezing Point	Not determined.	Approx. 0°C (32 °F).
Initial Boiling Point/Boiling Range	99°C (210 °F).	Approximately 100°C (212°F).
Flash Point	> 99°C (210 °F) (Pensky-Marten)	Not applicable.
Evaporation Rate (Water = 1)	Approx. 1.0.	Approx. 1.0.
Flammability	Not applicable.	Not applicable.
Upper/Lower Explosive Limits	Not applicable.	Not applicable.
Vapor Pressure	Not determined.	Not determined.
Vapor Density	Not determined.	Not determined.
Relative Density (Density)	1.03 (8.34 lb./gal).	Approx. 1.0.
Solubility	Completely soluble in water.	Completely soluble in water.
Partition Coefficient/n-octanol/water	Not determined.	Not determined.
Autoignition Temperature	Not applicable.	Not applicable.
Decomposition Temperature	Not determined.	Not determined.
Viscosity	Not determined.	Not determined.

9.2 OTHER INFORMATION

- VOC (less water & exempt): 0 G/L.
- WEIGHT% VOC: Not applicable.

SECTION 10: STABILITY AND REACTIVITY

Unless stated, information in this section is for both **Product as SOLD** and **Product at USE DILUTION**.

10.1 REACTIVITY

- Not reactive under typical conditions of use or handling.

10.2 CHEMICAL STABILITY

- Normally stable under standard temperatures and pressures.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

- This product is not self-reactive, water-reactive, or air-reactive. It will not undergo hazardous polymerization.

10.4 CONDITIONS TO AVOID

- Avoid contact with incompatible chemicals.

10.5 INCOMPATIBLE MATERIALS

- Strong oxidizing agents, oxidizers, ammonia, bleach, strong acids and strong alkali materials.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

- Products of thermal decomposition include carbon dioxide, carbon monoxide, ammonia, and nitrogen oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

Unless stated, information in this section is for both **Product as SOLD** and **Product at USE DILUTION**.

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

- **ACUTE TOXICITY:** Product – Estimated LD₅₀ (Oral, Rat) > 8000 mg/kg
 - **TOXICOLOGY DATA:** The following data are available for the hazardous components in this product listed in Section 3 (Composition/Information on Ingredients).

ETHANOL, 2-AMINO LD ₅₀ (Oral, Rat) = 1,720 mg/kg LD ₅₀ (Skin, Rabbit) = 1,050 mg/kg	ALCOHOLS, C9-11, ETHOXYLATED LD ₅₀ (Oral, Rat) = 1000 mg/kg
--	--
 - **DEGREE OF IRRITATION:** Eye and skin irritant. See Section 4 (First Aid Measures) for more details. The following irritation data are available for components of this product:

ALCOHOLS, C9-11, ETHOXYLATED Skin corrosion/irritation (Rabbit) = Skin irritation/ 24 hours Eye damage/irritation (Rabbit) = Severe eye irritation/ 24 hours	
---	--
 - **SENSITIZATION:** The components of this product are not reported to have skin or respiratory sensitization effects.
 - **REVIEW OF ACUTE SYMPTOMS AND EFFECTS BY ROUTE OF EXPOSURE:** See Section 2 (Hazards Information) and Section 4 (First-Aid Measures) for additional details.

	Product as SOLD	Product at USE DILUTION
Eyes	Causes serious eye irritation, depending on the duration of skin contact.	May cause mild eye irritation, especially after prolonged exposure.
Skin	Causes serious skin irritation.	No adverse effects anticipated.
Inhalation	Causes respiratory tract irritation; symptoms may include coughing and sneezing. Can be damaging to exposed mucous membranes.	No adverse effects anticipated.
Ingestion	Causes gastrointestinal system irritation; symptoms may include pain, sore throat, nausea and vomiting. be damaging to exposed mucous membranes.	No adverse effects anticipated.

- **CHRONIC TOXICITY:**
 - **CARCINOGENICITY STATUS:** The components of this product are not listed as carcinogens by IARC, NTP or OSHA.
 - **REPRODUCTIVE TOXICITY INFORMATION:** The components of this product are not reported to cause reproductive effects under typical circumstances of exposure.
 - **MUTAGENIC EFFECTS:** The components of this product are not reported to cause mutagenic effects under typical circumstances of exposure.
 - **SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE:** Not applicable.
 - **SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE:** Not applicable.
 - **ASPIRATION HAZARD:** Not applicable.
- **OTHER INFORMATION:**
 - **TOXICOLOGICALLY SYNERGISTIC PRODUCTS:** None known.
 - **ADDITIONAL TOXICOLOGY:** Not applicable.

SECTION 12: ECOLOGICAL INFORMATION

Unless stated, information in this section is for both **Product as SOLD** and **Product at USE DILUTION**.

12.1 TOXICITY

- Based on available data, this product is not anticipated to be harmful or fatal to contaminated terrestrial or aquatic plants or animals.
- The following aquatic toxicity data are available for components of this product:

ALCOHOLS, C9-11, ETHOXYLATED

LC50 - Cyprinus carpio (Carp) - 1.4 mg/l - 96 hours
LC50 - Daphnia magna (Water flea) - 6.46 mg/l - 48 hours

ETHANOL, 2-AMINO

LC50 (Pimephales promelas): 227 mg/L - 96 hours
EC50 (Daphnia magna): 65 mg/L - 48 hours
EC50 (Desmodesmus subspicatus): 15 mg/l - 72 hours

SECTION 12: ECOLOGICAL INFORMATION (Continued)

12.2 PERSISTENCE AND DEGRADABILITY

- When released into the soil, the components of this product are expected to biodegrade, dissipate in soils via oxidation, or otherwise chemically degrade or photo-decompose via solar radiation.

12.3 BIOACCUMULATIVE POTENTIAL

- This product is not anticipated to bioaccumulate significantly.

12.4 MOBILITY IN SOIL

- It is to be expected this product will have some mobility in soil.

12.5 OTHER ADVERSE EFFECTS

- None reported.

SECTION 13: DISPOSAL CONSIDERATION

13.1 WASTE TREATMENT METHODS

Product as SOLD

Dispose of in accordance with local, State and Federal regulations.

Product at USE DILUTION

Dispose of unused product in accordance with local, State and Federal regulations.

13.2 DISPOSAL CONSIDERATIONS

Product as SOLD

Not applicable.

Product at USE DILUTION

Not applicable.

SECTION 14: TRANSPORT INFORMATION

Information in this section is for **Product as SOLD**.

14.1 DANGEROUS GOODS BASIC DESCRIPTION AND OTHER TRANSPORT INFORMATION

• DEPARTMENT OF TRANSPORTATION HAZARDOUS MATERIALS SHIPPING REGULATIONS:

UN/NA Number	Proper Shipping Name	Packing Group	Hazard Class	Label	North American Emergency Response Guide #	Marine Pollutant Status
NOT APPLICABLE						

- IATA DESIGNATION:** This product is not regulated as dangerous goods by the International Air Transport Association.
- IMO DESIGNATION:** This product is not regulated as dangerous goods by the International Maritime Organization.

14.2 ENVIRONMENTAL HAZARDS

- None described, as related to transportation.

14.3 SPECIAL PRECAUTIONS FOR USERS

- Not applicable.

14.4 TRANSPORT IN BULK

- Not applicable.

SECTION 15: REGULATORY INFORMATION

Unless stated, information in this section is for both **Product as SOLD** and **Product at USE DILUTION**.

15.1 SAFETY, HEALTH, AND ENVIRONMENTAL REGULATIONS SPECIFIC FOR THE PRODUCT

- OTHER IMPORTANT U.S. REGULATIONS

- **U.S. SARA HAZARD CATEGORIES (SECTION 311/312, 40 CFR 370-21)**: Acute Toxicity; Serious Eye Damage/Irritation; Skin Corrosion/Irritation.
- **U.S. CERCLA REPORTABLE QUANTITY (RQ)**: Not applicable.
- **U.S. TSCA INVENTORY STATUS**: All components of this product are listed on the TSCA Inventory.
- **U.S. SARA 313**: Not applicable.
- **CALIFORNIA SAFE DRINKING WATER ACT (PROPOSITION 65) STATUS**: Not applicable.

- INTERNATIONAL REGULATIONS

- **CANADIAN REGULATORY STATUS: CANADIAN REGULATORY STATUS**: The product is classified as hazardous under Hazardous Products Regulations (SOR-2015-17).
 - WHMIS 2015: See section 2.
 - This SDS contains all the information required by the HPR.
- **CANADIAN DSL/NDSL INVENTORY STATUS**: The listed components of this product are on the DSL/NDSL Inventory.
- **CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITY SUBSTANCES LISTS**: The components of this product are not on the CEPA Priority Substances Lists.

SECTION 16: OTHER INFORMATION

16.1 INDICATION OF CHANGE

- **DATE OF REVISION**: November 11, 2021
- **SUPERCEDES**: September 4, 2015
- **CHANGE INDICATED**: Update of manufacturer information, addition of H/P Codes; regulatory review and update; establishing distinction between professional and consumer use personal protective equipment.

16.2 KEY LITERATURE REFERENCES AND SOURCES FOR DATA

- SAFETY DATA SHEETS FOR COMPONENT PRODUCTS.
- Federal OSHA Hazard Communication Standard: 29 CFR 1910.1200.

16.3 HAZARDOUS MATERIALS CLASSIFICATION SYSTEM

<u>Product as SOLD</u>		<u>Product at USE DILUTION</u>			
Health	1	HMIS Personal Protective Equipment	Health	0	HMIS Personal Protective Equipment Rating:
Flammability	0	Rating: Occupational	Flammability	0	Occupational Use
Physical Hazard	0	Use situations: B - Safety glasses and gloves, if	Physical Hazard	0	situations: No protective equipment is needed under normal circumstances of use and handling.
Protective Equipment	B	splashes/sprays can be generated.	Protective Equipment	Not applicable	

SECTION 16: OTHER INFORMATION (Continued)

16.4 DISCLAIMER

Waxie's Enterprises, LLC, an Envoy Solutions Company (WAXIE), makes no warranty, representation or guarantee as to the accuracy, sufficiency or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity and suitability of their own use, handling and disposal of this product. Since actual use by others is beyond our control, no warranty, expressed or implied, is made by WAXIE as to the effects of such use, the results to be obtained or the safety and toxicity of this product, nor does WAXIE assume any liability arising out of the use by others of this product referred to herein. The data in this SDS relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. WAXIE does not recommend blending this product with any other chemicals. All information, recommendations and data contained herein concerning this product are based upon information available at the time of writing from recognized technical sources.

16.5: ABBREVIATIONS AND ACRONYMS

ALL SECTIONS: OSHA: U.S. Federal Occupational Safety and Health Administration. WHMIS: Canadian Workplace Hazardous Materials Standard. GHS: Globally Harmonized System of Classification of Chemical Substances.

SECTION 3: CAS Number: Chemical Abstract Service Number, which is used by the American Chemical Society to uniquely identify a chemical.

SECTION 5: NFPA: National Fire Protection Association. **NFPA FLAMMABILITY CLASSIFICATION:** The NFPA uses the flash point (Fl.P.) and boiling point (BP) to classify flammable or combustible liquids. Class IA: Fl.P. below 73°F and BP below 100°F. Class IB: Fl.P. below 73°F and BP at or above 100°F. Class IC: Fl.P. at or above 73°F and BP at or above 100°F. Class II: Fl.P. at or above 100°F and below 140°F. Class IIIA: Fl.P. at or above 140°F and below 200°F. Class IIIB: Fl.P. at or above 200°F. **NFPA HAZARDOUS MATERIALS RATING:** This is a rating system used to summarize physical and health hazards to firefighters. 0 = No Significant Hazard. 1 = Slight Hazard. 2 = Moderate Hazard. 3 = Severe Hazard. 4 = Extreme Hazard.

SECTION 8: NE: Not established. **ACGIH:** American Conference of Government Industrial Hygienists; **TWA:** Time-Weighted Average (over an 8-hour work day); **STEL:** Short-Term Exposure Limit (15-minute average, no more than 4-times daily and each exposure separated by one-hour minimally); **C:** Ceiling Limit (concentration not to be exceeded in a work environment). **PEL:** Permissible Exposure Limit. **NIOSH:** National Institute of Occupational Safety and Health; **REL:** Recommended Exposure Limit. **ppm:** Parts per Million. **mg/m³:** Milligrams per cubic meter. **mppcf:** Millions of Particles per Cubic Foot. **BEI:** Biological Exposure Limit. **CA:** California - TABLE AC-1 Permissible Exposure Limits for Airborne Contaminants

SECTION 9: pH: Scale (0 to 14) used to rate the acidity or alkalinity of aqueous solutions. For example, a pH value of 0 indicates a strongly acidic solution, pH of 7 indicates a neutral solution, and a pH value of 14 indicates an extremely basic solution. **FLASH POINT:** Temperature at which a liquid generates enough flammable vapors so that ignition may occur. **AUTOIGNITION TEMPERATURE:** Temperature at which spontaneous ignition occurs. **LOWER EXPLOSIVE LIMIT (LEL):** The minimal concentration of flammable vapors in air which will sustain ignition. **UPPER EXPLOSIVE LIMIT (UEL):** The maximum concentration of flammable vapors in air which will sustain ignition. ≈: Approximately symbol. **VOC:** Volatile Organic Compound.

SECTION 11: CARCINOGENICITY STATUS: NTP: National Toxicology Program. IARC: International Agency for Research on Cancer. **REPRODUCTIVE TOXICITY INFORMATION:** Mutagen: Substance capable of causing chromosomal damage to cells. Embryotoxin: Substance capable of damaging the developing embryo in an overexposed female. Teratogen: Substance capable of damaging the developing fetus in an overexposed female. Reproductive toxin: Substance capable of adversely affecting male or female reproductive organs or functions. **TOXICOLOGY DATA:** LD_{xx} or LC_{xx}: The Lethal Dose or Lethal Concentration of a substance which will be fatal to a given percentage (xx) of exposed test animals by the designate route of administration. This value is used to assess the toxicity of chemical substances to humans. TD_{xx} or TC_{xx}: The Toxic Dose or Toxic Concentration of a substance which will cause an adverse effect to a given percentage (xx) of exposed test animals by the designate route of administration.

SECTION 12: EC50: Effect Concentration (on 50% of study group); **BOD:** Biological Oxygen Demand. **COD:** Chemical Oxygen Demand. **ThOD:** Theoretical Oxygen Demand. **TLM:** Median Tolerance Limit.

SECTION 13: RCRA: Resource Conservation and Recovery Act. The regulations promulgated under this Act are found in 40 CFR, Sections 260 ff, and define the requirements of hazardous waste generation, transport, treatment, storage, and disposal. **EPA RCRA Waste Codes:** Defined in 40 CFR Section 261.

SECTION 15: CERCLA: Comprehensive Environmental Response Compensation and Liability Act (a.k.a. "Superfund") and **SARA:** (Superfund Amendment and Reauthorization Act). The regulations promulgated under this Act are located under 40 CFR 300 ff. and provide "community right-to-know" requirements. **TSCA:** Toxic Substances Control Act: Rules regulating the manufacture and sale of chemicals found in 40 CFR 700-766. **DSL/NDSL:** Canadian Domestic Substances and Non-Domestic Substances Lists.

SECTION 16: HAZARDOUS MATERIALS IDENTIFICATION SYSTEM RATING: This is a rating system used by industry to summarize physical and health hazards to chemical users and was originally developed by the National Paint and Coating Association. 0 = No Significant Hazard. 1 = Slight Hazard. 2 = Moderate Hazard. 3 = Severe Hazard. 4 = Extreme Hazard.

HOJA DE DATOS DE SEGURIDAD



Esta Hoja de datos de seguridad (SDS) cumple con los requisitos de la Norma federal de comunicación de riesgos de la Administración de Seguridad y Salud Ocupacional de los EE. UU. (CFR 29, 1910.1200, conforme a la actualización de 2012) y las normas estatales equivalentes. También ha sido desarrollada de acuerdo con el Sistema Mundialmente Armonizado de Clasificación de Productos Químicos de las Naciones Unidas (GHS) y el Sistema de Información de Materiales Peligrosos en el Lugar de Trabajo, de Canadá (WHMIS). Consulte la sección 16 de este documento para conocer la definición de los términos y abreviaturas.

SECCIÓN 1: IDENTIFICACIÓN

1.1 IDENTIFICADOR DEL PRODUCTO

- NÚMERO(S) DE ARTÍCULO: 410036, 410038, 410056, 410050, 414100
- NOMBRE DEL PRODUCTO: 143 Limpiador y desengrasante WAXIE-Green
 - 1 GL: 410036
 - 5 GL: 411038
 - 3L: 410056 - (Estación de solución 143)
 - 1 QT: 410050 (Listo para usar)
 - 55 GL: 414100

1.2 USOS RELEVANTES E IDENTIFICADOS DE LA MEZCLA

- USO RECOMENDADO: Compuestos de limpiador y desengrasante.
- USUARIOS IDENTIFICADOS: Para la venta, uso y almacenamiento solo por parte del personal de servicio.

1.3 DETALLES DEL PROVEEDOR DE LA HOJA DE DATOS DE SEGURIDAD

- FABRICANTE/PROVEEDOR: Waxie's Enterprises, LLC., una empresa de Envoy Solutions
- DIRECCIÓN: 9353 Waxie Way; San Diego, CA 92123-1036
- TELÉFONO DE OFICINA: 1-800-995-4466
- TELÉFONO DE EMERGENCIAS: 1-800-255-3924 (CHEMTEL; las 24 horas)

1.4 OTRA INFORMACIÓN PERTINENTE

- Los datos relevantes sobre el riesgo y la seguridad se especifican para el **Producto COMERCIALIZADO** y el **Producto DILUIDO al USARLO**, según corresponda.
- Este producto está certificado por producir un impacto ambiental reducido. Ver la evaluación de los atributos específicos: ul.com/el (UL 2759).

SECCIÓN 2: IDENTIFICACIÓN DE RIESGOS

2.1 CLASIFICACIÓN DE LA SUSTANCIA O MEZCLA

Estado según la OSHA/HCS

Clasificación de la sustancia o mezcla

Producto COMERCIALIZADO

○ Toxicidad aguda (oral, categoría 4); Toxicidad aguda (inhalación, categoría 4); Toxicidad aguda (cutánea, categoría 4); Daño/Irritación grave en los ojos (categoría 2A); Irritación en la piel (categoría 2)

Producto DILUIDO al USARLO

No clasificado como material peligroso según las definiciones de clasificación de peligros de OSHA (29 CFR 1910, 200, Apéndices A y B). Los siguientes elementos de la etiqueta se han preparado sobre la base de prácticas prudentes de uso, respuesta a accidentes y almacenamiento.

2.2 ELEMENTOS DE LA ETIQUETA:

ELEMENTO

Pictogramas de riesgo

Producto COMERCIALIZADO



ATENCIÓN

Palabra de advertencia Declaraciones del riesgo

H302+H312+331: Nocivo en caso de ingestión, en contacto con la piel o si se inhala. H315: Provoca irritación cutánea. H319: Provoca irritación ocular grave.

Producto DILUIDO al USARLO

No corresponde

No corresponde

No corresponde

SECCIÓN 2: IDENTIFICACIÓN DE RIESGOS (continuación)

2.2 ELEMENTOS DE LA ETIQUETA (continuación)

ELEMENTO

Declaraciones de precaución

Prevención

Producto COMERCIALIZADO

Respuesta

P102: Mantener fuera del alcance de los niños.
 P103: Leer la etiqueta antes del uso. P261: Evitar respirar nieblas, vapores, o aerosoles. P264: Lavarse la piel expuesta cuidadosamente después de la manipulación. P270: No comer, beber o fumar mientras se manipula este producto. P271: Utilizar sólo al aire libre o en un lugar bien ventilado. P280: Usar guantes / ropa de protección / equipo de protección para la cara / los ojos.

Almacenamiento

P301+330: EN CASO DE INGESTION: enjuagar la boca. P304:340: EN CASO DE INHALACION: transportar la persona al aire libre y mantenerla en una posición que le facilite la respiración. P312: Llamar un centro de toxicología o médico si la persona se encuentra mal. P305+351+338: EN CASO DE CONTACTO CON LOS OJOS: Enjuagar con agua cuidadosamente durante varios minutos. Quitar los lentes de contacto cuando estén presentes y pueda hacerse con facilidad. Proseguir con el lavado. P337+313: Si la irritación ocular persiste, consultar a un médico. P302+352: EN CASO DE CONTACTO CON LA PIEL, lavar con abundante agua. P332+313: En caso de irritación cutánea, consultar a un médico P362+364: Quitar la ropa contaminada y lavarla antes de volver a usar.

Eliminación

P410+403 Almacene en un lugar fresco y seco a temperatura ambiente, lejos de la luz solar directa. Triple enjuague contenedor y oferta para reciclaje.

P501: Deseche el contenido y el recipiente de acuerdo con las regulaciones locales, de la ciudad, estatales y federales.

Producto DILUIDO al USARLO

P103: Leer la etiqueta antes del uso. Evite el contacto directo con el producto.
 P264: Enjuague la piel expuesta después de su uso.

P313: En caso de exposición accidental, consulte a un médico si persiste la irritación.

(No se especifica el código P): Almacene en un lugar fresco y seco a temperatura ambiente, lejos de la luz solar directa.

(No se especifica el código P): Triple enjuague contenedor y oferta para reciclaje. Deseche el contenido y el recipiente de acuerdo con las regulaciones locales, de la ciudad, estatales y federales.

2.3 OTROS RIESGOS PERTINENTES NO CLASIFICADOS DE OTRA MANERA

- No corresponde.

SECCIÓN 3: COMPOSICIÓN/INFORMACIÓN SOBRE INGREDIENTES

3.1/3.2 SUSTANCIAS/MEZCLAS

QUÍMICO	NÚMERO DE CAS	CLASIFICACIÓN DE RIESGO DE GHS POR SUSTANCIAS QUÍMICAS	% (w/w)
Alcoholes, C9-11, etoxilados	68439-46-3	Clasificación de la sustancia química pura: Toxicidad aguda (oral, categoría 4); Corrosión/Irritación en la piel (categoría 2); Daño/Irritación en los ojos (categoría 2); Toxicidad acuática (crónica, categoría 4)	Patentado ¹
Etanol, 2-amino	141-43-5	Líquidos inflamables (categoría 4); Toxicidad aguda, oral (categoría 4); Toxicidad aguda, inhalación (categoría 4); Toxicidad aguda, cutánea (categoría 4); Corrosión en la piel (categoría 1B); Daño grave en los ojos (categoría 1); Toxicidad acuática aguda (categoría 3); Toxicidad acuática crónica (categoría 3)	Patentado
Citrato de sodio, dihidrato	6132-04-3	No clasificado.	Patentado
Los componentes restantes de este producto no están clasificados como peligrosos en sus respectivas concentraciones.			Balance

¹El porcentaje exacto de la composición no se revela por ser un secreto comercial. Se han declarado todos los riesgos físicos y a la salud pertinentes, de conformidad con los requisitos reglamentarios.

SECCIÓN 4: MEDIDAS DE PRIMEROS AUXILIOS

4.1 DESCRIPCIÓN DE LAS MEDIDAS DE PRIMEROS AUXILIOS

ÁREA EXPUESTA	Producto COMERCIALIZADO	Producto DILUIDO al USARLO
Contacto con los ojos	Enjuague con abundante agua durante 15 minutos. Mire hacia arriba mientras se enjuaga los ojos. Quite los lentes de contacto. Si la irritación persiste, busque atención médica.	Enjuague con abundante agua durante 15 minutos. Mire hacia arriba mientras se enjuaga los ojos. Quite los lentes de contacto. Si la irritación persiste, busque atención médica.
Contacto con la piel	Enjuague el área con agua tibia y corriente durante varios minutos. Si la irritación persiste, busque atención médica.	Enjuague el área con agua tibia y corriente durante varios minutos.
Inhalación	Salga al aire fresco.	Salga al aire fresco.
Ingestión	Si está consciente: Enjuáguese la boca con agua. No induzca el vómito. Póngase en contacto con un Centro para el Control de Envenenamientos o con un médico y siga las indicaciones.	Si está consciente: Enjuáguese la boca con agua. No induzca el vómito. Póngase en contacto con un Centro para el Control de Envenenamientos o con un médico y siga las indicaciones.

4.2 SÍNTOMAS AGUDOS Y CRÓNICOS MÁS IMPORTANTES COMO RESULTADO DE UNA EXPOSICIÓN

- EFECTOS AGUDOS EN LA SALUD:

ÁREA EXPUESTA	Producto COMERCIALIZADO	Producto DILUIDO al USARLO
Contacto con los ojos	Puede ocasionar irritación en los ojos, dependiendo de la duración del contacto con la piel.	No se prevé que el producto diluido cause efectos adversos en circunstancias típicas si los primeros auxilios se brindan con prontitud.
Contacto con la piel	Ocasiona irritación leve en la piel.	Puede causar irritación ocular leve, especialmente después de una exposición prolongada.
Inhalación	Ocasiona irritación en las vías respiratorias; Los síntomas pueden incluir tos y estornudos. Puede ser dañino para las membranas mucosas expuestas.	No se prevén efectos adversos.
Ingestión	Ocasiona irritación del sistema gastrointestinal; Los síntomas pueden incluir dolor, garganta irritada, náuseas y vómito. También puede ser dañino para las membranas mucosas expuestas.	No se prevén efectos adversos.

- EFECTOS CRÓNICOS EN LA SALUD:

Producto COMERCIALIZADO	Producto DILUIDO al USARLO
No se ha informado ninguno.	No se ha informado ninguno.

Producto COMERCIALIZADO	Producto DILUIDO al USARLO
Piel, ojos.	No se ha informado ninguno.

4.3 INDICACIÓN DE ATENCIÓN MÉDICA INMEDIATA Y TRATAMIENTO ESPECIAL NECESARIO:

La siguiente información es para el **Producto COMERCIALIZADO** y el **Producto DILUIDO al USARLO**.

- **INFORMACIÓN GENERAL:** Para toda clase de exposiciones: En caso de accidente, o si no se siente bien, busque atención médica de inmediato. Llévese este documento y una copia de la etiqueta a su consulta con el médico.
- **RECOMENDACIONES PARA EL MÉDICO:** Dé tratamiento de acuerdo con los síntomas.
- **AFECCIONES MÉDICAS QUE PUEDEN AGRAVARSE CON UNA SOBREEXPOSICIÓN:** No se ha informado ninguna.

SECCIÓN 5: MEDIDAS CONTRA INCENDIOS

A menos que se indique lo contrario, la información de esta sección corresponde al **Producto COMERCIALIZADO** y el **Producto DILUIDO al USARLO**.

5.1 MEDIO PARA APAGAR UN INCENDIO

- **MEDIO RECOMENDADO PARA APAGAR UN INCENDIO:** Spray de agua, chorro de agua, polvo seco, espuma, dióxido de carbono, o cualquier otro medio.
- **MEDIOS NO ADECUADOS PARA APAGAR UN INCENDIO:** Ninguno conocido.

5.2 RIESGOS ESPECIALES QUE PUEDEN SURGIR DEBIDO A LA SUSTANCIA O MEZCLA

- **CLASIFICACIÓN DE NFPA SOBRE INFLAMABILIDAD:**

Clasificación	Producto COMERCIALIZADO	Producto DILUIDO al USARLO
Calificación de NFPA		

Clasificación de NFPA No inflamable.

No inflamable.

- **RIESGOS INUSUALES EN CASO DE INCENDIO:**

Productos de descomposición	Dióxido de carbono, monóxido de carbono, amoniaco, óxidos de nitrógeno y vapores irritantes.
Susceptibilidad a explosiones en caso de impacto mecánico	No corresponde.
Susceptibilidad a explosiones en caso de descarga estática	No corresponde.

5.3 SUGERENCIAS PARA LOS BOMBEROS

- En cualquier situación, debe usar un equipo de protección completo y aparatos de respiración autónomos para apagar incendios. Mueva los contenedores del área del incendio si es posible hacerlo sin poner en riesgo al personal. En caso contrario, utilice spray de agua para mantener frescos los contenedores expuestos al fuego. Debido a que este producto es un agente de limpieza, el equipo que entre en contacto con esta solución se puede enjuagar bien con agua y luego puede volverse a usar.

SECCIÓN 6: MEDIDAS EN CASO DE DERRAME ACCIDENTAL

A menos que se indique lo contrario, la información de esta sección corresponde al **Producto COMERCIALIZADO** y el **Producto DILUIDO al USARLO**.

6.1 PRECAUCIONES PERSONALES, EQUIPO DE PROTECCIÓN Y PROCEDIMIENTOS DE EMERGENCIA

- **RESPUESTA ANTE DERRAMES ACCIDENTALES:** El personal que ha recibido capacitación básica para la manipulación de sustancias químicas puede manejar los derrames a pequeña escala. Es necesario utilizar guantes y lentes de seguridad al limpiar los derrames. Mientras limpia, tenga cuidado; los pisos y objetos contaminados pueden estar resbalosos.
- **RESPUESTA ANTE DERRAMES NO ACCIDENTALES:** En general, los derrames de este material no irán más allá de la pérdida de un envío de material. Por lo tanto, el personal puede seguir las instrucciones en caso de derrames accidentales. Según corresponda, responda a los derrames no accidentales de sustancias químicas cuando haya un derrame de este producto (como la destrucción simultánea de varias paletas del producto) limpiando el área afectada y poniéndose en contacto con el personal de emergencias adecuado. En el caso improbable de que haya un derrame de múltiples contenedores del **PRODUCTO COMERCIALIZADO**, y si no existen otras condiciones peligrosas en el área, se recomienda el uso de una mascarilla purificadora de aire con filtro de partículas, escudo facial, lentes de seguridad y guantes dobles (por ejemplo, guantes de nitrilo sobre otros de látex), y también se recomienda protección corporal si existe la posibilidad de que se generen rocíos o salpicaduras durante la operación de limpieza.
- **PROCEDIMIENTOS DE RESPUESTA ANTE CUALQUIER DERRAME:** Absorba el líquido derramado con polypads u otros materiales absorbentes adecuados. Enjuague bien el área. Debido a que este producto es un agente de limpieza, todos los objetos que entren en contacto con la solución pueden volver a usarse después de enjuagárselos.

6.2 PRECAUCIONES AMBIENTALES

- Evite las acciones de respuesta que puedan ocasionar el derrame de una cantidad significativa del producto (más de 4 galones) en el medioambiente. Evite la dispersión accidental del material derramado en la tierra, vías acuáticas y alcantarillados.

6.3 MÉTODOS Y MATERIALES PARA LA CONTENCIÓN Y LABORES DE LIMPIEZA

- **EQUIPO DE RESPUESTA EN CASO DE DERRAME:** Polypad u otro material absorbente.

6.4 REFERENCIAS A OTRAS SECCIONES

- **SECCIÓN 8:** Para los niveles de exposición y recomendaciones detalladas del equipo de protección personal.
- **SECCIÓN 13:** Para conocer las pautas en el manejo de desperdicios.

SECCIÓN 7: MANIPULACIÓN Y ALMACENAMIENTO

7.1 PRECAUCIONES PARA EL MANEJO SEGURO

Prácticas de higiene

Producto COMERCIALIZADO

Manténgase fuera del alcance de los niños. Siga las buenas prácticas de higiene química. No fume, beba, coma ni se aplique cosméticos en el área de uso de sustancias químicas. Evite la inhalación de rocíos y sprays. Utilice en áreas bien ventiladas. Evite el contacto con la piel o los ojos. Retire la vestimenta contaminada inmediatamente. Limpie el producto derramado de inmediato. Los empleados deben estar debidamente capacitados para utilizar este producto de la manera más segura según sea necesario. Mantenga los recipientes cerrados cuando no los use.

Producto DILUIDO al USARLO

Manténgase fuera del alcance de los niños. Siga las buenas prácticas de higiene química. No fume, beba, coma ni se aplique cosméticos en el área de uso de sustancias químicas. Evite la inhalación de rocíos y sprays. Utilice en áreas bien ventiladas. Evite el contacto con la piel o los ojos. Retire la vestimenta contaminada inmediatamente. Limpie el producto derramado de inmediato. Los empleados deben estar debidamente capacitados para utilizar este producto de la manera más segura según sea necesario. Mantenga los recipientes cerrados cuando no los use.

Prácticas de manejo

Producto COMERCIALIZADO

Asegúrese de que todos los envases estén etiquetados de manera correcta. Conserve los envases fuera de la luz solar directa, de las fuentes intensas de calor o cuando sea posible que se congelen. Almacene este producto alejado de sustancias químicas incompatibles. Revise todos los contenedores entrantes antes de guardar, para asegurarse de que estén debidamente etiquetados y no se encuentren dañados. Los envases vacíos pueden contener residuos de líquido, por lo tanto, deben manejarse con cuidado.

Consulte la sección 10 (estabilidad y reactividad).

Producto DILUIDO al USARLO

Asegúrese de que todos los envases estén etiquetados de manera correcta. Conserve los envases fuera de la luz solar directa, de las fuentes intensas de calor o cuando sea posible que se congelen. Almacene este producto alejado de sustancias químicas incompatibles.

7.2 CONDICIONES PARA EL ALMACENAMIENTO SEGURO, INCLUYENDO CUALQUIER INCOMPATIBILIDAD

Prácticas de almacenamiento

Producto COMERCIALIZADO

Asegúrese de que todos los envases estén etiquetados de manera correcta. Conserve los envases fuera de la luz solar directa, de las fuentes intensas de calor o cuando sea posible que se congelen. Almacene este producto alejado de sustancias químicas incompatibles. Revise todos los contenedores entrantes antes de guardar, para asegurarse de que estén debidamente etiquetados y no se encuentren dañados. Los envases vacíos pueden contener residuos de líquido, por lo tanto, deben manejarse con cuidado.

Consulte la sección 10 (estabilidad y reactividad).

Incompatibilidades

Consulte la sección 10 (estabilidad y reactividad).

SECCIÓN 8: CONTROLES DE EXPOSICIÓN/PROTECCIÓN PERSONAL

8.1 PARÁMETROS DE CONTROL

- LÍMITES DE EXPOSICIÓN EN EL AIRE:** No establecidos.

COMPONENTE	ACGIH TLV	OSHA PEL	NIOSH REL	OTRO
Etanol, 2-amino	TWA = 3 ppm; STEL = 6 ppm	TWA = 3 ppm	TWA = 3 ppm; STEL = 6 ppm	CA PEL: TWA = 3 ppm; STEL = 6 ppm IDLH = 30 ppm

- LÍMITES DE EXPOSICIÓN BIOLÓGICA EN EL TRABAJO:** No establecidos.

8.2 CONTROLES DE EXPOSICIÓN/PROTECCIÓN PERSONAL

- PRODUCTO COMERCIALIZADO:**

Controles de ingeniería

Utilice en ambientes bien ventilados.

Protección respiratoria

No es necesario en circunstancias de uso normal.

Protección de las manos

Se recomiendan guantes de neopreno, PVC o butilo si existe la posibilidad de contacto con la piel. Asegúrese de que los guantes estén intactos antes de usarlos.

Protección de los ojos

Gafas de seguridad, si pueden ocurrir salpicaduras/sprays al usar.

Protección corporal

No es necesario en circunstancias de uso normal.

- PRODUCTO DILUIDO AL USARLO:**

Precauciones personales

Utilice en ambientes bien ventilados. Por lo general, no se requiere protección personal para la mayoría de las circunstancias de uso. Si existe la posibilidad de períodos prolongados de uso de este producto, o volúmenes mayores de lo normal, consulte la información de Recomendaciones de uso anterior.

SECCIÓN 8: CONTROLES DE EXPOSICIÓN/PROTECCIÓN PERSONAL (continuación)

8.3 SÍMBOLOS DE PROTECCIÓN PERSONAL

Protección de las manos
(Si se provee contacto con la piel)

Producto COMERCIALIZADO



Producto DILUIDO al USARLO

No se necesitan guantes.

Protección de los ojos
(Si pueden ocurrir salpicaduras o sprays)

No se necesita protección para los ojos.



SECCIÓN 9: PROPIEDADES FÍSICAS Y QUÍMICAS

9.1 INFORMACIÓN SOBRE LAS PROPIEDADES FÍSICAS Y QUÍMICAS BÁSICAS

	Producto COMERCIALIZADO	Producto DILUIDO al USARLO
Aspecto	Líquido morado oscuro.	Morado claro.
Olor	Suave.	Suave.
Umbral olfativo	No determinado.	No determinado.
pH:	10-11	8-10
Punto de fusión y punto de congelamiento	No determinado.	Aprox. 0 °C (32 °F).
Punto de ebullición inicial y rango de ebullición	99 °C (210 °F).	Aproximadamente 100 °C (212 °F).
Punto de inflamación	> 99 °C (210 °F) (Pensky-Marten)	No corresponde.
Tasa de evaporación (Agua = 1)	Aprox. 1.0.	Aprox. 1.0.
Inflamabilidad	No corresponde.	No corresponde.
Límites superiores e inferiores de explosividad	No corresponde.	No corresponde.
Presión de vapor	No determinado.	No determinado.
Densidad del vapor	No determinado.	No determinado.
Densidad relativa (Densidad)	1.03 (8.34 lb/gal)	Aprox. 1.0.
Solubilidad	Totalmente soluble en agua.	Totalmente soluble en agua.
Coeficiente de partición n-octanol/agua	No determinado.	No determinado.
Temperatura de autoinflamación	No corresponde.	No corresponde.
Temperatura de descomposición	No determinado.	No determinado.
Viscosidad	No determinado.	No determinado.

9.2 INFORMACIÓN ADICIONAL

- VOC (menos agua y exento): 0 G/L.
- PESO % VOC: No corresponde.

SECCIÓN 10: ESTABILIDAD Y REACTIVIDAD

A menos que se indique lo contrario, la información de esta sección corresponde al **Producto COMERCIALIZADO** y el **Producto DILUIDO al USARLO**.

10.1 REACTIVIDAD

- No es reactivo en condiciones normales de uso o manipulación.

10.2 ESTABILIDAD QUÍMICA

- Es normalmente estable en condiciones estándar de temperatura y presiones.

10.3 POSIBILIDAD DE REACCIONES PELIGROSAS

- Este producto no es autoreactivo, ni reactivo al agua o al aire.
- Este producto no experimentará una polimerización peligrosa.

10.4 CONDICIONES QUE SE DEBEN EVITAR

- Evite el contacto con sustancias químicas incompatibles.

10.5 MATERIALES INCOMPATIBLES

- Agentes oxidantes fuertes, oxidantes, amoníaco, cloro, ácidos fuertes y materiales alcalinos fuertes.

10.6 PRODUCTOS DE DESCOMPOSICIÓN PELIGROSA

- Los ingredientes de descomposición térmica de este producto incluyen monóxido de carbono, dióxido de carbono, amoniaco y óxidos de nitrógeno.

SECCIÓN 11: INFORMACIÓN TOXICOLÓGICA

A menos que se indique lo contrario, la información de esta sección corresponde al **Producto COMERCIALIZADO** y el **Producto DILUIDO al USARLO**.

11.1 INFORMACIÓN SOBRE LOS EFECTOS TOXICOLÓGICOS

- **TOXICIDAD AGUDA:** Producto - LD₅₀ estimado (Oral, rata) > 8000 mg/kg
 - **DATOS DE TOXICIDAD:** Los siguientes datos están disponibles para los componentes peligrosos de este producto enumerados en la sección 3 (Composición e información de los ingredientes).

ETANOL, 2-AMINO LD ₅₀ (Oral, rata) = 1,720 mg/kg LD ₅₀ (Piel, conejo) = 1,050 mg/kg	ALCOHOLES, C9-11, ETOXILADOS LD ₅₀ (Oral, rata) = 1000 mg/kg
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- **GRADO DE IRRITACIÓN:** Irritante dérmico y ocular. Consulte la sección 4 (medidas de primeros auxilios) para obtener más información. Los siguientes datos sobre irritación están disponibles para los componentes de este producto:

ALCOHOLES, C9-11, ETOXILADOS Corrosión e irritación en la piel (conejo) = Irritación en la piel/ 24 horas Daño e irritación en los ojos (conejo) = Irritación grave en los ojos/ 24 horas	
--	--
- **SENSIBILIZACIÓN:** No se ha informado que los componentes de este producto tengan efectos de sensibilización cutánea o respiratoria.
- **REVISIÓN DE SÍNTOMAS AGUDOS Y EFECTOS POR LA VÍA DE EXPOSICIÓN:** Consulte la sección 2 (información de riesgos) y la sección 4 (medidas de primeros auxilios) para obtener más detalles.

- | | <u>Producto COMERCIALIZADO</u> | <u>Producto DILUIDO al USARLO</u> |
|-------------------|---|-----------------------------------|
| Ojos | Irrita los ojos. | Puede irritar los ojos. |
| Piel | Ocasiona irritación leve en la piel. | No se anticipan efectos adversos. |
| Inhalación | Puede ocasionar irritación en las vías respiratorias. | No se anticipan efectos adversos. |
| Ingestión | Puede ocasionar irritación gastrointestinal. | No se anticipan efectos adversos. |
- **TOXICIDAD CRÓNICA:**
 - **CONDICIÓN CARCINÓGENA:** Los componentes de este producto no están listados como carcinógenos por IARC, NTP u OSHA.
 - **INFORMACIÓN DE TOXICIDAD REPRODUCTIVA:** No se ha informado que los componentes de este producto ocasionen efectos reproductivos en condiciones normales de exposición.
 - **EFFECTOS MUTAGÉNICOS:** No se ha informado que los componentes de este producto ocasionen efectos reproductivos en condiciones normales de exposición.
 - **TOXICIDAD ESPECÍFICA EN ÓRGANOS AFECTADOS POR EXPOSICIÓN ÚNICA:** No corresponde.
 - **TOXICIDAD ESPECÍFICA EN ÓRGANOS AFECTADOS POR EXPOSICIÓN REPETIDA:** No corresponde.
 - **RIESGO DE ASPIRACIÓN:** No corresponde.
 - **INFORMACIÓN ADICIONAL:**
 - **PRODUCTOS TOXICOLÓGICOS SINÉRGICOS:** Ninguno conocido.
 - **TOXICOLOGÍA ADICIONAL:** No corresponde.

SECCIÓN 12: INFORMACIÓN ECOLÓGICA

A menos que se indique lo contrario, la información de esta sección corresponde al **Producto COMERCIALIZADO** y el **Producto DILUIDO al USARLO**.

12.1 TOXICIDAD

- En base a los datos disponibles, no está previsto que este producto sea dañino o fatal para plantas o animales acuáticos o terrestres que se hayan contaminado.
- Los siguientes datos sobre toxicidad acuática están disponibles para los componentes de este producto:

ALCOHOLES, C9-11, ETOXILADOS

LC50 - Cyprinus carpio (carpa) - 1.4 mg/l - 96 horas
LC50 - Daphnia magna (pulga de agua) - 6.46 mg/l - 48 horas

ETANOL, 2-AMINO

LC50 (Pimephales promelas) : 227 mg/L - 96 horas
EC50 (Daphnia magna) : 65 mg/L - 48 horas
EC50 (Desmodesmus subspicatus): 15 mg/l - 72 horas

SECCIÓN 12: INFORMACIÓN ECOLÓGICA (continuación)

12.2 PERSISTENCIA Y DEGRADABILIDAD

- Si se vierten al terreno, se espera que los componentes de este producto se biodegraden, se disipen en la tierra a través de la oxidación, o bien se degraden químicamente o se descompongan a través de la radiación solar.

12.3 POTENCIAL BIOACUMULATIVO

- No está previsto que este producto se bioacumule de manera significativa.

12.4 MOVILIDAD EN EL TERRENO

- Se espera que este producto presente cierta movilidad en el terreno.

12.5 OTROS EFECTOS ADVERSOS

- No se ha informado ninguno.

SECCIÓN 13: NOTAS SOBRE LA ELIMINACIÓN

13.1 MÉTODOS PARA EL TRATAMIENTO DE RESIDUOS

Producto COMERCIALIZADO

Elimine el producto de acuerdo con todas las reglamentaciones federales, estatales y locales.

Producto DILUIDO al USARLO

Elimine el producto sin usar de acuerdo con todas las reglamentaciones federales, estatales y locales.

13.2 NOTAS SOBRE LA ELIMINACIÓN

Producto COMERCIALIZADO

No corresponde.

Producto DILUIDO al USARLO

No corresponde.

SECCIÓN 14: INFORMACIÓN DE TRANSPORTE

La información de esta sección corresponde al Producto COMERCIALIZADO.

14.1 DESCRIPCIÓN BÁSICA SOBRE MERCANCÍAS PELIGROSAS Y OTRA INFORMACIÓN DE TRANSPORTE

- NORMAS DEL DEPARTAMENTO DEL TRANSPORTE PARA EL ENVÍO DE MATERIALES PELIGROSOS:**

Número de UN/NA	Nombre correcto de envío	Grupo de empaque	Clase de riesgo	Etiqueta	Número de la Guía de Respuestas en caso de Emergencias de Norteamérica	Estado del contaminante marino
NO CORRESPONDE						

- DESIGNACIÓN DE IATA:** Este producto no está considerado como material peligroso por parte de la International Air Transport Association.
- DESIGNACIÓN DE IMO:** Este producto no está considerado como material peligroso por parte de la International Maritime Organization.

14.2 RIESGOS AMBIENTALES

- No se describe ninguno en relación con el transporte.

14.3 PRECAUCIONES ESPECIALES PARA LOS USUARIOS

- No corresponde.

14.4 TRANSPORTE A GRANEL

- No corresponde.

SECCIÓN 15: INFORMACIÓN DE REGLAMENTACIÓN

A menos que se indique lo contrario, la información de esta sección corresponde al **Producto COMERCIALIZADO** y el **Producto DILUIDO al USARLO**.

15.1 REGLAMENTACIONES ESPECÍFICAS PARA EL PRODUCTO SOBRE EL MEDIOAMBIENTE, SEGURIDAD Y SALUD

- **OTRAS REGLAMENTACIONES IMPORTANTES DE LOS EE. UU.**
 - **CATEGORÍAS DE RIESGO SARA DE LOS EE. UU. (SECCIÓN 311/312, CFR 40, 370-21):** Toxicidad aguda; Lesiones o irritación ocular graves; Corrosión/irritación cutáneas.
 - **CANTIDAD PARA INFORMAR DE LA CERCLA (RQ):** No corresponde.
 - **ESTADO DE INVENTARIO DE LA TSCA:** Todos los ingredientes de este producto están enumerados en el inventario de la TSCA.
 - **SARA DE LOS EE. UU, SECCIÓN 313:** No corresponde.
 - **ESTADO DE LA LEY DE CALIFORNIA PARA EL AGUA POTABLE (PROPIUESTA 65):** No corresponde.
- **NORMAS INTERNACIONALES**
 - **ESTADO REGULATORIO CANADIENSE: ESTADO REGULATORIO CANADIENSE:** El producto está clasificado como peligroso de acuerdo con las normas de Productos peligrosos (SOR-2015-17).
 - WHMIS 2015: Consulte la sección 2.
 - Esta SDS contiene toda la información exigida por el HPR.
 - **ESTADO DE INVENTARIO DSL/NDSL DE CANADÁ:** Todos los ingredientes de este producto están enumerados en el inventario de DSL/NDSL.
 - **LISTAS DE SUSTANCIAS PRIORITARIAS DE LA LEY PARA LA PROTECCIÓN AMBIENTAL DE CANADÁ (CEPA):** Los ingredientes de este producto no se encuentran en la lista de sustancias prioritarias de la CEPA.

SECCIÓN 16: INFORMACIÓN ADICIONAL

16.1 INDICACIÓN DE CAMBIOS

- **FECHA DE REVISIÓN:** 11 de noviembre de 2021
- **ANULA:** 4 de septiembre de 2015
- **CAMBIO INDICADO:** Actualización de la información del fabricante, adición de códigos H/P; revisión y actualización regulatoria; establecer una distinción entre equipos de protección personal de uso profesional y de consumo.

16.2 REFERENCIAS CLAVE A DOCUMENTOS Y FUENTES DE DATOS

- HOJAS DE DATOS DE SEGURIDAD PARA LOS INGREDIENTES DE LOS PRODUCTOS.
- Norma federal de Comunicación de riesgos de la OSHA: CFR 29, 1910.1200.

16.3 SISTEMA DE CLASIFICACIÓN DE MATERIALES PELIGROSOS

<u>Producto COMERCIALIZADO</u>		<u>Producto DILUIDO AL USARLO</u>
Salud	1	Calificación del Equipo de Protección Personal de HMIS: Situaciones de uso laboral: B – Lentes de seguridad y guantes.
Inflamabilidad	0	
Riesgos físicos	0	
Equipo de protección	B	Deben usarse gafas de seguridad y guantes cuando se puedan generar salpicaduras / aerosoles.
		Calificación del Equipo de Protección Personal de HMIS: Situaciones de uso laboral: No se necesita equipo de protección en circunstancias normales de uso y manipulación.
		0
		0
		0
		Equipo de protección de No corresponde

SECCIÓN 16: INFORMACIÓN ADICIONAL (continuación)

16.4 DESCARGO DE RESPONSABILIDAD

Waxie's Enterprises, LLC., una empresa de Envoy Solutions (WAXIE) no garantiza, expresa ni asegura la precisión, suficiencia o integridad del material establecido en el presente documento. Es responsabilidad del usuario determinar la seguridad, toxicidad e idoneidad de su propio uso, manejo y eliminación de este producto. Debido a que el uso real por parte de otros está fuera de nuestro control, WAXIE no expresa ni implica ninguna garantía sobre los efectos de dicho uso, los resultados al haberlos obtenido o la seguridad y toxicidad de este producto, y WAXIE tampoco asume ninguna responsabilidad surgida del uso de este producto por parte de otros, al que se hace referencia en el presente documento. Los datos de esta SDS se relacionan únicamente con el material específico designado en el presente y no están relacionados con su uso en combinación con otros materiales o en otro proceso. WAXIE no recomienda mezclar este producto con otras sustancias químicas. Toda la información, recomendaciones y datos contenidos en el presente relativos a este producto se basan en la información disponible en el momento de la redacción, provenientes de fuentes técnicas reconocidas.

16.5 ABREVIATURAS Y ACRÓNIMOS

TODAS LAS SECCIONES: OSHA: Administración Federal de Seguridad y Salud Ocupacional de los EE. UU. WHMIS: Norma para el Manejo de Materiales Peligrosos en el Lugar de Trabajo de Canadá. GHS: Sistema de Clasificación Mundialmente Armonizado de Sustancias Químicas.

SECCIÓN 3: Número de CAS: Número de Registro de resúmenes químicos, el cual es utilizado por la Sociedad Americana de Sustancias Químicas para identificar particularmente a una sustancia química.

SECCIÓN 5: NFPA: Asociación Nacional para la Protección contra Incendios. CLASIFICACIÓN DE NFPA SOBRE INFLAMABILIDAD: La NFPA utiliza el punto de inflamación (FI.P.) y el punto de ebullición (BP) para clasificar los líquidos inflamables o combustibles. Clase IA: FI.P. inferior a 73 °F y BP inferior a 100 °F. Clase IB: FI.P. inferior a 73 °F y BP igual o superior a 100 °F. Clase IC: FI.P. igual o superior a 73 °F y BP igual o superior a 100 °F. Clase II: FI.P. igual o superior a 100 °F e inferior a 140 °F. Clase IIIA: FI.P. igual o superior a 140 °F e inferior a 200 °F. Clase IIIB: FI.P. igual o superior a 200 °F. CALIFICACIÓN DE MATERIALES PELIGROSOS DE NFPA: Este es un sistema de calificaciones utilizado para resumir los riesgos físicos y de salud para los bomberos. 0 = Sin riesgo significativo. 1 = Riesgo leve. 2 = Riesgo moderado. 3 = Riesgo grave. 4 = Riesgo extremo.

SECCIÓN 8: NE: No establecido. ACGIH: Conferencia Americana de Higienistas Industriales del Gobierno; TWA: Promedio ponderado en el tiempo (durante un día de trabajo de 8 horas); STEL: Límite de Exposición a Corto Plazo (un promedio de 15 minutos, no más de 4 veces al día y cada exposición con diferencia de una hora como mínimo); C: Límite máximo (la concentración no debe excederse en un ambiente laboral). PEL: Límite de exposición permisible. NIOSH: Instituto Nacional de la Seguridad y Salud Laborales; REL: Límite recomendado de exposición. ppm: Partes por millón. mg/m³: Miligramos por metro cúbico. mppcf: Millones de partículas por pie cúbico. BEI: Límite de exposición biológica. CA: California - TABLA AC-1 Límites de exposición permitidos para contaminantes en el aire.

SECCIÓN 9: pH: Escala (del 0 al 14) utilizada para medir la acidez o alcalinidad de soluciones acuosas. Por ejemplo, un valor pH de 0 señala que se trata de una solución muy ácida, un pH de 7 señala que es una solución neutral, y un valor pH de 14 indica una solución muy alcalina (base). PUNTO DE INFLAMACIÓN: La temperatura a la cual un líquido genera suficientes vapores inflamables como para que ocurra la ignición. TEMPERATURA DE AUTOINFLAMACIÓN: La temperatura a la cual ocurre una ignición espontánea. LÍMITE EXPLOSIVO INFERIOR (LEL): La concentración mínima de vapores inflamables en el aire que pueden provocar una ignición. LÍMITE EXPLOSIVO SUPERIOR (UEL): La concentración máxima de vapores inflamables en el aire que pueden provocar una ignición. ≈: Símbolo de aproximadamente. VOC: Compuesto orgánico volátil.

SECCIÓN 11: CONDICIÓN CARCINÓGENA: NTP: Programa Nacional de Toxicología. IARC: Agencia Internacional para la Investigación del Cáncer. INFORMACIÓN DE TOXICIDAD REPRODUCTIVA: Mutágeno: Una sustancia que puede causar daños en los cromosomas de las células. Embriotoxina: Una sustancia que puede dañar el embrión en desarrollo en una mujer que sufre sobreexposición. Teratógeno: Una sustancia que puede dañar el feto en desarrollo en una mujer que sufre sobreexposición. Toxina de la reproducción: Una sustancia que puede afectar adversamente a los órganos reproductores femenino o masculino o sus funciones. DATOS TOXICOLÓGICOS: LD_{xx} o LC_{xx}: La Dosis letal o Concentración letal de una sustancia que resultaría mortal en un porcentaje dado (xx) de pruebas en animales expuestos por la vía designada de administración. Este valor se utiliza para conocer la toxicidad de sustancias químicas en humanos. TD_{xx} o TC_{xx}: La Dosis tóxica o Concentración tóxica de una sustancia que ocasionaría un efecto adverso en un porcentaje dado (xx) de pruebas en animales expuestos por la vía designada de administración.

SECCIÓN 12: EC₅₀: Concentración de efecto (en el 50% del grupo de estudio); BOD: Demanda biológica de oxígeno. COD: Demanda química de oxígeno. ThOD: Demanda teórica de oxígeno. TLM: Límite de tolerancia media.

SECCIÓN 13: RCRA: Ley para la Conservación y Recuperación de Recursos. Las normas promulgadas de conformidad con esta ley se encuentran en el CFR 40, secciones 260 ff, y definen los requisitos de la generación, transporte, tratamiento, almacenamiento y eliminación de residuos peligrosos. Códigos de residuos RCRA de la EPA: Se definen en el CFR 40, sección 261.

SECCIÓN 15: CERCLA: Ley Integral de Compensación, Responsabilidad y Respuesta Ambiental (también conocida como "Superfund") y SARA: (Ley de Modificación y Reautorización de la Superfund). Las normas promulgadas de acuerdo con esta ley se localizan en el CFR 40, 300 ff. y brindan los requisitos de "el derecho a saber de la comunidad". TSCA: Ley de Control de Sustancias Tóxicas: Las normas que rigen la fabricación y venta de sustancias químicas, ubicadas en el CFR 40, 700-766. DSL/NDSL: Listas canadienses de Sustancias Domésticas y no Domésticas.

SECCIÓN 16: SISTEMA DE CALIFICACIÓN PARA LA IDENTIFICACIÓN DE MATERIALES PELIGROSOS: Este es un sistema de calificación utilizado por el sector para resumir los riesgos físicos y a la salud de los usuarios de sustancias químicas, y fue desarrollado originalmente por la Asociación Nacional de Pinturas y Recubrimientos. 0 = Sin riesgo significativo. 1 = Riesgo leve. 2 = Riesgo moderado. 3 = Riesgo grave. 4 = Riesgo extremo.



Safety Data Sheet California CARB Compliant

1 - Identification

Product Name: WD-40 Multi-Use Product Aerosol	Manufacturer: WD-40 Company Address: 9715 Businesspark Avenue San Diego, California, USA 92131
Product Use: Lubricant, Penetrant, Drives Out Moisture, Removes and Protects Surfaces From Corrosion	Telephone: Emergency: 1-888-324-7596 Information: 1-888-324-7596 Chemical Spills: 1-800-424-9300 (Chemtrec) 1-703-527-3887 (International Calls)
Restrictions on Use: None identified	
SDS Date Of Preparation: March 5, 2019	

2 – Hazards Identification

Hazcom 2012/GHS Classification:

Flammable Aerosol Category 1

Gas Under Pressure: Compressed Gas

Aspiration Toxicity Category 1

Specific Target Organ Toxicity Single Exposure Category 3 (nervous system effects)

Note: This product is a consumer product and is labeled in accordance with the US Consumer Product Safety Commission regulations which take precedence over OSHA Hazard Communication labeling. The actual container label will not include the label elements below. The labeling below applies to industrial/professional products.

Label Elements:



DANGER!

Extremely Flammable Aerosol.

Contains gas under pressure; may explode if heated.

May be fatal if swallowed and enters airways.

May cause drowsiness or dizziness.

Prevention

Keep away from heat, sparks, open flames, hot surfaces. – No smoking.

Do not spray on an open flame or other ignition source.

Pressurized container: Do not pierce or burn, even after use.

Avoid breathing vapors or mists.

Use only outdoors or in a well-ventilated area.

Response

IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.

Storage

Store locked up.

Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store in a well-ventilated place.

Disposal

Dispose of contents and container in accordance with local and national regulations.

3 - Composition/Information on Ingredients

Ingredient	CAS #	Weight Percent	US Hazcom 2012/ GHS Classification
LVP Aliphatic Hydrocarbon	64742-47-8	45-50%	Aspiration Toxicity Category 1
Petroleum Base Oil	64742-56-9 64742-65-0 64742-53-6 64742-54-7 64742-71-8	<35%	Not Hazardous
Aliphatic Hydrocarbon	64742-47-8	<25%	Flammable Liquid Category 3 Aspiration Toxicity Category 1 Specific Target Organ Toxicity Single Exposure Category 3 (nervous system effects)
Carbon Dioxide	124-38-9	2-3%	Simple Asphyxiant Gas Under Pressure, Compressed Gas

Note: The specific chemical identity and exact percentages are a trade secret.

4 – First Aid Measures

Ingestion (Swallowed): Aspiration Hazard. DO NOT induce vomiting. Call physician, poison control center or the WD-40 Safety Hotline at 1-888-324-7596 immediately.

Eye Contact: Flush thoroughly with water. Remove contact lenses if present after the first 5 minutes and continue flushing for several more minutes. Get medical attention if irritation persists.

Skin Contact: Wash with soap and water. If irritation develops and persists, get medical attention.

Inhalation (Breathing): If irritation is experienced, move to fresh air. Get medical attention if irritation or other symptoms develop and persist.

Signs and Symptoms of Exposure: Harmful or fatal if swallowed. Aspiration of liquid into the lungs during swallowing or vomiting may cause lung damage. May cause eye and respiratory irritation. Inhalation of mists or vapors may cause drowsiness, dizziness and other nervous system effects. Skin contact may cause drying of the skin.

Indication of Immediate Medical Attention/Special Treatment Needed: Immediate medical attention is needed for ingestion.

5 – Fire Fighting Measures

Suitable (and unsuitable) Extinguishing Media: Use water fog, dry chemical, carbon dioxide or foam. Do not use water jet or flooding amounts of water. Burning product will float on the surface and spread fire.

Specific Hazards Arising from the Chemical: Extremely flammable aerosol. Contents under pressure.

Keep away from ignition sources and open flames. Exposure of containers to extreme heat and flames can cause them to rupture often with violent force. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back. Combustion will produce oxides of carbon and hydrocarbons.

Special Protective Equipment and Precautions for Fire-Fighters: Firefighters should always wear positive pressure self-contained breathing apparatus and full protective clothing. Cool fire-exposed containers with water. Use shielding to protect against bursting containers.

6 – Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate protective clothing (see Section 8). Eliminate all sources of ignition and ventilate area.

Methods and Materials for Containment/Cleanup: Leaking cans should be placed in a plastic bag or open pail until the pressure has dissipated. Contain and collect liquid with an inert absorbent and place in a container for disposal. Clean spill area thoroughly. Report spills to authorities as required.

7 – Handling and Storage

Precautions for Safe Handling: Avoid contact with eyes. Avoid prolonged contact with skin. Avoid breathing vapors or aerosols. Use only with adequate ventilation. Keep away from heat, sparks, pilot lights, hot surfaces and open flames. Unplug electrical tools, motors and appliances before spraying or bringing the can near any source of electricity. Electricity can burn a hole in the can and cause contents to burst into flames. To avoid serious burn injury, do not let the can touch battery terminals, electrical connections on motors or appliances or any other source of electricity. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Keep out of the reach of children. Do not puncture, crush or incinerate containers, even when empty.

Conditions for Safe Storage: Store in a cool, well-ventilated area, away from incompatible materials. Do not store above 120°F or in direct sunlight. U.F.C (NFPA 30B) Level 3 Aerosol. Store away from oxidizers.

8 – Exposure Controls/Personal Protection

Chemical	Occupational Exposure Limits
LVP Aliphatic Hydrocarbon	1200 mg/m ³ TWA (manufacturer recommended)
Petroleum Base Oil	5 mg/m ³ TWA (Inhalable) ACGIH TLV (as Mineral oil) 5 mg/m ³ TWA OSHA PEL (as Oil mist, mineral)
Aliphatic Hydrocarbon	1200 mg/m ³ TWA (manufacturer recommended)
Carbon Dioxide	5000 ppm TWA, 30,000 ppm STEL ACGIH TLV 5000 ppm TWA OSHA PEL

The Following Controls are Recommended for Normal Consumer Use of this Product

Appropriate Engineering Controls: Use in a well-ventilated area.

Personal Protection:

Eye Protection: Avoid eye contact. Always spray away from your face.

Skin Protection: Avoid prolonged skin contact. Chemical resistant gloves recommended for operations where skin contact is likely.

Respiratory Protection: None needed for normal use with adequate ventilation.

For Bulk Processing or Workplace Use the Following Controls are Recommended

Appropriate Engineering Controls: Use adequate general and local exhaust ventilation to maintain exposure levels below that occupational exposure limits.

Personal Protection:

Eye Protection: Safety goggles recommended where eye contact is possible.

Skin Protection: Wear chemical resistant gloves.

Respiratory Protection: None required if ventilation is adequate. If the occupational exposure limits are exceeded, wear a NIOSH approved respirator. Respirator selection and use should be based on contaminant type, form and concentration. Follow OSHA 1910.134, ANSI Z88.2 and good Industrial Hygiene practice.

Work/Hygiene Practices: Wash with soap and water after handling.

9 – Physical and Chemical Properties

Appearance:	Light amber liquid	Flammable Limits: (Solvent Portion)	LEL: 0.6% UEL: 8%
Odor:	Mild petroleum odor	Vapor Pressure:	95-115 PSI @ 70°F
Odor Threshold:	Not established	Vapor Density:	Greater than 1 (air=1)
pH:	Not Applicable	Relative Density:	0.8 – 0.82 @ 60°F
Melting/Freezing Point:	Not established	Solubilities:	Insoluble in water
Boiling Point/Range:	361 - 369°F (183 - 187°C)	Partition Coefficient; n-octanol/water:	Not established
Flash Point:	138°F (59°C) Tag Closed Cup (liquid)	Autoignition Temperature:	Not established

Evaporation Rate:	Not established	Decomposition Temperature:	Not established
Flammability (solid, gas):	Flammable Aerosol	Viscosity:	2.79-2.96 cSt @ 100°F
VOC:	24.1% MIR=0.43gO3/gVOC	Pour Point:	-63°C (-81.4°F) ASTM D-97

10 – Stability and Reactivity

Reactivity: Not reactive under normal conditions

Chemical Stability: Stable

Possibility of Hazardous Reactions: May react with strong oxidizers generating heat.

Conditions to Avoid: Avoid heat, sparks, flames and other sources of ignition. Do not puncture or incinerate containers.

Incompatible Materials: Strong oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide and carbon dioxide.

11 – Toxicological Information

Symptoms of Overexposure:

Inhalation: High concentrations may cause nasal and respiratory irritation and central nervous system effects such as headache, dizziness and nausea. Intentional abuse may be harmful or fatal.

Skin Contact: Prolonged and/or repeated contact may produce mild irritation and defatting with possible dermatitis.

Eye Contact: Contact may be irritating to eyes. May cause redness and tearing.

Ingestion: This product has low oral toxicity. Swallowing may cause gastrointestinal irritation, nausea, vomiting and diarrhea. This product is an aspiration hazard. If swallowed, can enter the lungs and may cause chemical pneumonitis, severe lung damage and death.

Chronic Effects: None expected.

Carcinogen Status: None of the components are listed as a carcinogen or suspect carcinogen by IARC, NTP, ACGIH or OSHA.

Reproductive Toxicity: None of the components is considered a reproductive hazard.

Numerical Measures of Toxicity:

Acute Toxicity Estimates: Oral > 5,000 mg/kg; Dermal >2,000 mg/kg based on an assessment of the ingredients. This product is not classified as toxic by established criteria. It is an aspiration hazard.

12 – Ecological Information

Ecotoxicity: No specific aquatic toxicity data is currently available; however components of this product are not expected to be harmful to aquatic organisms

Persistence and Degradability: Components are readily biodegradable.

Bioaccumulative Potential: Bioaccumulation is not expected based on an assessment of the ingredients.

Mobility in Soil: No data available

Other Adverse Effects: None known

13 - Disposal Considerations

If this product becomes a waste, it would be expected to meet the criteria of a RCRA ignitable hazardous waste (D001). However, it is the responsibility of the generator to determine at the time of disposal the proper classification and method of disposal. Do not puncture or incinerate containers, even empty. Dispose in accordance with federal, state, and local regulations.

14 – Transportation Information

DOT Surface Shipping Description: UN1950, Aerosols, 2.1 Ltd. Qty

(Note: Shipping Papers are not required for Limited Quantities unless transported by air or vessel – each package must be marked with the Limited Quantity Mark)

IMDG Shipping Description: UN1950, Aerosols, 2.1, LTD QTY

ICAO Shipping Description: UN1950, Aerosols, flammable, 2.1

NOTE: WD-40 Company does not test aerosol cans to assure that they meet the pressure and other requirements for transport by air. We do not recommend that our aerosol products be transported by air.

15 – Regulatory Information

U.S. Federal Regulations:

CERCLA 103 Reportable Quantity: This product is not subject to CERCLA reporting requirements, however, oil spills are reportable to the National Response Center under the Clean Water Act and many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA TITLE III:

Hazard Category For Section 311/312: Acute Health, Fire Hazard, Sudden Release of Pressure

Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III

Section 313 Reporting requirements: None

Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65): This product does not require a California Proposition 65 warning.

VOC Regulations: This product complies with the consumer product VOC limits of CARB, the US EPA and states adopting the OTC VOC rules.

Canadian Environmental Protection Act: All of the ingredients are listed on the Canadian Domestic Substances List or exempt from notification

16 – Other Information

HMIS Hazard Rating:

Health – 1 (slight hazard), Fire Hazard – 4 (severe hazard), Physical Hazard – 0 (minimal hazard)

Revision Date: March 5, 2019

Supersedes: July 19, 2018

Revision Summary: Section 9 update VOC data

Prepared by: Industrial Health & Safety Consultants, Inc. Shelton, CT, USA

Reviewed by: I. Kowalski

Regulatory Affairs Dept.

1012200/No.0084704

SAFETY DATA SHEET

ZEP AIR & FABRIC ODOR ELMINATOR_1GL_4CT

Version 3.3

Revision Date 10/01/2023

Print Date 04/23/2025

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP AIR & FABRIC ODOR ELMINATOR_1GL_4CT
Material number : ZUAIR128
Manufacturer or supplier's details
Company : Zep Inc.
Address : 350 Joe Frank Harris Parkway, SE
Emerson, GA 30137
Telephone : Compliance Services - 877-428-9937

Emergency telephone numbers

For SDS Information	: Compliance Services - 877-428-9937
For a Medical Emergency	: 877-541-2016 Toll Free - All Calls Recorded
For a Transportation Emergency	: CHEMTREC: 800-424-9300 - All Calls Recorded. In the District of Columbia 202-483-7616

Recommended use of the chemical and restrictions on use

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	liquid
Colour	colourless
Odour	pleasant

GHS Classification

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration [%]
Alcohols, C12-16, ethoxylated	68551-12-2	>= 1 < 3
propan-2-ol	67-63-0	>= 1 < 3

The exact percentages of disclosed substances are withheld as trade secrets.

SAFETY DATA SHEET

ZEP AIR & FABRIC ODOR ELIMINATOR_1GL_4CT

Version 3.3

Revision Date 10/01/2023

Print Date 04/23/2025

SECTION 4. FIRST AID MEASURES

- General advice : Do not leave the victim unattended.
Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
- If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : Remove contaminated clothing and shoes.
Wash off immediately with plenty of water for at least 15 minutes.
Wash contaminated clothing before reuse.
If skin irritation persists, call a physician.
- In case of eye contact : Remove contact lenses.
Protect unharmed eye.
If eye irritation persists, consult a specialist.
Keep eye wide open while rinsing.
Rinse immediately with plenty of water for at least 15 minutes.
- If swallowed : Keep respiratory tract clear.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.
- Most important symptoms and effects, both acute and delayed : Effects may be delayed, symptoms may include minor eye or skin irritation.
Overexposure may cause mild eye or skin irritation.
- Notes to physician : Treat symptomatically. Symptoms may be delayed.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray jet
Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Carbon dioxide (CO₂)
Carbon monoxide
Smoke
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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- Further information : Standard procedure for chemical fires.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation.
Evacuate personnel to safe areas.
Use personal protective equipment.
- Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage.
If the product contaminates rivers and lakes or drains, inform respective authorities.
- Methods and materials for containment and cleaning up : Wipe up with absorbent material (e.g. cloth, fleece).
Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
- Conditions for safe storage : Electrical installations / working materials must comply with the technological safety standards.
- Materials to avoid : No materials to be especially mentioned.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
propan-2-ol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		TWA	400 ppm 980 mg/m ³	NIOSH REL
		ST	500 ppm 1,225 mg/m ³	NIOSH REL
		TWA	400 ppm 980 mg/m ³	OSHA Z-1
		TWA	400 ppm 980 mg/m ³	OSHA P0
		STEL	500 ppm 1,225 mg/m ³	OSHA P0

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	PEL	400 ppm 980 mg/m ³	CAL PEL
	STEL	500 ppm 1,225 mg/m ³	CAL PEL

Biological occupational exposure limits

Component	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
PROPAN-2-OL	67-63-0	Acetone	Urine	End of shift at end of workweek	40 mg/l	ACGIH BEI

Engineering measures : effective ventilation in all processing areas

Personal protective equipment

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Hand protection

Material : Protective gloves

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Safety glasses

Skin and body protection : Impervious clothing
No special protection is required.

Hygiene measures : Wash hands before breaks and at the end of workday.
When using do not eat or drink.
When using do not smoke.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: colourless
Odour	: pleasant
Odour Threshold	: No data available
pH	: 6 - 7.5
Melting point/freezing point	: No data available
Boiling point	: 100 °C
Flash point	: > 93.3 °C Method: TCC

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Evaporation rate	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Density	: 0.99 g/cm3
Solubility(ies)	
Water solubility	: soluble
Solubility in other solvents	: not determined
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: not determined
Thermal decomposition	: No data available
Viscosity	
Viscosity, kinematic	: No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Stable
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Stable under recommended storage conditions. No hazards to be specially mentioned.
Conditions to avoid	: No data available
Incompatible materials	: None.
Hazardous decomposition products	: No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects

Aggravated Medical Condition	: None known.
Symptoms of Overexposure	: Effects may be delayed, symptoms may include minor eye or skin irritation. Overexposure may cause mild eye or skin irritation. Treat symptomatically. Symptoms may be delayed.

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Carcinogenicity:

IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg
Method: Calculation method

Components:

propan-2-ol:

Acute oral toxicity : LD50 Oral Rat: 4,396 mg/kg
Method: Calculation method

Skin corrosion/irritation

Product:

Remarks: May irritate skin.

Serious eye damage/eye irritation

Product:

Remarks: May irritate eyes.

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

STOT - single exposure

No data available

STOT - repeated exposure

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No data available

Aspiration toxicity

No data available

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

Product:

Partition coefficient: n-octanol/water : Remarks: No data available

Components:

propan-2-ol :

Partition coefficient: n-octanol/water : log Pow: 0.05

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Regulation 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : No data available

SECTION 13. DISPOSAL CONSIDERATIONS

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Disposal methods

- Waste from residues : Do not contaminate ponds, waterways or ditches with chemical or used container.
The product should not be allowed to enter drains, water courses or the soil.
Dispose of in accordance with local regulations.
- Contaminated packaging : Do not re-use empty containers.
Empty remaining contents.
Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

Transportation Regulation: 49 CFR (USA):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: IMDG (Vessel):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: IATA (Cargo Air):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: IATA (Passenger Air):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: TDG (Canada):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

The product as delivered to the customer conforms to packaging requirements for shipment by road under US Department of Transportation (DOT) regulations. Additional transportation classifications noted above are for reference only, and not a certification or warranty of the suitability of the packaging for shipment under these alternative transport regulations.

SECTION 15. REGULATORY INFORMATION

- TSCA list** : No substances are subject to a Significant New Use Rule.
No substances are subject to TSCA 12(b) export notification requirements.

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

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Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
copper dinitrate	3251-23-8	100	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop. 65



WARNING: This product can expose you to chemicals including 1,4-dioxane, which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

The components of this product are reported in the following inventories:

TSCA On TSCA Inventory
DSL All components of this product are on the Canadian DSL

For information on the country notification status for other regions please contact the manufacturer's regulatory group.

Inventory Acronym and Validity Area Legend:

TSCA (USA), DSL (Canada), NDSL (Canada)

SECTION 16. OTHER INFORMATION

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Further information

NFPA:

HEALTH	1
FLAMMABILITY	1
INSTABILITY	0
SPECIAL HAZARD.	

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme

HMIS III:

HEALTH	0
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

OSHA - GHS Label Information:

Not a hazardous substance or mixture.

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We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. Users should make their own investigations to determine the suitability and applicability of the information for their particular purposes. This SDS has been prepared by the Compliance Services organization supporting this manufacturer, supplier or distributor.

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ZEP ALL-PURPOSE CLEANER & DEGREASER QT 12CT

Version 4.1

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Print Date 04/23/2025

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP ALL-PURPOSE CLEANER & DEGREASER QT 12CT
Material number : ZUALL32
Manufacturer or supplier's details
Company : Zep Inc.
Address : 350 Joe Frank Harris Parkway, SE
Emerson, GA 30137
Telephone : Compliance Services - 877-428-9937

Emergency telephone numbers

For SDS Information	: Compliance Services - 877-428-9937
For a Medical Emergency	: 877-541-2016 Toll Free - All Calls Recorded
For a Transportation Emergency	: CHEMTREC: 800-424-9300 - All Calls Recorded. In the District of Columbia 202-483-7616

Recommended use of the chemical and restrictions on use

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	liquid
Colour	clear, green
Odour	pleasant

GHS Classification

Eye irritation : Category 2A

GHS label elements

Hazard pictograms : 
Exclamation mark

Signal word : Warning

Hazard statements : H319 Causes serious eye irritation.

Precautionary statements : **Prevention:**
P264 Wash skin thoroughly after handling.
P280 Wear eye protection/ face protection.
Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/

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attention.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration [%]
Alcohols, C9-11, ethoxylated	68439-46-3	>= 1 - < 3

The exact percentages of disclosed substances are withheld as trade secrets.

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : Wash contaminated clothing before re-use.
Remove contaminated clothing and shoes.
If skin irritation persists, call a physician.
Wash off immediately with plenty of water for at least 15 minutes.
- In case of eye contact : Rinse immediately with plenty of water for at least 15 minutes.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.
- Most important symptoms and effects, both acute and delayed : Effects are dependent on exposure (dose, concentration, contact time).
Effects are immediate and delayed.
Symptoms may include irritation, redness, pain, and rash.
Causes serious eye irritation.
- Notes to physician : Treat symptomatically. Symptoms may be delayed.

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SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Dry chemical Water spray jet Carbon dioxide (CO2) Alcohol-resistant foam
Unsuitable extinguishing media	: High volume water jet
Specific hazards during firefighting	: Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	: Carbon dioxide (CO2) Carbon monoxide Smoke
Specific extinguishing methods	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Further information	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for firefighters	: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Use personal protective equipment. Ensure adequate ventilation. Refer to protective measures listed in sections 7 and 8.
Environmental precautions	: Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. If the product contaminates rivers and lakes or drains, inform respective authorities.
Methods and materials for containment and cleaning up	: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up or vacuum up spillage and collect in suitable container for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	: For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Avoid contact with skin and eyes. Avoid exposure - obtain special instructions before use.
Conditions for safe storage	: Keep container tightly closed in a dry and well-ventilated

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place.

Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid : Keep away from oxidizing agents and strongly acid or alkaline materials.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures : effective ventilation in all processing areas

Personal protective equipment

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Hand protection

Material : Protective gloves

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection

: Safety glasses

Ensure that eyewash stations and safety showers are close to the workstation location.

Skin and body protection

: Impervious clothing

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

: When using do not eat, drink or smoke.

When using do not smoke.

Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : clear, green

Odour : pleasant

Odour Threshold : No data available

pH : 10.5 - 11.5

Melting point/freezing point : No data available

Boiling point : 100 °C

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Flash point	:	does not flash
Evaporation rate	:	No data available
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	not determined
Relative vapour density	:	No data available
Density	:	0.99 g/cm3
Solubility(ies)	:	
Water solubility	:	soluble
Solubility in other solvents	:	not determined
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	not determined
Thermal decomposition	:	No data available
Viscosity	:	
Viscosity, kinematic	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Stable
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No decomposition if stored and applied as directed.
Conditions to avoid	:	No data available
Incompatible materials	:	Oxidizing agents
Hazardous decomposition products	:	Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects

Aggravated Medical Condition	:	None known.
Symptoms of Overexposure	:	Effects are dependent on exposure (dose, concentration, contact time). Effects are immediate and delayed.

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Symptoms may include irritation, redness, pain, and rash.
Causes serious eye irritation.
Treat symptomatically. Symptoms may be delayed.

Carcinogenicity:

IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg
Method: Calculation method

Components:

Alcohols, C9-11, ethoxylated:

Acute oral toxicity : LD50 Oral Rat: 1,400 mg/kg

Skin corrosion/irritation

Product:

Remarks: May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation

Product:

Remarks: Irritating to eyes.

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

STOT - single exposure

No data available

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STOT - repeated exposure

No data available

Aspiration toxicity

No data available

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

Product:

Partition coefficient: n-octanol/water : Remarks: No data available

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Regulation 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with local regulations.

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Do not contaminate ponds, waterways or ditches with chemical or used container.
Do not dispose of waste into sewer.

- Contaminated packaging :
Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

Transportation Regulation: 49 CFR (USA):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: IMDG (Vessel):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: IATA (Cargo Air):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: IATA (Passenger Air):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: TDG (Canada):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

The product as delivered to the customer conforms to packaging requirements for shipment by road under US Department of Transportation (DOT) regulations. Additional transportation classifications noted above are for reference only, and not a certification or warranty of the suitability of the packaging for shipment under these alternative transport regulations.

SECTION 15. REGULATORY INFORMATION

TSCA list : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
sodium hydroxide	1310-73-2	1000	*

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*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Serious eye damage or eye irritation

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

TSCA On TSCA Inventory
DSL All components of this product are on the Canadian DSL

For information on the country notification status for other regions please contact the manufacturer's regulatory group.

Inventory Acronym and Validity Area Legend:

TSCA (USA), DSL (Canada), NDSL (Canada)

SECTION 16. OTHER INFORMATION

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Further information

NFPA:

HEALTH	2
FLAMMABILITY	0
INSTABILITY	0
SPECIAL HAZARD.	

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme

HMIS III:

HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

OSHA - GHS Label Information:

Hazard pictograms :



Exclamation mark

Signal word

: **Warning:**

Hazard statements

: Causes serious eye irritation.

Precautionary statements

: **Prevention:** Wash skin thoroughly after handling. Wear eye protection/ face protection.

Response: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/ attention.

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SAFETY DATA SHEET



TruFuel 50:1 Mix

Section 1. Identification

GHS product identifier : TruFuel 50:1 Mix

Product code : 0125600

Other means of identification : Not available.

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Consumer products: Fuel.
Industrial applications: Fuel.

Uses advised against	Reason
Not available.	

Supplier's details : Calumet Packaging
10411 Highway 1
Shreveport, LA 71115 USA
318-795-3800

Emergency telephone number (with hours of operation) : 24 hr. CHEMTRAC 1-800-424-9300 / International 1-703-527-3887

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 1
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 1B
TOXIC TO REPRODUCTION (Fertility) - Category 2
TOXIC TO REPRODUCTION (Unborn child) - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1
AQUATIC HAZARD (ACUTE) - Category 3
AQUATIC HAZARD (LONG-TERM) - Category 3
Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 11.8%

GHS label elements

Hazard pictograms



Signal word

: Danger

Section 2. Hazards identification

Hazard statements	: Extremely flammable liquid and vapor. Causes serious eye irritation. Causes skin irritation. May cause cancer. Suspected of damaging fertility or the unborn child. May be fatal if swallowed and enters airways. May cause drowsiness and dizziness. May cause damage to organs through prolonged or repeated exposure. Harmful to aquatic life with long lasting effects.
<u>Precautionary statements</u>	
General	: Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
Prevention	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Do not breathe vapor. Wash hands thoroughly after handling.
Response	: Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
Storage	: Store locked up. Store in a well-ventilated place. Keep cool.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	: Avoid contact with skin and clothing. Wash thoroughly after handling.
Hazards not otherwise classified	: Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture																											
Other means of identification	: Not available.																											
<u>CAS number/other identifiers</u>																												
CAS number	: Not applicable.																											
<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Naphtha (petroleum), full-range alkylate, butane-contg.</td> <td>≥50 - <75</td> <td>68527-27-5</td> </tr> <tr> <td>pentane</td> <td>≥10 - <25</td> <td>109-66-0</td> </tr> <tr> <td>toluene</td> <td>≥6 - <10</td> <td>108-88-3</td> </tr> <tr> <td>xylene</td> <td>≥5 - <9.8</td> <td>1330-20-7</td> </tr> <tr> <td>ethylbenzene</td> <td>≥1 - <1.8</td> <td>100-41-4</td> </tr> <tr> <td>Naphtha (petroleum), hydrotreated light</td> <td>≥0.3 - <1</td> <td>64742-49-0</td> </tr> <tr> <td>Distillates (petroleum), sweetened middle</td> <td>≥0.1 - <0.3</td> <td>64741-86-2</td> </tr> <tr> <td>n-hexane</td> <td>≥0.1 - <0.3</td> <td>110-54-3</td> </tr> </tbody> </table>		Ingredient name	%	CAS number	Naphtha (petroleum), full-range alkylate, butane-contg.	≥50 - <75	68527-27-5	pentane	≥10 - <25	109-66-0	toluene	≥6 - <10	108-88-3	xylene	≥5 - <9.8	1330-20-7	ethylbenzene	≥1 - <1.8	100-41-4	Naphtha (petroleum), hydrotreated light	≥0.3 - <1	64742-49-0	Distillates (petroleum), sweetened middle	≥0.1 - <0.3	64741-86-2	n-hexane	≥0.1 - <0.3	110-54-3
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n-hexane	≥0.1 - <0.3	110-54-3																										

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Section 3. Composition/information on ingredients

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- | | |
|---------------------|--|
| Eye contact | : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention. |
| Inhalation | : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| Skin contact | : Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse. |
| Ingestion | : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |

Most important symptoms/effects, acute and delayed

Potential acute health effects

- | | |
|---------------------|--|
| Eye contact | : Causes serious eye irritation. |
| Inhalation | : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. |
| Skin contact | : Causes skin irritation. Defatting to the skin. |
| Ingestion | : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways. |

Over-exposure signs/symptoms

- | | |
|--------------------|---|
| Eye contact | : Adverse symptoms may include the following:
pain or irritation
watering
redness |
| Inhalation | : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations |

Section 4. First aid measures

- | | |
|---------------------|---|
| Skin contact | : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations |
| Ingestion | : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations |

Indication of immediate medical attention and special treatment needed, if necessary

- | | |
|-----------------------------------|---|
| Notes to physician | : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| Specific treatments | : No specific treatment. |
| Protection of first-aiders | : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. |

See toxicological information (Section 11)

Section 5. Fire-fighting measures

- | | |
|---|---|
| Extinguishing media | |
| Suitable extinguishing media | : Use dry chemical, CO ₂ , water spray (fog) or foam. |
| Unsuitable extinguishing media | : Do not use water jet. |
| Specific hazards arising from the chemical | |
| Hazardous thermal decomposition products | : Extremely flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

: Decomposition products may include the following materials:
carbon dioxide
carbon monoxide |
| Special protective actions for fire-fighters | |
| Special protective equipment for fire-fighters | : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- | | |
|------------------------------------|--|
| For non-emergency personnel | : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
|------------------------------------|--|

Section 6. Accidental release measures

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

- | | |
|--------------------|--|
| Small spill | : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. |
| Large spill | : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. |

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Naphtha (petroleum), full-range alkylate, butane-contg.	ACGIH TLV (United States). TWA: 200 ppm 8 hours. ACGIH TLV (United States, 4/2014). TWA: 1000 ppm 8 hours. OSHA PEL (United States, 2/2013). TWA: 1000 ppm 8 hours. TWA: 2950 mg/m ³ 8 hours. OSHA PEL 1989 (United States, 3/1989). TWA: 600 ppm 8 hours. TWA: 1800 mg/m ³ 8 hours. STEL: 750 ppm 15 minutes. STEL: 2250 mg/m ³ 15 minutes. NIOSH REL (United States, 10/2013). TWA: 120 ppm 10 hours. TWA: 350 mg/m ³ 10 hours. CEIL: 610 ppm 15 minutes. CEIL: 1800 mg/m ³ 15 minutes.
pentane	ACGIH TLV (United States, 4/2014). TWA: 20 ppm 8 hours. OSHA PEL Z2 (United States, 2/2013). TWA: 200 ppm 8 hours. CEIL: 300 ppm AMP: 500 ppm 10 minutes. OSHA PEL 1989 (United States, 3/1989). TWA: 100 ppm 8 hours. TWA: 375 mg/m ³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m ³ 15 minutes. NIOSH REL (United States, 10/2013). TWA: 100 ppm 10 hours. TWA: 375 mg/m ³ 10 hours. STEL: 150 ppm 15 minutes. STEL: 560 mg/m ³ 15 minutes.
toluene	ACGIH TLV (United States, 4/2014). TWA: 100 ppm 8 hours. TWA: 434 mg/m ³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m ³ 15 minutes. OSHA PEL (United States, 2/2013). TWA: 100 ppm 8 hours. TWA: 435 mg/m ³ 8 hours. OSHA PEL 1989 (United States, 3/1989). TWA: 100 ppm 8 hours. TWA: 435 mg/m ³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 655 mg/m ³ 15 minutes. ACGIH TLV (United States, 4/2014). TWA: 20 ppm 8 hours. OSHA PEL (United States, 2/2013). TWA: 100 ppm 8 hours. TWA: 435 mg/m ³ 8 hours. OSHA PEL 1989 (United States, 3/1989). TWA: 100 ppm 8 hours. TWA: 435 mg/m ³ 8 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m ³ 15 minutes. NIOSH REL (United States, 10/2013). TWA: 100 ppm 10 hours.
xylene	
ethylbenzene	

Section 8. Exposure controls/personal protection

Naphtha (petroleum), hydrotreated light	TWA: 435 mg/m ³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m ³ 15 minutes. OSHA PEL (United States). TWA: 500 ppm 8 hours. TWA: 1800 mg/m ³ 8 hours. ACGIH TLV (United States). TWA: 50 ppm 8 hours. ACGIH TLV (United States). TWA: 200 ppm 8 hours. ACGIH TLV (United States, 4/2014). Absorbed through skin. TWA: 50 ppm 8 hours. OSHA PEL (United States, 2/2013). TWA: 500 ppm 8 hours. TWA: 1800 mg/m ³ 8 hours. OSHA PEL 1989 (United States, 3/1989). TWA: 50 ppm 8 hours. TWA: 180 mg/m ³ 8 hours. NIOSH REL (United States, 10/2013). TWA: 50 ppm 10 hours. TWA: 180 mg/m ³ 10 hours.
Distillates (petroleum), sweetened middle	
n-hexane	

- Appropriate engineering controls**
- : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls**
- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

- Hygiene measures**
- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection**
- : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection**
- : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection**
- : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection**
- : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Section 8. Exposure controls/personal protection

- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state	: Liquid. [Mobile liquid.]
Color	: Red.
Odor	: Characteristic. Hydrocarbon.
Odor threshold	: Not available.
pH	: Not available.
Melting point	: Not available.
Boiling point	: 34.444 to 190.56°C (94 to 375°F)
Flash point	: Closed cup: -40°C (-40°F) [Tagliabue.]
Evaporation rate	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: 0.72
Solubility	: Insoluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Kinematic (40°C (104°F)): <0.01 cm ² /s (<1 cSt)

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Naphtha (petroleum), full-range alkylate, butane-contg. pentane toluene	LD50 Oral LC50 Inhalation Vapor LC50 Inhalation Vapor	Rat Rat Rat	>5000 mg/kg 364 g/m ³ 49 g/m ³	- 4 hours 4 hours
xylene	LD50 Oral LC50 Inhalation Gas.	Rat Rat	636 mg/kg 5000 ppm	- 4 hours
ethylbenzene	LD50 Oral LC50 Inhalation Gas. LD50 Dermal	Rat Rat Rabbit	4300 mg/kg 4000 ppm >5000 mg/kg	- 4 hours -
Naphtha (petroleum), hydrotreated light	LD50 Oral LC50 Inhalation Vapor	Rat Rat	3500 mg/kg >5.2 mg/l	- 4 hours
Distillates (petroleum), sweetened middle	LD50 Dermal LD50 Oral LC50 Inhalation Dusts and mists	Rat Rat Rat	>2000 mg/kg >5000 mg/kg 4.6 mg/l	- - 4 hours
n-hexane	LD50 Dermal LD50 Oral LC50 Inhalation Gas. LD50 Oral	Rabbit Rat Rat Rat	>2000 mg/kg >5000 mg/kg 48000 ppm 15840 mg/kg	- - 4 hours -

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 milligrams	-
	Eyes - Mild irritant	Rabbit	-	870 Micrograms	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
	Skin - Mild irritant	Pig	-	24 hours 250 microliters	-
	Skin - Mild irritant	Rabbit	-	435 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Skin - Moderate irritant	Rabbit	-	500 milligrams	-
xylene	Eyes - Mild irritant	Rabbit	-	87 milligrams	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 milligrams	-
	Skin - Mild irritant	Rat	-	8 hours 60 microliters	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
ethylbenzene	Skin - Moderate irritant	Rabbit	-	100 Percent	-
	Eyes - Severe irritant	Rabbit	-	500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 milligrams	-
Naphtha (petroleum), hydrotreated light	Eyes - Mild irritant	Rabbit	-	10 milligrams	-
n-hexane	Eyes - Mild irritant	Rabbit	-	10 milligrams	-

Sensitization

Not available.

Mutagenicity

Section 11. Toxicological information

Not available.

Carcinogenicity

Not available.

Conclusion/Summary : Animal tumorigen. May cause tumors.

Classification

Product/ingredient name	OSHA	IARC	NTP
toluene	-	3	-
xylene	-	3	-
ethylbenzene	-	2B	-

Reproductive toxicity

Not available.

Conclusion/Summary : Reproductive toxicant - female Suspected of damaging the unborn child if inhaled.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Naphtha (petroleum), full-range alkylate, butane-contg. pentane toluene	Category 3	Not applicable.	Narcotic effects
xylene	Category 3	Not applicable.	Narcotic effects
ethylbenzene	Category 3	Not applicable.	Narcotic effects
Naphtha (petroleum), hydrotreated light n-hexane	Category 3	Not applicable.	Narcotic effects
	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
toluene	Category 2	Not determined	kidneys and liver
ethylbenzene	Category 2	Not determined	ears
Distillates (petroleum), sweetened middle	Category 2	Not determined	blood system, liver and thymus
n-hexane	Category 2	Not determined	peripheral nervous system

Aspiration hazard

Name	Result
Naphtha (petroleum), full-range alkylate, butane-contg.	ASPIRATION HAZARD - Category 1
pentane	ASPIRATION HAZARD - Category 1
toluene	ASPIRATION HAZARD - Category 1
xylene	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1
Naphtha (petroleum), hydrotreated light	ASPIRATION HAZARD - Category 1
Distillates (petroleum), sweetened middle	ASPIRATION HAZARD - Category 1
n-hexane	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Section 11. Toxicological information

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness.
- Skin contact** : Causes skin irritation. Defatting to the skin.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.

- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.

- Potential delayed effects** : Not available.

Potential chronic health effects

Not available.

- General** : May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
- Carcinogenicity** : May cause cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : Suspected of damaging the unborn child.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : Suspected of damaging fertility.

Section 11. Toxicological information

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	5728.6 mg/kg
Dermal	11934.8 mg/kg
Inhalation (gases)	44920.8 ppm

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
toluene	Acute EC50 12500 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 11600 µg/l Fresh water	Crustaceans - Gammarus pseudolimnaeus - Adult	48 hours
	Acute EC50 6000 µg/l Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
xylene	Acute LC50 5500 µg/l Fresh water	Fish - Oncorhynchus kisutch - Fry	96 hours
	Chronic NOEC 1000 µg/l Fresh water	Daphnia - Daphnia magna	21 days
	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
ethylbenzene	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute EC50 4600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 3600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
Naphtha (petroleum), hydrotreated light	Acute EC50 6530 µg/l Fresh water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute EC50 2930 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 4200 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Distillates (petroleum), sweetened middle	Acute EC50 1 to 10 mg/l	Algae	72 hours
	Acute EC50 1 to 10 mg/l	Daphnia	48 hours
	Acute LC50 1 to 10 mg/l	Fish	96 hours
n-hexane	Chronic EC50 2 to 100 mg/l	Algae	72 hours
	Chronic EC50 2 to 100 mg/l	Crustaceans	48 hours
	Acute LC50 2500 µg/l Fresh water	Fish - Pimephales promelas	96 hours

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
ethylbenzene	301B Ready Biodegradability - CO ₂ Evolution Test	70 to 80 % - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
toluene	-	-	Readily
xylene	-	-	Readily
ethylbenzene	-	-	Readily
Naphtha (petroleum), hydrotreated light	-	-	Inherent
Distillates (petroleum), sweetened middle	-	-	Not readily

Section 12. Ecological information

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Naphtha (petroleum), full-range alkylate, butane-contg. pentane	-	10 to 2500	high
toluene	3.45	171	low
xylene	2.73	90	low
ethylbenzene	3.12	8.1 to 25.9	low
Naphtha (petroleum), hydrotreated light	3.6	-	low
Distillates (petroleum), sweetened middle	2.2 to 5.2	10 to 2500	high
n-hexane	≥4	-	high
	4	501.187	high

Mobility in soil

Soil/water partition coefficient (K_{oc})

: Not available.

Other adverse effects

: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

RCRA classification

: D001 [Flammable]

United States - RCRA Toxic hazardous waste "U" List

Ingredient	CAS #	Status	Reference number
Xylene	1330-20-7	Listed	U239
Toluene; Benzene, methyl-	108-88-3	Listed	U220

Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	UN1203	UN1203	UN1203	UN1203
UN proper shipping name	Gasoline	Gasoline	GASOLINE	Gasoline
Transport hazard class(es)	3 	3 	3 	3 

Section 14. Transport information

Packing group	II	I	II	II
Environmental hazards	No.	No.	No.	No.
Additional information	<p>Limited quantity Yes.</p> <p>Packaging instruction Passenger aircraft Quantity limitation: 5 L</p> <p>Cargo aircraft Quantity limitation: 60 L</p> <p>Special provisions 144, 177, B1, B33, IB2, T8</p> <p>Remarks May be classed as a Consumer Commodity, ORM-D for Small Packages, see 49CFR 173.150</p>	-	<p>Emergency schedules (EmS) F-E, S-E</p> <p>Special provisions 243</p>	<p>Passenger and Cargo Aircraft Quantity limitation: 5 L Packaging instructions: 353</p> <p>Cargo Aircraft Only Quantity limitation: 60 L Packaging instructions: 364</p> <p>Limited Quantities - Passenger Aircraft Quantity limitation: 1 L Packaging instructions: Y341</p> <p>Special provisions A100</p>

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations	<p>TSCA 8(a) PAIR: pentane</p> <p>TSCA 8(a) CDR Exempt/Partial exemption: Not determined</p> <p>All components are listed or exempted.</p> <p>Clean Water Act (CWA) 307: ethylbenzene; toluene</p> <p>Clean Water Act (CWA) 311: xylene; ethylbenzene; toluene</p> <p>Clean Air Act (CAA) 112 regulated flammable substances: isopentane; pentane</p>
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	: Listed
Clean Air Act Section 602 Class I Substances	: Not listed
Clean Air Act Section 602 Class II Substances	: Not listed
DEA List I Chemicals (Precursor Chemicals)	: Not listed
DEA List II Chemicals (Essential Chemicals)	: Listed
SARA 302/304	
Composition/information on ingredients	No products were found.

Section 15. Regulatory information

SARA 304 RQ

: Not applicable.

SARA 311/312

Classification

: Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Naphtha (petroleum), full-range alkylate, butane-contg.	≥50 - <75	Yes.	No.	No.	Yes.	No.
pentane	≥10 - <25	Yes.	No.	No.	Yes.	No.
toluene	≥6 - <10	Yes.	No.	No.	Yes.	Yes.
xylene	≥5 - <9.8	Yes.	No.	No.	Yes.	Yes.
ethylbenzene	≥1 - <1.8	Yes.	No.	No.	Yes.	Yes.
Naphtha (petroleum), hydrotreated light	≥0.3 - <1	Yes.	No.	No.	Yes.	Yes.
Distillates (petroleum), sweetened middle	≥0.1 - <0.3	Yes.	No.	No.	Yes.	Yes.
n-hexane	≥0.1 - <0.3	Yes.	No.	No.	Yes.	Yes.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	toluene xylene ethylbenzene	108-88-3 1330-20-7 100-41-4	≥6 - <10 ≥5 - <9.8 ≥1 - <1.8
Supplier notification	toluene xylene ethylbenzene	108-88-3 1330-20-7 100-41-4	≥6 - <10 ≥5 - <9.8 ≥1 - <1.8

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts

: The following components are listed: XYLENE; ETHYL BENZENE; TOLUENE; ISOPENTANE; PENTANE

New York

: The following components are listed: Xylene (mixed); Ethylbenzene; Toluene

New Jersey

: The following components are listed: XYLENES; BENZENE, DIMETHYL-; ETHYL BENZENE; BENZENE, ETHYL-; TOLUENE; BENZENE, METHYL-; ISOPENTANE; BUTANE, 2-METHYL-; PENTANE

Pennsylvania

: The following components are listed: BENZENE, DIMETHYL-; BENZENE, ETHYL-; BENZENE, METHYL-; BUTANE, 2-METHYL-; PENTANE

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
toluene	No.	Yes.	No.	7000 µg/day (ingestion)
ethylbenzene	Yes.	No.	41 µg/day (ingestion) 54 µg/day (inhalation)	No.

International lists

National inventory

Australia

: All components are listed or exempted.

Section 15. Regulatory information

Canada	: All components are listed or exempted.
China	: Not determined.
Europe	: All components are listed or exempted.
Japan	: Not determined.
Malaysia	: Not determined.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: All components are listed or exempted.
Taiwan	: All components are listed or exempted.

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
Flam. Liq. 1, H224	On basis of test data
Skin Irrit. 2, H315	Calculation method
Eye Irrit. 2A, H319	Calculation method
Carc. 1B, H350	Calculation method
Repr. 2, H361 (Fertility)	Calculation method
Repr. 2, H361 (Unborn child)	Calculation method
STOT SE 3, H336	Calculation method
STOT RE 2, H373	Calculation method
Asp. Tox. 1, H304	Calculation method
Aquatic Acute 3, H402	Calculation method
Aquatic Chronic 3, H412	Calculation method

History

Date of issue/Date of revision	: 04/02/2015
Version	: 0.02
Key to abbreviations	<p>: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations</p>

 Indicates information that has changed from previously issued version.

Notice to reader

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.