SAFETY DATA SHEET

COMPRO 600 EC

Version	Revision Date:	SDS Number:	Date of last issue: 09/01/2021
1.1	09/02/2021	50001576	Date of first issue: 09/01/2021

SECTION 1. IDENTIFICATION

Product identifier
Product name COMPRO 600 EC

Other means of identification
Product code 50001576

Recommended use of the chemical and restrictions on use
Recommended use Can be used as herbicide only.

Restrictions on use Use as recommended by the label.

Manufacturer or supplier's details
Manufacturer FMC Corporation
2929 WALNUT ST
PHILADELPHIA PA, 19104
Telephone: +1 (215) 299-6000
Emergency telephone SDS-Info@fmc.com

For leak, fire, spill or accident emergencies, call:
1 703 / 741-5970 (CHEMTREC - International)
1 703 / 527-3887 (CHEMTREC - Alternate)

Medical emergency:
All other countries: +1 651 / 632-6793 (Collect)

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids : Category 3

Acute toxicity (Inhalation) : Category 4

GHS label elements

Hazard pictograms :

Signal Word : Warning

Hazard Statements : H226 Flammable liquid and vapor.
H332 Harmful if inhaled.

Precautionary Statements :

Prevention:

P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.

P233 Keep container tightly closed.
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.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ eye protection/ face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

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

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
2-[(2-Chlorophenyl)methyl]-4,4-dimethyl-3-isoxazolidinone	81777-89-1	>= 10 - < 20
cyclohexanone	108-94-1	>= 10 - < 20
Solvent naphtha (petroleum), light arom.	64742-95-6	>= 10 - < 20
dodecylbenzenesulphonic acid, compound with 2,2'-iminodiethanol (1:1)	26545-53-9	>= 10 - < 20
Benzenesulfonic acid, dodecyl-, compd. with (Z)-.alpha.,.alpha.'-[(9-octadecenylimino)di-2,1-ethanediyl]bis[.omega.-hydroxypoly(oxy-1,2-ethanediyl)] (1:1)	66467-20-7	>= 1 - < 5
2-butoxyethanol	111-76-2	>= 1 - < 5

Actual concentration is withheld as a trade secret

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	:	Consult a physician after significant exposure. If unconscious, place in recovery position and seek medical advice.
In case of skin contact	:	If on skin, rinse well with water. If on clothes, remove clothes.
In case of eye contact	:	Flush eyes with water as a precaution. 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. 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	:	Harmful if inhaled.
Notes to physician	:	Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire fighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	Thermal decomposition can lead to release of irritating gases and vapors. Nitrogen oxides (NOx) Carbon oxides Chlorine compounds
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. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.

Special protective equipment for fire-fighters	:	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. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors 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.
Methods and materials for containment and cleaning up	:	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).

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Keep away from open flames, hot surfaces and sources of ignition.
Advice on safe handling	:	Avoid formation of aerosol. Do not breathe vapors/dust. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations.
Conditions for safe storage	:	No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.
Further information on storage stability	:	No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
cyclohexanone	108-94-1	TWA	20 ppm	ACGIH
		STEL	50 ppm	ACGIH
		TWA	25 ppm 100 mg/m3	NIOSH REL
		TWA	50 ppm 200 mg/m3	OSHA Z-1
		TWA	25 ppm 100 mg/m3	OSHA P0
Solvent naphtha (petroleum), light arom.	64742-95-6	TWA	500 ppm 2,000 mg/m3	OSHA Z-1
		TWA	200 mg/m3 (total hydrocarbon vapor)	ACGIH
		TWA	400 ppm 1,600 mg/m3	OSHA P0
2-butoxyethanol	111-76-2	TWA	20 ppm	ACGIH
		TWA	5 ppm 24 mg/m3	NIOSH REL
		TWA	50 ppm 240 mg/m3	OSHA Z-1
		TWA	25 ppm 120 mg/m3	OSHA P0

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
cyclohexanone	108-94-1	1,2-Cyclohexanediol	Urine	End of shift at end of work-week	80 mg/l	ACGIH BEI
		Cyclohexanol	Urine	End of shift (As soon as possible after exposure ceases)	8 mg/l	ACGIH BEI
2-butoxyethanol	111-76-2	Butoxyacetic acid (BAA)	Urine	End of shift (As soon as possible after exposure ceases)	200 mg/g Creatinine	ACGIH BEI

Personal protective equipment

Respiratory protection	:	In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.
Remarks	:	The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection	:	Eye wash bottle with pure water Tightly fitting safety goggles
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	:	viscous
Color	:	dark, brown
Odor	:	mild, aromatic
pH	:	5.5
Flash point	:	140 °F / 60 °C
Density	:	1.13 g/cm3 (68 °F / 20 °C)
Solubility(ies)		
Water solubility	:	emulsifiable

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	No decomposition if stored and applied as directed. Vapors may form explosive mixture with air.
Conditions to avoid	:	Heat, flames and sparks.
Incompatible materials	:	Strong acids Strong oxidizing agents Strong bases

Hazardous decomposition products	:	Stable under recommended storage conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Harmful if inhaled.

Product:

Acute oral toxicity	:	Acute toxicity estimate: 2,013 mg/kg Method: Calculation method
Acute inhalation toxicity	:	LC50 (Rat): 3.77 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Remarks: Based on data from similar materials
Acute dermal toxicity	:	LD50 (Rat, male and female): > 2,000 mg/kg Method: OECD Test Guideline 402 Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation

Not classified based on available information.

Product:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	No skin irritation
Remarks	:	Based on data from similar materials

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Species	:	Rabbit
Result	:	No eye irritation
Method	:	OECD Test Guideline 405

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Product:

Test Type	:	Magnussen-Kligman test
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Not a skin sensitizer.
Remarks	:	Based on data from similar materials

Germ cell mutagenicity

Not classified based on available information.

Components:

2-[(2-Chlorophenyl)methyl]-4,4-dimethyl-3-isoxazolidinone:

Genotoxicity in vitro	:	Test system: Chinese hamster ovary cells Method: OECD Test Guideline 476 Result: negative
Germ cell mutagenicity - Assessment	:	In vitro tests did not show mutagenic effects

cyclohexanone:

Genotoxicity in vitro	:	Test Type: in vitro DNA damage and/or repair study Test system: human diploid fibroblasts Method: OECD Test Guideline 482 Result: negative Test Type: reverse mutation assay Method: OECD Test Guideline 471 Result: negative Test Type: In vitro mammalian cell gene mutation test Method: OECD Test Guideline 476 Result: negative
Genotoxicity in vivo	:	Test Type: chromosome aberration assay Species: Rat (male and female) Application Route: inhalation (vapor) Method: OECD Test Guideline 475 Result: negative Test Type: dominant lethal test Species: Rat (male and female) Application Route: inhalation (vapor) Method: OECD Test Guideline 478 Result: negative Species: Drosophila melanogaster (vinegar fly) (male and female) Application Route: Inhalation Method: OECD Test Guideline 477 Result: negative
Germ cell mutagenicity -	:	Weight of evidence does not support classification as a germ

Assessment cell mutagen.

Solvent naphtha (petroleum), light arom.:

Genotoxicity in vitro : Test Type: in vitro DNA damage and/or repair study
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Result: negative

Test Type: reverse mutation assay
Metabolic activation: with and without metabolic activation
Result: negative

Genotoxicity in vivo : Test Type: Bone marrow chromosome aberration
Species: Rat (male and female)
Application Route: Inhalation
Result: negative

dodecylbenzenesulphonic acid, compound with 2,2'-iminodiethanol (1:1):

Genotoxicity in vitro : Test Type: Ames test
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse
Application Route: Intraperitoneal injection
Result: negative
Remarks: Based on data from similar materials

Benzenesulfonic acid, dodecyl-, compd. with (Z)-.alpha.,.alpha.'-[(9-octadecenylimino)di-2,1-ethanediyl]bis[.omega.-hydroxypoly(oxy-1,2-ethanediyl)] (1:1)**:**

Genotoxicity in vitro : Test Type: reverse mutation assay
Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay)
Result: negative
Remarks: Based on data from similar materials

Test Type: gene mutation test
Test system: Chinese hamster ovary cells
Result: negative
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Rodent Dominant Lethal Assay
Species: Mouse (male)
Result: negative
Remarks: Based on data from similar materials

2-butoxyethanol:

Genotoxicity in vitro : Test Type: reverse mutation assay
Result: negative

Test Type: Chromosome aberration test in vitro
Result: negative

Test Type: gene mutation test
Result: negative

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Species: Rat (male)
Application Route: Intraperitoneal injection
Result: negative

Germ cell mutagenicity - Assessment : Weight of evidence does not support classification as a germ cell mutagen.

Carcinogenicity

Not classified based on available information.

Components:

2-[(2-Chlorophenyl)methyl]-4,4-dimethyl-3-isoxazolidinone:

Species : Rat
Method : OECD Test Guideline 453
Result : negative

Species : Mouse
Method : OECD Test Guideline 453
Result : negative

Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.

cyclohexanone:

Species : Rat
Application Route : Oral
Exposure time : 104 weeks
Dose : (462 and 910 mg/kg/d
LOAEL : 3,300 ppm
Result : positive

Carcinogenicity - Assessment : Weight of evidence does not support classification as a carcinogen

2-butoxyethanol:

Species : Mouse, male
Application Route : inhalation (vapor)
Exposure time : 2 Years
Dose : 0, 62.5, 125, 250 ppm
: 125 ppm
: 250 ppm
Result : negative

Species : Mouse, female
Application Route : inhalation (vapor)

Exposure time	:	2 Years
Dose	:	0, 62.5, 125, 250 ppm
	:	125 ppm
	:	250 ppm
Result	:	negative

Carcinogenicity - Assessment	:	Weight of evidence does not support classification as a carcinogen

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.

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 ingredient 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:

2-[(2-Chlorophenyl)methyl]-4,4-dimethyl-3-isoxazolidinone:

Reproductive toxicity - Assessment	:	Weight of evidence does not support classification for reproductive toxicity

cyclohexanone:

Effects on fertility	:	Test Type: Two-generation study Species: Rat Application Route: inhalation (vapor) Dose: 1.02, 2.04, 4.1 mg/l General Toxicity Parent: NOAEC: 4.1 mg/l General Toxicity F1: NOAEC: 2.04 mg/l General Toxicity F2: NOAEC: 2.04 mg/l Result: negative
Effects on fetal development	:	Species: Rabbit Application Route: Oral Dose: 50, 250, 500 mg/kg b.w. General Toxicity Maternal: NOAEL: 250 mg/kg body weight Teratogenicity: NOAEL: 500 mg/kg body weight Method: OECD Test Guideline 414 Result: No teratogenic effects.
Reproductive toxicity - Assessment	:	Animal testing did not show any effects on fertility.

Solvent naphtha (petroleum), light arom.:

Effects on fertility	:	Test Type: Three-generation study Species: Rat Application Route: inhalation (vapor)

Fertility: NOAEC Mating/Fertility: 7.5 mg/l
Result: negative
Remarks: Based on data from similar materials

Effects on fetal development : Species: Mouse
Application Route: inhalation (vapor)
General Toxicity Maternal: LOAEC: 500 part per million
Symptoms: Maternal effects.

2-butoxyethanol:

Effects on fertility : Species: Mouse, male and female
Application Route: Oral
Dose: 720, 1340, 2050 mg/kg bw/day
General Toxicity Parent: LOAEL: 720 mg/kg bw/day
General Toxicity F1: LOAEL: 1,340 mg/kg bw/day
General Toxicity F2: LOAEL: 1,340 mg/kg bw/day
Result: negative

Effects on fetal development : Test Type: reproductive and developmental toxicity study
Species: Rat
Application Route: Oral
Dose: 0, 30, 100, 200 300, mg/kgbw
General Toxicity Maternal: LOAEL: 100 mg/kg bw/day
Embryo-fetal toxicity.: LOAEC F1: 300 mg/kg bw/day
Result: negative

Reproductive toxicity - Assessment : Weight of evidence does not support classification for reproductive toxicity

STOT-single exposure

Not classified based on available information.

Components:

Solvent naphtha (petroleum), light arom.:

Assessment : May cause respiratory irritation., May cause drowsiness or dizziness.

2-butoxyethanol:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT-repeated exposure

Not classified based on available information.

Components:

cyclohexanone:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Solvent naphtha (petroleum), light arom.:

Assessment	:	The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Components:

2-[(2-Chlorophenyl)methyl]-4,4-dimethyl-3-isoxazolidinone:

Species	:	Rat
LOAEL	:	400 mg/kg
Exposure time	:	90 d
Method	:	OECD Test Guideline 408
Symptoms	:	Liver effects

cyclohexanone:

Species	:	Rat, male and female
NOAEL	:	143 mg/kg
Application Route	:	Oral
Exposure time	:	90 d
Dose	:	40, 143 and 407 mg/kg b.w.
Method	:	OECD Test Guideline 408

Solvent naphtha (petroleum), light arom.:

Species	:	Rat, male and female
	:	0.8 - 0.9 mg/l
Application Route	:	Inhalation
Test atmosphere	:	vapor
Remarks	:	Based on data from similar materials

Species	:	Rat, male
NOAEL	:	600 mg/kg
Application Route	:	Oral
Remarks	:	Based on data from similar materials

dodecylbenzenesulphonic acid, compound with 2,2'-iminodiethanol (1:1):

Species	:	Rat, male and female
NOAEL	:	100 mg/kg
LOAEL	:	200 mg/kg
Application Route	:	Oral - gavage
Exposure time	:	43 days
Method	:	OECD Test Guideline 422
Remarks	:	Based on data from similar materials

Benzenesulfonic acid, dodecyl-, compd. with (Z)-.alpha.,.alpha.'-[(9-octadecenylimino)di-2,1-ethanediyl]bis[.omega.-hydroxypoly(oxy-1,2-ethanediyl)] (1:1)**:**

Species	:	Rat, male and female
NOAEL	:	300 mg/kg bw/day
Application Route	:	Oral - feed
Exposure time	:	>75 days
Remarks	:	Based on data from similar materials

2-butoxyethanol:

Species	:	Rat, male
NOAEL	:	< 69 mg/kg bw/day
Application Route	:	Oral
Exposure time	:	90 d

Species	:	Rat, male and female
LOAEL	:	31 ppm
Application Route	:	Inhalation
Test atmosphere	:	vapor
Exposure time	:	2 years

Species	:	Rabbit, male and female
NOAEL	:	
NOAEL	:	>150 mg/kg bw/day
Exposure time	:	90 d

Aspiration toxicity

Not classified based on available information.

Product:

No aspiration toxicity classification

Further information

Product:

Remarks	:	Solvents may degrease the skin.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

2-[(2-Chlorophenyl)methyl]-4,4-dimethyl-3-isoxazolidinone:

Toxicity to fish	:	LC50 (Menidia beryllina (Silverside)): 6.3 mg/l Exposure time: 96 h LC50 (Oncorhynchus mykiss (rainbow trout)): 19 mg/l Exposure time: 96 h LC50 (Lepomis macrochirus (Bluegill sunfish)): 34 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia): 5.2 mg/l Exposure time: 48 h EC50 (Daphnia magna (Water flea)): 40.8 mg/l

Exposure time: 48 h

LC50 (Mysidopsis bahia (opossum shrimp)): 0.57 mg/l
Exposure time: 96 h

LC50 (Crustaceans): 5.3 mg/l
Exposure time: 96 h

Toxicity to algae/aquatic plants : EbC50 (Selenastrum capricornutum (green algae)): 2 mg/l
Exposure time: 72 h

ErC50 (Selenastrum capricornutum (green algae)): 4.1 mg/l
Exposure time: 72 h

EbC50 (Navicula pelliculosa (Freshwater diatom)): 0.136 mg/l
Exposure time: 72 h

ErC50 (Navicula pelliculosa (Freshwater diatom)): > 0.185 mg/l
Exposure time: 72 h

EC50 (Lemna gibba (duckweed)): 13.9 mg/l
Exposure time: 7 d

NOEC (algae): 0.05 mg/l
Exposure time: 96 h

Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): 2.29 mg/l
Exposure time: 57 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 2.2 mg/l
Exposure time: 21 d

Toxicity to soil dwelling organisms : LC50 (Eisenia fetida (earthworms)): 78 mg/kg
Exposure time: 14 d

Toxicity to terrestrial organisms : LD50 (Anas platyrhynchos (Mallard duck)): > 2,510 mg/kg

LC50 (Anas platyrhynchos (Mallard duck)): >5620 ppm

LC50 (Apis mellifera (bees)): >85.29

LC50 (Apis mellifera (bees)): >100
Remarks: Contact

Persistence and degradability

Components:

2-[(2-Chlorophenyl)methyl]-4,4-dimethyl-3-isoxazolidinone:

Biodegradability : Result: Not readily biodegradable.

cyclohexanone:

Biodegradability : Result: Readily biodegradable.
Method: OECD Test Guideline 301F

Solvent naphtha (petroleum), light arom.:

Biodegradability : Concentration: 49.2 mg/l
Result: Inherently biodegradable.
Biodegradation: 77.05 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

dodecylbenzenesulphonic acid, compound with 2,2'-iminodiethanol (1:1):

Biodegradability : Result: Readily biodegradable.
Remarks: Based on data from similar materials

Benzenesulfonic acid, dodecyl-, compd. with (Z)-.alpha.,.alpha.'-[(9-octadecenylimino)di-2,1-ethanediyl]bis[.omega.-hydroxypoly(oxy-1,2-ethanediyl)] (1:1)**:**

Biodegradability : Result: Readily biodegradable.
Biodegradation: 85 %
Exposure time: 29 d
Method: OECD Test Guideline 301B

2-butoxyethanol:

Biodegradability : Inoculum: activated sludge
Result: Readily biodegradable.
Biodegradation: 90.4 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

Bioaccumulative potential

Components:

2-[(2-Chlorophenyl)methyl]-4,4-dimethyl-3-isoxazolidinone:

Bioaccumulation : Bioconcentration factor (BCF): 27 - 40
Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : log Pow: 2.5

cyclohexanone:

Partition coefficient: n-octanol/water : log Pow: 0.86 (77 °F / 25 °C)

dodecylbenzenesulphonic acid, compound with 2,2'-iminodiethanol (1:1):

Partition coefficient: n-octanol/water : log Pow: 4.28

Benzenesulfonic acid, dodecyl-, compd. with (Z)-.alpha.,.alpha.'-[(9-octadecenylimino)di-2,1-ethanediyl]bis[.omega.-hydroxypoly(oxy-1,2-ethanediyl)] (1:1)**:**

Bioaccumulation : Bioconcentration factor (BCF): 2 - 1,000
Method: OECD Test Guideline 305E

Partition coefficient: n-octanol/water : log Pow: 1.51

2-butoxyethanol:

Partition coefficient: n-octanol/water : log Pow: 0.81 (77 °F / 25 °C)
pH: 7

Mobility in soil

Components:

2-[(2-Chlorophenyl)methyl]-4,4-dimethyl-3-isoxazolidinone:

Distribution among environmental compartments : Remarks: Moderately mobile in soils

Other adverse effects

Product:

Ozone-Depletion Potential : 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 : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Very toxic to aquatic life with long lasting effects.

Components:

cyclohexanone:

Additional ecological information : No data available

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.
Send to a licensed waste management company.

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

International Regulations

UNRTDG

UN number	:	UN 1993
Proper shipping name	:	FLAMMABLE LIQUID, N.O.S. (Cyclohexanone, Clomazone)
Class	:	3
Packing group	:	III
Labels	:	3

IATA-DGR

UN/ID No.	:	UN 1993
Proper shipping name	:	Flammable liquid, n.o.s. (Cyclohexanone, Clomazone)
Class	:	3
Packing group	:	III
Labels	:	Flammable Liquids
Packing instruction (cargo aircraft)	:	366
Packing instruction (passenger aircraft)	:	355

IMDG-Code

UN number	:	UN 1993
Proper shipping name	:	FLAMMABLE LIQUID, N.O.S. (Cyclohexanone, Clomazone)
Class	:	3
Packing group	:	III
Labels	:	3
EmS Code	:	F-E, S-E
Marine pollutant	:	yes

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

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number	:	UN 1993
Proper shipping name	:	Flammable liquids, n.o.s. (Cyclohexanone, Clomazone)
Class	:	3
Packing group	:	III
Labels	:	FLAMMABLE LIQUID
ERG Code	:	128
Marine pollutant	:	yes
Remarks	:	Above applies only to containers over 119 gallons or 450 liters. Not regulated if shipped in packages less than or equal to 119 gallons (450 liters). If transporting by vessel or aircraft, unless other means of transportation is impracticable, then the product must be shipped as a flammable liquid.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
cyclohexanone	108-94-1	100	100 (F003)
cyclohexanone	108-94-1	5000	*

*: 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 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)
Acute toxicity (any route of exposure)

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

propanil (ISO)	709-98-8	>= 30 - < 50 %
2-butoxyethanol	111-76-2	>= 1 - < 5 %

Clean Air Act

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).
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (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):

cyclohexanone	108-94-1	>= 10 - < 20 %
2-butoxyethanol	111-76-2	>= 1 - < 5 %

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.
This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.
This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307
This product does not contain any priority pollutants related to the U.S. Clean Water Act

US State Regulations

Massachusetts Right To Know

cyclohexanone	108-94-1
2-butoxyethanol	111-76-2

Pennsylvania Right To Know

propanil (ISO)	709-98-8
2-[(2-Chlorophenyl)methyl]-4,4-dimethyl-3-isoxazolidinone	81777-89-1
cyclohexanone	108-94-1
Solvent naphtha (petroleum), light arom.	64742-95-6
dodecylbenzenesulphonic acid, compound with 2,2'-iminodiethanol (1:1)	26545-53-9
Oxirane, methyl-, polymer with oxirane, mono (2,4,6-tris(1-phenylethyl) ether	70880-56-7
2-butoxyethanol	111-76-2

Maine Chemicals of High Concern

cyclohexanone	108-94-1

Vermont Chemicals of High Concern

cyclohexanone	108-94-1

Washington Chemicals of High Concern

cyclohexanone	108-94-1

California List of Hazardous Substances

propanil (ISO)	709-98-8
cyclohexanone	108-94-1
2-butoxyethanol	111-76-2

California Permissible Exposure Limits for Chemical Contaminants

cyclohexanone	108-94-1
2-butoxyethanol	111-76-2

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

TCSI	:	On the inventory, or in compliance with the inventory
TSCA	:	Product contains substance(s) not listed on TSCA inventory.
AIIC	:	Not in compliance with the inventory
DSL	:	This product contains the following components that are not on the Canadian DSL nor NDSL. 2-(2-CHLOROBENZYL)-4,4-DIMETHYLISOXAZOLIDIN-3-ONE Benzenesulfonic acid, dodecyl-, compd. with (Z)-.alpha.,.alpha.'-[(9-octadecenylimino)di-2,1-ethanediyl]bis[.omega.-hydroxypoly(oxy-1,2-ethanediyl)] (1:1) propanil (ISO)
ENCS	:	Not in compliance with the inventory
ISHL	:	Not in compliance with the inventory

KECI	:	Not in compliance with the inventory
PICCS	:	Not in compliance with the inventory
IECSC	:	Not in compliance with the inventory
NZIoC	:	Not in compliance with the inventory

TSCA list

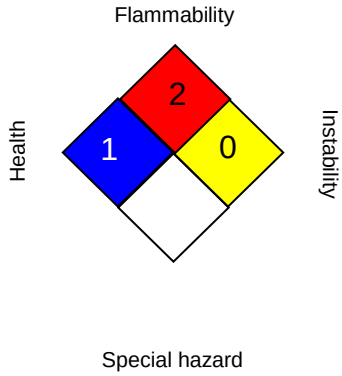
No substances are subject to a Significant New Use Rule.

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

SECTION 16. OTHER INFORMATION

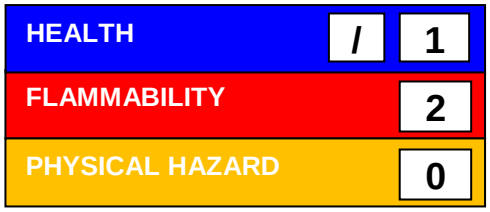
Further information

NFPA 704:



0 No health threat, **1** Slightly Hazardous, **2** Hazardous, **3** Extreme danger, **4** Deadly

HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	:	ACGIH - Biological Exposure Indices (BEI)
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA P0	:	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
OSHA P0 / TWA	:	8-hour time weighted average
OSHA Z-1 / TWA	:	8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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Prepared by:

FMC Corporation

End of Material Safety Data Sheet