

SAFETY DATA SHEET

SteriKem

Dekwaneh-Main Road-Beirut,Lebaon

Tel / Fax :00961-1-691655

Alcosan

1- PRODUCT AND COMPANY IDENTIFICATION

Brand name: Alcosan
Manufacturer / supplier: Novaline sal
Dekwaneh,Main Road,Beirut,Lebanon
Tel / Fax:00961-1-691655

2- COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENTS	CAS NO	SYMBOL / NUMBER	CONTENTS %
ETHANOL	64-17-5	<i>R11</i>	>60%
TRICHLORO 2 HYDROXYDIPHENYL ETHER	3380-34-5	<i>Xi, N;R36,38R50,53</i>	<1%
GLYCERINE	000057-55-6		<1%

3- HAZARDS IDENTIFICATION

EYE CONTACT May cause redness to eyes.
SKIN CONTACT Not a Hazard
INGESTION May cause vomiting.
INHALATION Not a Hazard

4- FIRST AID

Eyes: Rinse immediately with flowing water.
Inhalation: Remove to fresh air.
Ingestion: Remove product from mouth. Seek medical help. Drink plenty of water.
Skin: N /A.

5- FIRE FIGHTING MEASURES

Flammable .Use extinguishing media appropriate for surrounding fire.

6- ACCIDENTAL RELEASE MEASURES

Absorb with liquid-binding material (sand...)
Rinse with plenty of water and collect the solution to drain.
Environmental regulation should be respected.
Avoid contact with eyes.

7- HANDLING AND STORAGE

Avoid prolonged contact with skin.
Avoid contact with eyes.
Avoid extreme temperature. Store in a cool place.
STORE IN A NO SMOKING AREA.

8- EXPOSURE CONTROLS/ PERSONAL PROTECTION

Hand: Personal protection is normally not required.
Eyes: Avoid contact with eyes
Skin: Rinse with water
Respiration: Personal protection is not required in normal use

Alcosan

9- PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Clear colorless Liquid
ODOUR:	Characteristic
pH:	6.5
SOLUBILITY:	Miscible with water
DENSITY:	0.8 g /cm ³
FLASH POINT:	23°C
BOILING POINT:	100 C

10- STABILITY AND REACTIVITY

Do not mix with any chemicals.
Stable if used according to specifications.

11- TOXICOLOGICAL INFORMATION

Unlikely to be irritant to eyes.
If any allergic reaction occurs for a sensitive skin, seek immediately medical advice.

12- ECOLOGICAL INFORMATION

Do not drain the concentrate product without dilution.

13- DISPOSAL CONSIDERATIONS

Large spills or uncontrolled discharges into rivers or streams must be reported to the Environment agency or other regulatory body.

14- TRANSPORT REGULATION

PROPER SHIPPING NAME	FLAMMABLE LIQUID NOS
UN No	1993
HAZARD CLASS	3
ADR PACK GROUP	III

15- REGULATORY INFORMATION

LABEL FOR SUPPLY:

Flammable		
SAFETY PHRASES	S2	Keep out of reach of children
	S25	Avoid contact with eyes
	S36	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
	S24	If swallowed, seek medical advice immediately

STATUTORY INSTRUMENTS Chemicals (Hazard Information and Packaging) Regulations

16- OTHER INFORMATION

RISK PHRASES - FULL TEXT	R11	High flammable
	R22	Harmful if swallowed
	R36	Irritating to the eyes
	R38	Irritating to the skin
	R41	Risk of serious damage to eyes

Revision date: 4th July 2023 – Revision No. 4

Safety Data Sheet

according to Regulation (EC) No 1907/2006, Article 31,
as modified by Regulation (EU) No 2020/879

Edition 3

Printing date : 13/04/2022

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

1.1. Product identifier

Mixture identification:

Trade name: **SWISSJET SP5 Black**

Trade code:

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

Recommended use:

Digital printing ink

Uses advised against:

All those who are not listed in the recommended uses

1.3. Details of the supplier of the safety data sheet

Company: Swiss Performance Chemicals

Rothaustasse 61

4132 Muttens

Switzerland

Competent person responsible for the safety data sheet:

1.4. Emergency telephone number

Tel. +41 (0) 618261031

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)



Warning, Skin Sens. 1A, May cause an allergic skin reaction.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Warning

Hazard statements:

H317 May cause an allergic skin reaction.

Precautionary statements:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P272 Contaminated work clothing should not be allowed out of the workplace

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water and soap.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P501 Dispose of waste product or used containers according to local regulations

Special Provisions:

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None
 Contains
 C.I. Disperse Blue 360
 C.I. Disperse Yellow 54
 Special provisions according to Annex XVII of REACH and subsequent amendments:
 None
2.3. Other hazards
 vPvB Substances: None - PBT Substances: None
 Other Hazards:
 No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Components		CLP Classification	Product identifier
Disperse Blue 360	1% - 3%	 2.7/1 Flam. Sol. 1 H228  3.4.2/1A Skin Sens. 1B H317	CAS-No.: 70693-64-0 EC-No.: 435-600-5 REACH No.: 01-2119891303-38-0001
C.I. Disperse Yellow 54	0.25% ≤ x < 0.5%	 3.4.2/1B Skin Sens. 1B H317	CAS: 17772-51-9 EC: 241-753-7 REACH No.: 01-21200863 53-55-00066
1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	< 0.02%	Acute Tox. 4 H302, Skin Irrit. 2 H315, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Acute 1 H400 [SensSk1: C ≥ 0,05 %]	CAS-No.: 2634-33-5 EC-No.: 220-120-9 Index-No: 613-088-00-6

Note: Upper limit is not included into the range. The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4: First aid measures

4.1. Description of first aid measures

Contact with skin:

Wash with plenty of water and soap.

Contact with eyes:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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Swallowing:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

None

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

Treatment:

None

SECTION 5: Firefighting measures

5.1. Extinguishing media

Recommended extinguishers:

Water, CO₂, Foam, Chemical powders, according to the materials involved in the fire.

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.
Do not eat or drink while working.
Adopt good working practices, so that the product is not released into the environment.
See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.
Incompatible materials:
None in particular.
Instructions as regards storage premises:
Adequately ventilated premises.

7.3. Specific end use(s)

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No occupational exposure limit available
DNEL Exposure Limit Values
C.I. Disperse Blue 360 - CAS: 70693-64-0
Worker Industry: 13.3 mg/m³ - Consumer: 6.5 mg/m³ - Exposure: Human Inhalation -
Frequency: Long terms Term, systemic effects
Worker Industry: 2.5 mg/Kg - Consumer: 1.25 mg/Kg – Human Dermal Exposure
Frequency: Long terms Term, systemic effects
PNEC Exposure Limit Values
C.I. Disperse Blue 360 - CAS: 70693-64-0
Target: Fresh Water - Value: 0.1 mg/l
Target: Marine water - Value: 0.1 mg/l

8.2. Exposure controls

Eye protection:
Safety glasses for protection against chemicals (EN166).
Protection for skin:
Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.
Protection for hands:
Wear suitable gloves tested to EN374.
Respiratory protection:
Not needed for normal use.
Thermal Hazards:
None
Environmental exposure controls:
None
Appropriate engineering controls:
None

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Appearance:	liquid	--	--
Colour:	Black	--	--
Odour:	mild	--	--
Odour threshold:	not available	--	--
pH:	8.5 – 9.5	--	@ 25 °C
Melting point / freezing point:	not available	--	--
Initial boiling point and boiling range:	> 100°C / 212 °F	--	--
Flash point:	> 130 °C / 266 °F	--	--
Evaporation rate:	not available	--	--
Solid/gas flammability:	not applicable	--	Not applicable, it's a liquid
Upper/lower flammability or explosive limits:	not available	--	--
Vapour pressure:	not available	--	--
Vapour density:	not available	--	--
Relative density:	1.12	--	@ 25 °C
Solubility in water:	soluble	--	--
Solubility in oil:	not available	--	--
Partition coefficient (n-octanol/water):	not available	--	--
Auto-ignition temperature:	not available	--	--
Decomposition temperature:	not available	--	--
Viscosity:	4 - 6 cPs	--	@ 25 °C
Explosive properties:	not applicable	Regulation (EC) No 1907/2006, Annex VII, Column 2, point 7.11	no chemical groups associated with explosive properties
Oxidizing properties:	not applicable	Regulation (EC) No 1907/2006, Annex VII, Column 2, point 7.13	the product is incapable of reacting exothermically with combustible materials

9.2. Other information

Properties	Value	Method:	Notes:
Miscibility:	miscible	--	--

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Fat Solubility:	not available	--	--
Conductivity:	<3000 µS/cm	--	@ 25°C

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

None

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological information of the product:

- a) acute toxicity
No data is available on the product itself.
- b) skin corrosion/irritation
Not classified
Based on calculation method, the classification criteria are not met
- c) serious eye damage/irritation
Not classified
Based on calculation method, the classification criteria are not met
- d) respiratory or skin sensitisation
The product is classified: Skin Sens. 1B H317
- e) germ cell mutagenicity
Not classified
Based on calculation method, the classification criteria are not met
- f) carcinogenicity
Not classified
Based on calculation method, the classification criteria are not met
- g) reproductive toxicity
Not classified
Based on calculation method, the classification criteria are not met
- h) STOT-single exposure
Not classified
Based on calculation method, the classification criteria are not met
- i) STOT-repeated exposure
Not classified
Based on calculation method, the classification criteria are not met
- j) aspiration hazard
Not classified

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Based on calculation method, the classification criteria are not met

Toxicological information of the main substances found in the product:

C.I. Disperse Blue 360 - CAS: 70693-64-0

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 2000 mg/kg - Notes: OECD 423

Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg Notes: OECD 402

b) skin corrosion/irritation:

Test: Skin Irritant - Route: Skin - Species: Rabbit Negative

c) serious eye damage/irritation:

Test: Eye Irritant - Route: OCULARE - Species: Rabbit Negative Notes: OECD 492

d) Respiratory / skin sensitization:

Path: dermal - species: mouse positive - source: ECHA - comments: OECD 429

C.I. Disperse Yellow 54, CAS: 17772-51-9

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg

Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg

b) skin corrosion/irritation:

Test: Skin Irritant - Route: Skin - Species: Rat > 5000 mg/kg - Notes: OECD 404

Test: Skin Irritant - Route: Skin - Species: Mouse Positive

c) serious eye damage/irritation:

Test: Eye Irritant - Route: OCULARE - Species: Rabbit Negative - Notes: OECD 405

d) Respiratory / skin sensitization:

Path: dermal - species: mouse positive - source: ECHA - comments: OECD 429

1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one (CAS 2634-33-5)

a) acute toxicity

Oral LD50 Rat = 1020 mg/kg (NZ_CCID)

b) skin corrosion/irritation:

Not available

c) serious eye damage/irritation:

Not available

d) Respiratory / skin sensitization:

Not available

SECTION 12: Ecological information

12.1. Toxicity No data is available on the product itself

C.I. Disperse Blue 360 - CAS: 70693-64-0

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Algae > 0.1 mg/l - Duration h: 72 - Notes: Desmodesmus subspicatus - OECD 201

Endpoint: NOEC - Species: Algae > 0.003 mg/l - Duration h: 72 - Notes: Desmodesmus subspicatus - OECD 201

Endpoint: EC50 - Species: Daphnia > 0.1 mg/l - Duration h: 48 - Notes: Daphnia Magna - OECD 202

Endpoint: NOEC - Species: Daphnia > 0.009 mg/l - Duration h: 48 - Notes: Daphnia Magna - OECD 202

Endpoint: LC50 - Species: Fish > 0.1 mg/l - Duration h: 96 - Notes: ECHA Onchorhynchus

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mykiss OECD 203

Endpoint: NOEC - Species: Daphnia > 0.017 mg/l - Duration h: 96 - Notes: ECHA

Onchorhynchus mykiss OECD 203

c) Bacteria toxicity:

Endpoint: EC50 - Species: Active sludges > 1000 mg/l - Duration h: 3 -

Notes: ECHA OECD 209

Endpoint: NOEC - Species: Active sludges > 1000 mg/l - Duration h: 3 -

Notes: ECHA OECD 209

C.I. Disperse Yellow 54, CAS: 17772-51-9

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 180 mg/l - Duration h: 96 - Notes: Pimephales promelas

Endpoint: NOEC - Species: Daphnia > 0.07 mg/l - Duration h: 504 - Notes: Daphnia Magna - OECD 211 (mortalità)

Endpoint: NOEC - Species: Daphnia > 0.07 mg/l - Duration h: 504 - Notes: Daphnia Magna - OECD 211 (mortalità)

Endpoint: EC50 - Species: Algae > 0.412 mg/l - Duration h: 72 - Notes: Desmodesmus subspicatus - OECD 201

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Algae > 0.412 mg/kg - Duration h: 72 - Notes: Desmodesmus subspicatus - OECD 201

f) Effects in sewage plants:

Endpoint: EC50 - Species: Active sludges > 1000 mg/l - Duration h: 3

1,2-benzisothiazol-3(2H)-one (CAS 2634-33-5)

EU - Ecolabel (66/2010) – Detergent Not biodegradable under anaerobic conditions

Ingredient Database - Anaerobic Degradation

EU - Ecolabel (66/2010) – Detergent Inherently biodegradable according to OECD guidelines

Ingredient Database - Aerobic Degradation

12.2. Persistence and degradability

Disperse Blue 360 - CAS: 70693-64-0

Biodegradability: Non-readily biodegradable

C.I. Disperse Yellow 54, CAS: 17772-51-9

Biodegradability: Non-readily biodegradable

12.3. Bioaccumulative potential

Disperse Yellow 54, 3-hydroxy-2-(3-hydroxy-2-quinolyl)-1H-inden-1-one - CAS: 17772-51-9

Bioaccumulation: Bioaccumulative - Test: Kow - Partition coefficient 4.8 - Duration h: N.A. - Notes:

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects

None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

Dispose of waste product or used containers according to local regulations.

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

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SECTION 14: Transport information

Not classified as dangerous in the meaning of transport regulations.

14.1. UN number

ADR-UN number: not applicable
IATA-Un number: not applicable
IMDG-Un number: not applicable

14.2. UN proper shipping name

ADR-Shipping Name: not applicable
IATA-Shipping Name: not applicable
IATA-Technical name: not applicable
IMDG-Shipping Name: not applicable
IMDG-Technical name: not applicable

14.3. Transport hazard class(es)

ADR-Label: not applicable
IATA-Label: not applicable
IMDG-Label: not applicable

14.4. Packing group

ADR-Packing Group: not applicable
IATA-Packing group: not applicable
IMDG-Packing group: not applicable

14.5. Environmental hazards

ADR-Environmental Pollutant: No
IMDG-Marine pollutant: No

14.6. Special precautions for user

ADR-Tunnel Restriction Code: not applicable
IATA-Passenger Aircraft: not applicable
IATA-Cargo Aircraft: not applicable
IMDG-Page: not applicable
IMDG-EMS: not applicable
IMDG-MFAG: not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No

SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) 2015/830
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)

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Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) Nr. 2017/776 (10. ATP CLP)
Regulation (EU) Nr. 2018/699 (11. ATP CLP)
Regulation (EU) Nr. 2018/1480 (13. ATP CLP)
Regulation (EU) Nr. 2019/521 (12. ATP CLP)
Regulation (EU) Nr. 2020/217 (14. ATP CLP)
Regulation (EU) Nr. 2020/1182 (15. ATP CLP)
Regulation (EU) Nr. 2021/643 (16. ATP CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

Restriction 3

Restrictions related to the substances contained:

Restriction 28

Restriction 72

Volatile Organic compounds - VOCs = 0.15 %

Volatile Organic compounds - VOCs = 1.5 g/Kg

Volatile CMR substances = 0.00 %

Halogenated VOCs which are assigned the risk phrase R40 = 0.00 %

Organic Carbon - C = 0.01

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

None

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Key or legend to abbreviations and acronyms

CLP: Classification according to Regulation (EC) No. 1272/2008 (GHS)

Full text of phrases referred to under sections 2 and 3

H228: Flammable solid

H302: Harmful if swallowed.

H315: Causes skin irritation

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H400: Very toxic to aquatic life

This safety data sheet has been completely updated in compliance to Regulation 2015/830.

Safety Data Sheet

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,
Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van
Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

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

ATE: Acute toxicity estimates

ATE Mix Acute toxicity estimates for Mixtures

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

CLP: Classification, Labeling, Packaging.

DNEL: Derived No Effect Level.

EINECS: European Inventory of Existing Commercial Chemical Substances.

GefStoffVO: Ordinance on Hazardous Substances, Germany.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).

IMDG: International Maritime Code for Dangerous Goods.

INCI: International Nomenclature of Cosmetic Ingredients.

KSt: Explosion coefficient.

LC50: Lethal concentration, for 50 percent of test population.

LD50: Lethal dose, for 50 percent of test population.

PNEC: Predicted No Effect Concentration.

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.

STEL: Short Term Exposure limit.

STOT: Specific Target Organ Toxicity.

TLV: Threshold Limiting Value.

TWA: Time-weighted average

WGK: German Water Hazard Class.

Section 1. Identification

Product number: 2K PAINT CLARET
Product use: Surface Coating
Restrictions on use: None known
Manufacture/Supplier: AMAZONA PAINTS SAL
Address: ZOUK MOSBEH

Telephone: 00961 9 218656
Website: www.amazonapaints.com

Section 2. Hazards identification

OSHA/HCS status: This material is considered hazardous by the OSHA Hazardous Communication Standard (29 CFR 1910.1200).

Hazard classification:

Physical hazards: Flammable Liquids: Category 3

Health hazards: Causes Skin Irritation Category 2
 Serious Eye Damage/Eye Irritation: Category 2A
 Acute Aquatic Hazard: Category 1
 Chronic Aquatic Hazard: Category 1

GHS label elements

Hazard pictograms:



Signal word: Warning

Hazard statements: H226: Flammable liquid and vapor.
 H315: Causes skin irritation.
 H319: Causes serious eye irritation.
 H400: Very toxic to aquatic life
 H410: Very toxic to aquatic life with long lasting effects

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.
 P264: Wash thoroughly after handling.
 P270: Do not eat, drink or smoke when using this product.
 P271: Use only outdoors or in a well-ventilated area.
 P272: Contaminated work clothing should not be allowed out of the workplace.
 P273: Avoid release to the environment.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response: P370+P378: In case of fire; Use water spray, carbon dioxide, dry chemical or alcohol foam for extinction.



P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P363: Wash contaminated clothing before reuse.
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.
P332+P313: If skin irritation occurs: Get Medical advice/attention.
P337+P313: If eye irritation persists: Get medical advice/attention.
P391: Collect spillage

Storage: P403+P233: Store in a well-ventilated place. Keep container tightly closed.
P235: Keep cool.
P405: Store locked up.

Disposal: P501: 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 known.

Section 3. Composition / Information on Ingredients

Components	CAS#	Percent
Titanium dioxide*	13463-67-7	0-15
Silicon dioxide, amorphous*	7631-86-9	0-3
Carbon black*	1333-86-4	0-3
Acrylic polyol	none	5-15

Section 4. 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. In case of irritation from airborne exposure, move to fresh air. Get medical attention promptly.

Skin Contact: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that gas or vapor is still present, the rescuer should wear an appropriate mask of 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 immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Ingestion: Wash out mouth with water. Remove dentures if any. Get medical attention if symptoms occur. Never give anything by mouth to an unconscious person. If unconscious, place in

recovery position and get medical attention immediately.

**Most important
symptoms/effects,
acute**

**Potential acute health
effects**

Eye contact:	Causes serious eye irritation.
Skin contact:	Causes skin irritation.
Inhalation:	Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness.
Ingestion:	Can cause central nervous system (CNS) depression. Irritating to mouth and stomach.

**Over-exposure
signs/symptoms**

Eye contact:	Adverse symptoms may include the following: pain or irritation. Watering Redness
Skin contact:	Adverse symptoms may include the following: irritation redness
Inhalation:	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Ingestion	Adverse symptoms may include the following: nausea or vomiting

**Indication of
immediate medical
attention and special
treatment needed, if
necessary**

Notes to physician:	Not available
Specific treatments:	Treat symptomatically and supportively.
Protection of first-aiders:	No action shall be taken involving any personal risk or without suitable training. If it is suspected that gas or vapor is 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.

Section 5. Fire-fighting measures

Suitable extinguishing media: Use dry chemical, carbon dioxide, water spray (fog) or foam.



Unsuitable extinguishing media:

Do not use water jet.

Special hazards arising from the substance or mixture:

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. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products:

Decomposition products may include the following materials: carbon dioxide, carbon monoxide, smoke, oxides of nitrogen.

Special protective actions for fire-fighters:

Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

Special protective equipment for fire-fighters:

Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus with full face piece operated in the positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:

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.

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).

Methods and material for containment and cleaning up:

Eliminate sources of ignition. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Avoid runoff into storm sewers and ditches which lead to waterways. Use only non-combustible material for clean-up. Recover by pumping (use explosion proof or hand pump). Use clean, non-sparking tools to collect absorbed materials. Eliminate all ignition sources. Prevent additional discharge of material is able to do so safely. Do not touch or walk through spilled material. Collect spilled materials for disposal. Wear appropriate personal protective equipment (see Section 8 Exposure controls/personal protection). Evacuate unnecessary personnel. Do not apply water to the leak.

Section 7. Handling and storage

Precautions for safe handling:

Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Persons with a history of skin sensitization should not be employed in any process in which this product is



used. Do not swallow. Avoid breathing vapor or mist. 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 equipment. Empty containers retain product residue and can be hazardous. Do not reuse container. Ground and bond containers when transferring material. 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 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

U.S. ACGIH Threshold Limit Values

Components	Type	Value	Form
Titanium dioxide	TWA	10 mg/m ³	

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

Components	Type	Value	Form
Titanium dioxide	PEL	15mg/m ³	Total dust

U.S. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Silicon dioxide	TWA	0.8 mg/m ³ 20mppcf	

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.

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

**Eye/face protection:**

reusing. Ensure that eyewash stations and safety showers are close to the workstation location. Safety glasses equipped with side shields are recommended as minimum protection in industrial settings.

Skinprotection**Hand protection:**

Chemical-resistant 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.

Body protection: Other

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.

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:

Use a properly fitted, air-purifying or supplied-air respirator complying with an approved standard if a risk assessment indicated 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 & Chemical Properties**Appearance**

Physical state:	Liquid
Form:	Liquid
Color:	Opaque

Odor: Pungent

Odor threshold: Not available

pH: Not available

Melting point/freezing point: Not available

Initial boiling point and boiling range: 139.3°C (282.7°F)

Flash point: 24°C (Tag closed cup)

Evaporation rate: Not available

Upper/lower flammability or explosive limits: Not available

Vapor pressure: Not available

Vapor density: 1 Air = 1

Relative density: 1.7791-1.1.8992

Solubility(ies): Insoluble in the following materials: cold water



Partition coefficient: n-octanol/water:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	Not available
VOC (mixed less water & exempt compounds):	Less than 5 grams/liter
Other information:	No additional information

Section 10. Chemical stability & reactivity information

Reactivity:	None known.
Chemical stability:	Stable.
Possibility of hazardous reactions:	None known.
Conditions to avoid:	All possible sources of ignition (heat, sparks, flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
Incompatible materials:	Strong oxidizing agents. Strong acids. Strong alkalis.
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

Conclusion/summary:	Not available
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Oral:	Not available
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Dermal:	Not available
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Inhalation:	Not available
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Irritation/Corrosion

Skin: Eyes:	Not available
-------------	---------------

Respiratory:	Not available
--------------	---------------

<u>Sensitization</u>	Not available
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Skin: Respiratory:

Not available

Mutagenicity

Not available

Conclusion/Summary:

Carcinogenicity

Not available

Conclusion/Summary:

Product contains less than 0.1% styrene CAS 100-42-5.

Carcinogenic categories for styrene:

IRAC: 2B

NTP: R

OSHA: None

Titanium dioxide: In lifetime inhalation studies rats were exposed for 2 years to respectively 10, 50 and 250 mg/m³ of respirable TiO₂. Slight lung fibrosis was observed at 50 and 250 mg/m³ levels. Microscopic lung tumors were also observed in 13 percent of the rats exposed to 250 mg/m³, an exposure level that caused lung overloading and impairment of rat lungs clearance mechanisms. In further studies, these tumors were found to occur only under particle overload conditions in a uniquely sensitive species, the rat, and have little or no relevance for humans. The pulmonary inflammatory response to TiO₂ particles exposure was also found to be much more severe in rats than in other rodent species. In February 2006, IARC has re-evaluated Titanium dioxide as pertaining to Group 2B: "possibly carcinogenic to humans", based upon inadequate evidence in humans and sufficient evidence in experimental animals for the carcinogenicity of titanium dioxide. IARC evaluation guidelines consider the generation of tumors, in 2 different studies within the same animal species, to be adequate criteria for an assessment of sufficient evidence.

The conclusions of several epidemiology studies on more than 20000 TiO₂ industry workers in Europe and the USA did not suggest a carcinogenic effect of TiO₂ dust on the human lung. Mortality from other chronic diseases, including other respiratory diseases, was also not associated with exposure to TiO₂ dust. Based upon all available study results, DuPont scientists conclude that titanium dioxide will not cause lung cancer or chronic respiratory diseases in humans at concentrations experienced in the workplace.

Carbon black:

ANIMAL TOXICITY:

Rat, oral, duration 2 years
Effect: no tumors.

Mouse, oral, duration 2 years
Effect: no tumors.

Rat, inhalation, duration 2 years
Target organ: lungs.
Effect: inflammation, fibrosis, tumors.

Note: Tumors in the rat lung are considered to be related to the "lung overload" rather than to a specific chemical effect of carbon black itself in the lung. These effects in rats have been reported in many studies on other poorly soluble inorganic particles and appear to be rat specific (ILSI, 2000). Tumors have not been observed in other species (i.e., mouse and hamster) for carbon black or other poorly soluble particles under similar circumstances and study conditions.

MORTALITY STUDIES (HUMAN DATA):

A study on carbon black production workers in the UK (Sorahan, 2001) found an increased risk of lung cancer in two of the five plants studied; however, the increase was not related to the dose of carbon black. Thus, the authors did not consider the increased risk in lung cancer to be due to carbon black exposure. A German study of carbon black workers at one plant (Morfeld, 2006; Buechte, 2006) found a similar increase in lung cancer risk but, like the Sorahan, 2001 (UK study), found no association with carbon black exposure. A large US study of 18 plants showed a reduction in lung cancer risk in carbon black production workers (Dell, 2006). Based upon these studies, the February 2006 Working Group at the International Agency for Research on Cancer (IARC) concluded that the human evidence for carcinogenicity was inadequate (IARC, 2010).

Since the IARC evaluation of carbon black, Sorahan and Harrington (2007) have re-analyzed the UK study data using an alternative exposure hypothesis and found a positive association with carbon black exposure in two of the five plants. The same exposure hypothesis was applied by Morfeld and McCunney (2009) to the German cohort; in contrast, they found no association between carbon black exposure and lung cancer risk and, thus, no support for the alternative exposure hypothesis used by Sorahan and Harrington.

Over, as a result of these detailed investigations, no causative link between carbon black exposure and cancer risk in humans has been demonstrated.

IARC CANCER CLASSIFICATION:

In 2006 IARC re-affirmed its 1995 finding that there is “inadequate evidence” from human health studies to assess whether carbon black causes cancer in humans. IARC concluded that there is “sufficient evidence” in experimental animal studies for the carcinogenicity of carbon black. IARC’s overall evaluation is that carbon black is “possibly carcinogenic to humans (Group 2B)”. This conclusion was based on IARC’s guidelines, which generally require such a classification if one species exhibits carcinogenicity in two or more animal studies (IARC, 2010).

Solvent extracts of carbon black were used in one study of rats in which skin tumors were found after dermal application and several studies of mice in which sarcomas were found following subcutaneous injection. IARC concluded that there was “sufficient evidence” that carbon black extracts can cause cancer in animals (Group 2B).

ACGIH CANCER CLASSIFICATION:

Confirmed Animal Carcinogen with Unknown Relevance to Humans (Category A3 Carcinogen).

Reproductivetoxicity

Conclusion/Summary: Not available

Specific target organ toxicity (single exposure): Not available

Specific target organ toxicity (repeated exposure): Not available



Aspiration hazard: Not available

Information on likely routes of exposure:

Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects:

Eye contact: Causes serious eye irritation.

Inhalation: Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness.

Skin contact: Causes skin irritation.

Ingestion: Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: Adverse symptoms may include pain or irritation, watering, redness.

Inhalation: Adverse symptoms may include nausea or vomiting, headache, drowsiness/fatigue, dizziness/vertigo, unconsciousness.

Skin contact: Adverse symptoms may include irritation, redness.

Ingestion: Adverse symptoms may include nausea or vomiting.

Potential chronic health effects: Overexposure may cause nervous system damage. Overexposure may cause kidney damage. May cause liver disorder (e.g., edema, proteinuria) and damage.

Section 12. Ecological information

Toxicity

Acute toxicity

Fish

Product: Not available

Specified substances:

Zinc phosphate LC-50 (96 h): less than or equal to 0.1 mg/l

Aquatic invertebrates

Product: Not available

Chronic toxicity

Fish

Product: Not available

Aquatic invertebrates

Product: Not available

Toxicity to aquatic plants

Product: Not available



Specified substances: Not available

Persistence and degradability

Biodegradation Product: Not available

Specified substances: Not available

Biological Oxygen Demand Product: Not available

Specified substances: Not available

Chemical Oxygen Demand Product: Not available

Specified substances: Not available

BOD/COD ratio: Not available

Bioaccumulative potential: Not available

Mobility in soil: Not available

Results of PBT and vPvB assessment: Not available

Other adverse effects: Not available

Section 13. Disposal considerations

Disposal methods: Dispose of waste in accordance with all local, state and federal regulations.

Section 14. Transport information

DOT

Basic shipping requirements:

UN number	UN1263
Proper shipping name	Paint
Hazard class	Flammable Liquid
Labels required	3

Additional information:

Packaging exceptions	150
Packaging non bulk	173
Packaging bulk	242

IATA

Basic shipping requirements:

UN Number	1263
Proper shipping name	Paint
Hazard class	3
Packing group	III

Section 15. Regulatory information

US federal regulations

OSHA: This product is hazardous according to OSHA 29 CFR 1910.1200

SARA Title III Section 311/3 Hazard categories:	Immediate (acute) health hazard
SARA Title III Section 302 Extremely hazardous substances:	Delayed (chronic) health hazard
	Fire hazard
	None



Section 16. Other Information

Further information HMIS® is a registered trade and service mark of the NPCA

HMIS® ratings Health: 2
Flammability: 2
Physical hazard: 1

NFPA ratings Health: 2
Flammability: 2
Instability: 1

Disclaimer

Issue date HMIS® is a registered trade and service mark of the NPCA

The information in the sheet was written based on the best knowledge and experience currently available.

01/07/2023

Safety Data Sheet

according to Regulation (EC) No 1907/2006, Article 31,
as modified by Regulation (EU) No 2020/879

Edition 3

Printing date : 13/04/2022

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

1.1. Product identifier

Mixture identification:

Trade name: **SWISSJET SP5 Cyan**

Trade code:

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

Recommended use:

Digital printing ink

Uses advised against:

All those who are not listed in the recommended uses

1.3. Details of the supplier of the safety data sheet

Company: Swiss Performance Chemicals

Rothaustasse 61

4132 Muttensz

Switzerland

Competent person responsible for the safety data sheet:

1.4. Emergency telephone number

Tel. +41 (0) 618261031

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

Hazard pictograms:

None

Hazard statements:

None

Precautionary statements:

None

Special Provisions:

EUH210 Safety data sheet available on request.

EUH208 Contains 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one. May produce an allergic reaction

Special provisions according to Annex XVII of REACH and subsequent amendments:

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

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Other Hazards:
No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Components		CLP Classification	Product identifier
1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	< 0.1%	Acute Tox. 4 H302, Skin Irrit. 2 H315, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Acute 1 H400 [SensSk1: C ≥ 0,05 %]	CAS-No.: 2634-33-5 EC-No.: 220-120-9 Index-No: 613-088-00-6

Note: Upper limit is not included into the range. The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4: First aid measures

4.1. Description of first aid measures

Contact with skin:

Wash with plenty of water and soap.

Contact with eyes:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Swallowing:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

None

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

Treatment:

None

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Recommended extinguishers:

Water, CO₂, Foam, Chemical powders, according to the materials involved in the fire.

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Do not eat or drink while working.

Adopt good working practices, so that the product is not released into the environment.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

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None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No occupational exposure limit available

DNEL Exposure Limit Values

N.A.

PNEC Exposure Limit Values

N.A.

8.2. Exposure controls

Eye protection:

Not needed for normal use. Anyway, operate according good working practices.

Protection for skin:

No special precaution must be adopted for normal use.

Protection for hands:

Not needed for normal use.

Respiratory protection:

Not needed for normal use.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Appearance:	liquid	--	--
Colour:	blue	--	--
Odour:	mild	--	--
Odour threshold:	not available	--	--
pH:	8.5 – 9.5	--	@ 25 °C
Melting point / freezing point:	not available	--	--
Initial boiling point and boiling range:	> 100°C / 212 °F	--	--
Flash point:	> 130 °C / 266 °F	--	--
Evaporation rate:	not available	--	--
Solid/gas flammability:	not applicable	--	Not applicable, it's a liquid
Upper/lower flammability or explosive limits:	not available	--	--
Vapour pressure:	not available	--	--
Vapour density:	not available	--	--
Relative density:	1.070	--	@ 25 °C
Solubility in water:	soluble	--	--

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Solubility in oil:	not available	--	--
Partition coefficient (n-octanol/water):	not available	--	--
Auto-ignition temperature:	not available	--	--
Decomposition temperature:	not available	--	--
Viscosity:	4 - 6 cPs	--	@ 25 °C
Explosive properties:	not applicable	Regulation (EC) No 1907/2006, Annex VII, Column 2, point 7.11	no chemical groups associated with explosive properties
Oxidizing properties:	not applicable	Regulation (EC) No 1907/2006, Annex VII, Column 2, point 7.13	the product is incapable of reacting exothermically with combustible materials

9.2. Other information

Properties	Value	Method:	Notes:
Miscibility:	miscible	--	--
Fat Solubility:	not available	--	--
Conductivity:	<3000 µS/cm	--	@ 25°C

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

None

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological information of the product:

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a) acute toxicity

No data is available on the product itself.

**1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one
(CAS 2634-33-5)**

Oral LD50 Rat = 1020 mg/kg (NZ_CCID)

b) skin corrosion/irritation

Not classified

Based on calculation method, the classification criteria are not met

c) serious eye damage/irritation

Not classified

Based on calculation method, the classification criteria are not met

d) respiratory or skin sensitisation

Not classified

Based on calculation method, the classification criteria are not met

e) germ cell mutagenicity

Not classified

Based on calculation method, the classification criteria are not met

f) carcinogenicity

Not classified

Based on calculation method, the classification criteria are not met

g) reproductive toxicity

Not classified

Based on calculation method, the classification criteria are not met

h) STOT-single exposure

Not classified

Based on calculation method, the classification criteria are not met

i) STOT-repeated exposure

Not classified

Based on calculation method, the classification criteria are not met

j) aspiration hazard

Not classified

Based on calculation method, the classification criteria are not met

Toxicological information of the main substances found in the product:

N.A.

SECTION 12: Ecological information

12.1. Toxicity

1,2-benzisothiazol-3(2H)-one (CAS 2634-33-5)

EU - Ecolabel (66/2010) – Detergent Not biodegradable under anaerobic conditions

Ingredient Database - Anaerobic Degradation

EU - Ecolabel (66/2010) – Detergent Inherently biodegradable according to OECD guidelines

Ingredient Database - Aerobic Degradation

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

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N.A.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects

None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

Dispose of waste product or used containers according to local regulations.

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

SECTION 14: Transport information

Not classified as dangerous in the meaning of transport regulations.

14.1. UN number

ADR-UN number: not applicable

IATA-Un number: not applicable

IMDG-Un number: not applicable

14.2. UN proper shipping name

ADR-Shipping Name: not applicable

IATA-Shipping Name: not applicable

IATA-Technical name: not applicable

IMDG-Shipping Name: not applicable

IMDG-Technical name: not applicable

14.3. Transport hazard class(es)

ADR-Label: not applicable

IATA-Label: not applicable

IMDG-Label: not applicable

14.4. Packing group

ADR-Packing Group: not applicable

IATA-Packing group: not applicable

IMDG-Packing group: not applicable

14.5. Environmental hazards

ADR-Environmental Pollutant: No

IMDG-Marine pollutant: No

14.6. Special precautions for user

ADR-Tunnel Restriction Code: not applicable

IATA-Passenger Aircraft: not applicable

IATA-Cargo Aircraft: not applicable

IMDG-Page: not applicable

IMDG-EMS: not applicable

IMDG-MFAG: not applicable

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14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
No

SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) 2015/830
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) Nr. 2017/776 (10. ATP CLP)
Regulation (EU) Nr. 2018/699 (11. ATP CLP)
Regulation (EU) Nr. 2018/1480 (13. ATP CLP)
Regulation (EU) Nr. 2019/521 (12. ATP CLP)
Regulation (EU) Nr. 2020/217 (14. ATP CLP)
Regulation (EU) Nr. 2020/1182 (15. ATP CLP)
Regulation (EU) Nr. 2021/643 (16. ATP CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

No restriction.

Restrictions related to the substances contained:

Restriction 28

Restriction 72

Volatile Organic compounds - VOCs = 1.02 %

Volatile Organic compounds - VOCs = 10.20 g/Kg

Volatile CMR substances = 0.00 %

Halogenated VOCs which are assigned the risk phrase R40 = 0.00 %

Organic Carbon - C = 0.00

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

None

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

Safety Data Sheet

SECTION 16: Other information

Key or legend to abbreviations and acronyms

CLP: Classification according to Regulation (EC) No. 1272/2008 (GHS)

Full text of phrases referred to under sections 2 and 3

H302: Harmful if swallowed.

H315: Causes skin irritation

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H400: Very toxic to aquatic life

This safety data sheet has been completely updated in compliance to Regulation 2015/830.

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,
Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van
Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
ATE:	Acute toxicity estimates
ATE Mix	Acute toxicity estimates for Mixtures
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.

Safety Data Sheet

STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.

Safety Data Sheet

according to Regulation (EC) No 1907/2006, Article 31,
as modified by Regulation (EU) No 2020/879

Edition 3

Printing date : 13/04/2022

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

1.1. Product identifier

Mixture identification:

Trade name: **SWISSJET SP5 Magenta**

Trade code:

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

Recommended use:

Digital printing ink

Uses advised against:

All those who are not listed in the recommended uses

1.3. Details of the supplier of the safety data sheet

Company: Swiss Performance Chemicals

Rothaustasse 61

4132 Muttensz

Switzerland

Competent person responsible for the safety data sheet:

1.4. Emergency telephone number

Tel. +41 (0) 618261031

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)



Warning, Skin Sens. 1A, May cause an allergic skin reaction.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Warning

Hazard statements:

H317 May cause an allergic skin reaction.

Precautionary statements:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P272 Contaminated work clothing should not be allowed out of the workplace

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water and soap.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

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P362+P364 Take off contaminated clothing and wash it before reuse.

P501 Dispose of waste product or used containers according to local regulations

Special Provisions:

None

Contains

Disperse Red 60, 1-Amino-4-hydroxy-2-phenoxyanthrachinon

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:


No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Components		CLP Classification	Product identifier
C.I. Disperse Red 60	5% ≤ x < 7%	 3.4.2/1B Skin Sens. 1A H317	CAS: 17418-58-5 EC: 241-442-6 REACH No.: 01-21200947-12-53-0005
1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	< 0.1%	Acute Tox. 4 H302, Skin Irrit. 2 H315, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Acute 1 H400 [SensSk1: C ≥ 0,05 %]	CAS-No.: 2634-33-5 EC-No.: 220-120-9 Index-No: 613-088-00-6

Note: Upper limit is not included into the range. The full wording of hazard (H) phrases is given in section 16 of the sheet.

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SECTION 4: First aid measures

4.1. Description of first aid measures

Contact with skin:

Wash with plenty of water and soap.

Contact with eyes:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Swallowing:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

None

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

Treatment:

None

SECTION 5: Firefighting measures

5.1. Extinguishing media

Recommended extinguishers:

Water, CO₂, Foam, Chemical powders, according to the materials involved in the fire.

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Safety Data Sheet

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Do not eat or drink while working.

Adopt good working practices, so that the product is not released into the environment.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No occupational exposure limit available

DNEL Exposure Limit Values

C.I. Disperse Red 60, 1-amino-4-hydroxy-2-phenoxyanthraquinone - CAS: 17418-58-5

Worker Industry: 3.53 mg/m³ - Worker Professional: 3.53 mg/m³ - Exposure: Human

Inhalation - Frequency: Short Term, systemic effects

Consumer: 0.5 03 - Exposure: Human Oral - Frequency: Long Term (repeated)

Consumer: 0.87 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term (repeated)

PNEC Exposure Limit Values

Disperse Red 60, 1-amino-4-hydroxy-2-phenoxyanthraquinone - CAS: 17418-58-5

Target: Fresh Water - Value: 0.1 mg/l

Target: Marine water - Value: 0.01 mg/l

Target: Freshwater sediments - Value: 217 05

Target: Marine water sediments - Value: 21.7 05

Target: Microorganisms in sewage treatments - Value: 10 mg/l

8.2. Exposure controls

Eye protection:

Safety glasses for protection against chemicals (EN166).

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Wear suitable gloves tested to EN374.

Respiratory protection:

Not needed for normal use.

Safety Data Sheet

Thermal Hazards:
None
Environmental exposure controls:
None
Appropriate engineering controls:
None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Appearance:	liquid	--	--
Colour:	red3	--	--
Odour:	mild	--	--
Odour threshold:	not available	--	--
pH:	8.5 -9.5	--	@ 25 °C
Melting point / freezing point:	not available	--	--
Initial boiling point and boiling range:	> 100°C / 212 °F	--	--
Flash point:	> 130 °C / 266 °F	--	--
Evaporation rate:	not available	--	--
Solid/gas flammability:	not applicable	--	Not applicable, it's a liquid
Upper/lower flammability or explosive limits:	not available	--	--
Vapour pressure:	not available	--	--
Vapour density:	not available	--	--
Relative density:	1.090	--	@ 25 °C
Solubility in water:	soluble	--	--
Solubility in oil:	not available	--	--
Partition coefficient (n-octanol/water):	not available	--	--
Auto-ignition temperature:	not available	--	--
Decomposition temperature:	not available	--	--
Viscosity:	4- 6 cPs	--	@ 25 °C
Explosive properties:	not applicable	Regulation (EC) No 1907/2006, Annex VII, Column 2, point 7.11	no chemical groups associated with explosive properties
Oxidizing properties:	not applicable	Regulation (EC) No 1907/2006, Annex VII,	the product is incapable of reacting exothermically with combustible materials

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		Column 2, point 7.13	
9.2. Other information			
Properties	Value	Method:	Notes:
Miscibility:	miscible	--	--
Fat Solubility:	not available	--	--
Conductivity:	<3000 µS/cm	--	@ 25°C

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

None

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological information of the product:

a) acute toxicity

No data is available on the product itself.

b) skin corrosion/irritation

Not classified

Based on calculation method, the classification criteria are not met

c) serious eye damage/irritation

Not classified

Based on calculation method, the classification criteria are not met

d) respiratory or skin sensitisation

The product is classified: Skin Sens. 1A H317

e) germ cell mutagenicity

Not classified

Based on calculation method, the classification criteria are not met

f) carcinogenicity

Not classified

Based on calculation method, the classification criteria are not met

g) reproductive toxicity

Not classified

Based on calculation method, the classification criteria are not met

Safety Data Sheet

- h) STOT-single exposure
Not classified
Based on calculation method, the classification criteria are not met
 - i) STOT-repeated exposure
Not classified
Based on calculation method, the classification criteria are not met
 - j) aspiration hazard
Not classified
Based on calculation method, the classification criteria are not met
- Toxicological information of the main substances found in the product:
- C.I. Disperse Red 60, - CAS: 17418-58-5**
- a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat = 2772 mg/kg bw/day - Source: Registrant's Study Report - Notes: equivalent/smilar to OECD 401
 - b) skin corrosion/irritation:
Test: Skin Irritant - Route: Skin - Species: Rabbit Negative
 - c) serious eye damage/irritation:
Test: Eye Irritant - Route: OCULARE - Species: Rabbit Negative
 - d) Respiratory / skin sensitization:
Test: Skin Sensitization - Route: Skin - Species: Guinea Pig Positive –
Source: Registrant's Study Report - Notes: OECD 406 - in vivo
 - e) germ cell mutagenicity:
Test: Mutagenesis - Route: Oral Negative - Source: Registrant's Study Report - Notes: OECD 471 (in vivo) / OECD473 (in vitro)
 - g) reproductive toxicity:
Test: NOAEL - Route: Oral - Species: Rat Negative 1000 mg/kg bw/day - Source: Registrant's Study Report - Notes: OECD 422
 - i) STOT-repeated exposure:
Test: NOAEL - Route: Oral - Species: Rat Negative 300 mg/kg bw/day - Source: Registrant's Study Report - Notes: OECD 422
- 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one (CAS 2634-33-5)**
- a) acute toxicity
Oral LD50 Rat = 1020 mg/kg (NZ_CCID)
 - b) skin corrosion/irritation:
Not available
 - c) serious eye damage/irritation:
Not available
 - d) Respiratory / skin sensitization:
Not available

SECTION 12: Ecological information

12.1. Toxicity

- Ecotoxicological information of the product:
Not classified for environmental hazards
Based on calculation method, the classification criteria are not met
- Ecotoxicological information of the main substances found in the product:
- C.I. Disperse Red 60, - CAS: 17418-58-5**
- a) Aquatic acute toxicity:

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Endpoint: LC50 - Species: Fish 162 mg/l - Duration h: 96 - Notes: Oncorhynchus mykiss - equivalent/similar to OECD 203

Endpoint: EC50 - Species: Daphnia > 100 mg/l - Duration h: 48 - Notes: Daphnia Magna - OECD 202

Endpoint: EC5 - Species: Daphnia = 100 mg/l - Duration h: 48 - Notes: Daphnia Magna - OECD 202

Endpoint: EC50 - Species: Algae 100 mg/l - Duration h: 72 - Notes: Pseudokirchneriella subcapitata - OECD 201

f) Effects in sewage plants:

Endpoint: EC50 - Species: Active sludges > 1000 mg/l - Notes: fanghi attivi - OECD 209

1,2-benzisothiazol-3(2H)-one (CAS 2634-33-5)

EU - Ecolabel (66/2010) – Detergent Not biodegradable under anaerobic conditions

Ingredient Database - Anaerobic Degradation

EU - Ecolabel (66/2010) – Detergent Inherently biodegradable according to OECD guidelines

Ingredient Database - Aerobic Degradation

12.2. Persistence and degradability

Disperse Red 60, 1-amino-4-hydroxy-2-phenoxyanthraquinone - CAS: 17418-58-5

Biodegradability: Non-readily biodegradable - Test: BOD5/DOC - Duration h: .20D - %: 0.01 - Notes: N.A.

12.3. Bioaccumulative potential

Disperse Red 60, 1-amino-4-hydroxy-2-phenoxyanthraquinone - CAS: 17418-58-5

Bioaccumulation: N.A. Test: BCF - Bioconcentration factor 6.33 - Duration h: N.A. - Notes: aquatic environment - estimated with EUSES 2.1.2

Bioaccumulation: N.A. Test: BCF - Bioconcentration factor 1.54 - Duration h: N.A. - Notes: soil - estimated with EUSES 2.1.2

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects

None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

Dispose of waste product or used containers according to local regulations.

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

SECTION 14: Transport information

Not classified as dangerous in the meaning of transport regulations.

14.1. UN number

ADR-UN number: not applicable

Safety Data Sheet

IATA-Un number:	not applicable
IMDG-Un number:	not applicable
14.2. UN proper shipping name	
ADR-Shipping Name:	not applicable
IATA-Shipping Name:	not applicable
IATA-Technical name:	not applicable
IMDG-Shipping Name:	not applicable
IMDG-Technical name:	not applicable
14.3. Transport hazard class(es)	
ADR-Label:	not applicable
IATA-Label:	not applicable
IMDG-Label:	not applicable
14.4. Packing group	
ADR-Packing Group:	not applicable
IATA-Packing group:	not applicable
IMDG-Packing group:	not applicable
14.5. Environmental hazards	
ADR-Environmental Pollutant:	No
IMDG-Marine pollutant:	No
14.6. Special precautions for user	
ADR-Tunnel Restriction Code:	not applicable
IATA-Passenger Aircraft:	not applicable
IATA-Cargo Aircraft:	not applicable
IMDG-Page:	not applicable
IMDG-EMS:	not applicable
IMDG-MFAG:	not applicable
14.7. Transport in bulk according to Annex II of Marpol and the IBC Code	
No	

SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)
 Dir. 2000/39/EC (Occupational exposure limit values)
 Regulation (EC) n. 1907/2006 (REACH)
 Regulation (EC) n. 1272/2008 (CLP)
 Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
 Regulation (EU) 2015/830
 Regulation (EU) n. 286/2011 (ATP 2 CLP)
 Regulation (EU) n. 618/2012 (ATP 3 CLP)
 Regulation (EU) n. 487/2013 (ATP 4 CLP)
 Regulation (EU) n. 944/2013 (ATP 5 CLP)
 Regulation (EU) n. 605/2014 (ATP 6 CLP)
 Regulation (EU) n. 2015/1221 (ATP 7 CLP)
 Regulation (EU) n. 2016/918 (ATP 8 CLP)
 Regulation (EU) n. 2016/1179 (ATP 9 CLP)
 Regulation (EU) Nr. 2017/776 (10. ATP CLP)
 Regulation (EU) Nr. 2018/699 (11. ATP CLP)
 Regulation (EU) Nr. 2018/1480 (13. ATP CLP)
 Regulation (EU) Nr. 2019/521 (12. ATP CLP)

Safety Data Sheet

Regulation (EU) Nr. 2020/217 (14. ATP CLP)
 Regulation (EU) Nr. 2020/1182 (15. ATP CLP)
 Regulation (EU) Nr. 2021/643 (16. ATP CLP) Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

Restriction 3

Restrictions related to the substances contained:

Restriction 28

Restriction 72

Volatile Organic compounds - VOCs = 1.12 %

Volatile Organic compounds - VOCs = 11.18 g/Kg

Volatile CMR substances = 0.00 %

Halogenated VOCs which are assigned the risk phrase R40 = 0.00 %

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

None

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Key or legend to abbreviations and acronyms

CLP: Classification according to Regulation (EC) No. 1272/2008 (GHS)

Full text of phrases referred to under sections 2 and 3

H302: Harmful if swallowed.

H315: Causes skin irritation

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H400: Very toxic to aquatic life

This safety data sheet has been completely updated in compliance to Regulation 2015/830.

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,
 Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van
 Nostrand Reinold

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It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

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

ATE: Acute toxicity estimates

Safety Data Sheet

ATE Mix	Acute toxicity estimates for Mixtures
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.

Safety Data Sheet

according to Regulation (EC) No 1907/2006, Article 31,
as modified by Regulation (EU) No 2020/879

Edition 3

Printing date : 13/04/2022

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

1.1. Product identifier

Mixture identification:

Trade name: **SWISSJET SP5 Yellow**

Trade code:

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

Recommended use:

Digital printing ink

Uses advised against:

All those who are not listed in the recommended uses

1.3. Details of the supplier of the safety data sheet

Company: Swiss Performance Chemicals

Rothaustasse 61

4132 Muttensz

Switzerland

Competent person responsible for the safety data sheet:

1.4. Emergency telephone number

Tel. +41 (0) 618261031

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)



Warning, Skin Sens. 1B, May cause an allergic skin reaction.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Warning

Hazard statements:

H317 May cause an allergic skin reaction.

Precautionary statements:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P272 Contaminated work clothing should not be allowed out of the workplace

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water and soap.

Safety Data Sheet

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P501 Dispose of waste product or used containers according to local regulations

Special Provisions:

None

Contains

Disperse Yellow 54, 3-hydroxy-2-(3-hydroxy-2-quinolyl)-1H-inden-1-one

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:


No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Components		CLP Classification	Product identifier
C.I. Disperse Yellow 54	3% ≤ x < 5%	 3.4.2/1B Skin Sens. 1B H317	CAS: 17772-51-9 EC: 241-753-7 REACH No.: 01-21200863 53-55-00066
1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	< 0.1%	Acute Tox. 4 H302, Skin Irrit. 2 H315, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Acute 1 H400 [SensSk1: C ≥ 0,05 %]	CAS-No.: 2634-33-5 EC-No.: 220-120-9 Index-No: 613-088-00-6

Note: Upper limit is not included into the range. The full wording of hazard (H) phrases is given in section 16 of the sheet.

Safety Data Sheet

SECTION 4: First aid measures

4.1. Description of first aid measures

Contact with skin:

Wash with plenty of water and soap.

Contact with eyes:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Swallowing:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

None

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

Treatment:

None

SECTION 5: Firefighting measures

5.1. Extinguishing media

Recommended extinguishers:

Water, CO₂, Foam, Chemical powders, according to the materials involved in the fire.

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Safety Data Sheet

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Do not eat or drink while working.

Adopt good working practices, so that the product is not released into the environment.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No occupational exposure limit available

DNEL Exposure Limit Values

N.A.

PNEC Exposure Limit Values

N.A.

8.2. Exposure controls

Eye protection:

Safety glasses for protection against chemicals (EN166).

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Wear suitable gloves tested to EN374.

Respiratory protection:

Not needed for normal use.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

Safety Data Sheet

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Appearance:	liquid	--	--
Colour:	yellow	--	--
Odour:	mild	--	--
Odour threshold:	not available	--	--
pH:	8.5 – 9.5	--	@ 25 °C
Melting point / freezing point:	not available	--	--
Initial boiling point and boiling range:	> 100°C / 212 °F	--	--
Flash point:	> 130 °C / 266 °F	--	--
Evaporation rate:	not available	--	--
Solid/gas flammability:	not applicable	--	Not applicable, it's a liquid
Upper/lower flammability or explosive limits:	not available	--	--
Vapour pressure:	not available	--	--
Vapour density:	not available	--	--
Relative density:	1.090	--	@ 25 °C
Solubility in water:	soluble	--	--
Solubility in oil:	not available	--	--
Partition coefficient (n-octanol/water):	not available	--	--
Auto-ignition temperature:	not available	--	--
Decomposition temperature:	not available	--	--
Viscosity:	4- 6 cPs	--	@ 25 °C
Explosive properties:	not applicable	Regulation (EC) No 1907/2006, Annex VII, Column 2, point 7.11	no chemical groups associated with explosive properties
Oxidizing properties:	not applicable	Regulation (EC) No 1907/2006, Annex VII, Column 2, point 7.13	the product is incapable of reacting exothermically with combustible materials

9.2. Other information

Properties	Value	Method:	Notes:
Miscibility:	miscible	--	--
Fat Solubility:	not available	--	--
Conductivity:	<3000 µS/cm	--	@ 25°C

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SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

None

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological information of the product:

- a) acute toxicity
No data is available on the product itself.
- b) skin corrosion/irritation
Not classified
Based on calculation method, the classification criteria are not met
- c) serious eye damage/irritation
Not classified
Based on calculation method, the classification criteria are not met
- d) respiratory or skin sensitisation
The product is classified: Skin Sens. 1B H317
- e) germ cell mutagenicity
Not classified
Based on calculation method, the classification criteria are not met
- f) carcinogenicity
Not classified
Based on calculation method, the classification criteria are not met
- g) reproductive toxicity
Not classified
Based on calculation method, the classification criteria are not met
- h) STOT-single exposure
Not classified
Based on calculation method, the classification criteria are not met
- i) STOT-repeated exposure
Not classified
Based on calculation method, the classification criteria are not met
- j) aspiration hazard
Not classified
Based on calculation method, the classification criteria are not met

Toxicological information of the main substances found in the product:

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C.I. Disperse Yellow 54, CAS: 17772-51-9

- a) acute toxicity:
 - Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg
 - Test: LD50 - Route: Skin - Species: Rat > 5000 mg/kg
 - b) skin corrosion/irritation:
 - Test: Skin Irritant - Route: Skin - Species: Rat > 5000 mg/kg - Notes: OECD 404
 - Test: Skin Irritant - Route: Skin - Species: Mouse Positive
 - c) serious eye damage/irritation:
 - Test: Eye Irritant - Route: OCULARE - Species: Rabbit Negative - Notes: OECD 405
 - d) Respiratory / skin sensitization:
 - Path: dermal - species: mouse positive - source: ECHA - comments: OECD 429
- 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one (CAS 2634-33-5)**
- a) acute toxicity
 - Oral LD50 Rat = 1020 mg/kg (NZ_CCID)
 - b) skin corrosion/irritation:
 - Not available
 - c) serious eye damage/irritation:
 - Not available
 - d) Respiratory / skin sensitization:
 - Not available

SECTION 12: Ecological information

12.1. Toxicity

C.I. Disperse Yellow 54, CAS: 17772-51-9

- a) Aquatic acute toxicity:
 - Endpoint: LC50 - Species: Fish > 180 mg/l - Duration h: 96 - Notes: Pimephales promelas
 - Endpoint: NOEC - Species: Daphnia > 0.07 mg/l - Duration h: 504 - Notes: Daphnia Magna - OECD 211 (mortalità)
 - Endpoint: NOEC - Species: Daphnia > 0.07 mg/l - Duration h: 504 - Notes: Daphnia Magna - OECD 211 (mortalità)
 - Endpoint: EC50 - Species: Algae > 0.412 mg/l - Duration h: 72 - Notes: Desmodesmus subspicatus - OECD 201
- b) Aquatic chronic toxicity:
 - Endpoint: NOEC - Species: Algae > 0.412 mg/kg - Duration h: 72 - Notes: Desmodesmus subspicatus - OECD 201
- f) Effects in sewage plants:
 - Endpoint: EC50 - Species: Active sludges > 1000 mg/l - Duration h: 3

1,2-benzisothiazol-3(2H)-one (CAS 2634-33-5)

EU - Ecolabel (66/2010) – Detergent Not biodegradable under anaerobic conditions
 Ingredient Database - Anaerobic Degradation
 EU - Ecolabel (66/2010) – Detergent Inherently biodegradable according to OECD guidelines
 Ingredient Database - Aerobic Degradation

12.2. Persistence and degradability

C.I. Disperse Yellow 54, CAS: 17772-51-9

Biodegradability: Non-readily biodegradable - Test: jk01 - Duration h: JK01 - %: 0 - Notes: N.A

12.3. Bioaccumulative potential

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Disperse Yellow 54, 3-hydroxy-2-(3-hydroxy-2-quinolyl)-1H-inden-1-one - CAS: 17772-51-9
 Bioaccumulation: Bioaccumulative - Test: Kow - Partition coefficient 4.8 - Duration h: N.A. - Notes:
 N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects

None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force. Dispose of waste product or used containers according to local regulations. Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

SECTION 14: Transport information

Not classified as dangerous in the meaning of transport regulations.

14.1. UN number

ADR-UN number: not applicable

IATA-Un number: not applicable

IMDG-Un number: not applicable

14.2. UN proper shipping name

ADR-Shipping Name: not applicable

IATA-Shipping Name: not applicable

IATA-Technical name: not applicable

IMDG-Shipping Name: not applicable

IMDG-Technical name: not applicable

14.3. Transport hazard class(es)

ADR-Label: not applicable

IATA-Label: not applicable

IMDG-Label: not applicable

14.4. Packing group

ADR-Packing Group: not applicable

IATA-Packing group: not applicable

IMDG-Packing group: not applicable

14.5. Environmental hazards

ADR-Environmental Pollutant: No

IMDG-Marine pollutant: No

14.6. Special precautions for user

ADR-Tunnel Restriction Code: not applicable

IATA-Passenger Aircraft: not applicable

IATA-Cargo Aircraft: not applicable

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IMDG-Page: not applicable
 IMDG-EMS: not applicable
 IMDG-MFAG: not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
 No

SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)
 Dir. 2000/39/EC (Occupational exposure limit values)
 Regulation (EC) n. 1907/2006 (REACH)
 Regulation (EC) n. 1272/2008 (CLP)
 Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
 Regulation (EU) 2015/830
 Regulation (EU) n. 286/2011 (ATP 2 CLP)
 Regulation (EU) n. 618/2012 (ATP 3 CLP)
 Regulation (EU) n. 487/2013 (ATP 4 CLP)
 Regulation (EU) n. 944/2013 (ATP 5 CLP)
 Regulation (EU) n. 605/2014 (ATP 6 CLP)
 Regulation (EU) n. 2015/1221 (ATP 7 CLP)
 Regulation (EU) n. 2016/918 (ATP 8 CLP)
 Regulation (EU) n. 2016/1179 (ATP 9 CLP)
 Regulation (EU) Nr. 2017/776 (10. ATP CLP)
 Regulation (EU) Nr. 2018/699 (11. ATP CLP)
 Regulation (EU) Nr. 2018/1480 (13. ATP CLP)
 Regulation (EU) Nr. 2019/521 (12. ATP CLP)
 Regulation (EU) Nr. 2020/217 (14. ATP CLP)
 Regulation (EU) Nr. 2020/1182 (15. ATP CLP)
 Regulation (EU) Nr. 2021/643 (16. ATP CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

Restriction 3

Restrictions related to the substances contained:

Restriction 28

Restriction 72

Volatile Organic compounds - VOCs = 1.12 %

Volatile Organic compounds - VOCs = 11.21 g/Kg

Volatile CMR substances = 0.00 %

Halogenated VOCs which are assigned the risk phrase R40 = 0.00 %

Organic Carbon - C = 0.00

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

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None

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Key or legend to abbreviations and acronyms

CLP: Classification according to Regulation (EC) No. 1272/2008 (GHS)

Full text of phrases referred to under sections 2 and 3

H302: Harmful if swallowed.

H315: Causes skin irritation

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H400: Very toxic to aquatic life

This safety data sheet has been completely updated in compliance to Regulation 2015/830.

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,
Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van
Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

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

ATE: Acute toxicity estimates

ATE Mix Acute toxicity estimates for Mixtures

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

CLP: Classification, Labeling, Packaging.

DNEL: Derived No Effect Level.

EINECS: European Inventory of Existing Commercial Chemical Substances.

GefStoffVO: Ordinance on Hazardous Substances, Germany.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO: International Civil Aviation Organization.

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ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.

Safety Data Sheet
According to Regulation (EC) No 1907/2006, Annex II,
Amended by COMMISSION REGULATION (EU) 2020/878,
According to REGULATION (EC) No 1272/2008

Antifreeze coolant

Version 1.0

Issue date: 12-08-2022

Revision date: 12-08-2022

SDS Record Number: CSSS-TCO-010-152210

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

1.1 Product identifier:

Identification on the label/Trade name: Antifreeze coolant
Additional identification: Nanoform is NOT covered by this SDS.
UFI: N/A
Identification of the product: See section 3
Index Number: See section 3
REACH registration No.: See section 3

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

1.2.1 Identified uses:

Coolant.

1.2.2 Uses advised against:

Not available.

1.3 Details of the supplier of the safety data sheet:

Supplier(Only representative): -
Supplier(Manufacturer): Shanwei BYD Industrial Co., Ltd
Address: No. 22 Sanhe Road, Hongcaoyuan District, High-tech Zone, Shanwei City,
Guangdong Province, China
Contact person(E-mail): -
Telephone: +86-755-84835503
Fax: -

1.4 Emergency telephone Number:

+86-755 89888888 Only available during office hours (9:00a.m.-17:30p.m.)

Available outside office hours?

YES

☐

NO

X

Section 2 Hazards Identification

2.1 Classification of the substance or mixture:

2.1.1 Classification of the mixture:

The mixture is classified as following according to REGULATION (EC) No 1272/2008:

REGULATION (EC) No 1272/2008	
Hazard classes/Hazard categories	Hazard statement
Acute Tox. 4	H302

For full text of H- phrases: see section 2.2.

2.2 Label elements:

Hazard pictogram(s):**Signal word:**

Warning

Hazard statement(s):

H302: Harmful if swallowed.

Precautionary statement(s):

P264: Wash hands thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P301 + P312: IF SWALLOWED: Call a POISON CENTER/doctor/... if you feel unwell.

P330: Rinse mouth.

P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental Hazard information (EU)

Not applicable.

2.3 Other hazards:

The mixture does not contain PBT/vPvB substance.

The mixture does not contain endocrine disruptor.

Section 3 Composition/information on ingredients

Substance/Mixture:

Mixture

Ingredient(s):

Chemical Name	Registration No.	CAS No.	EC No.	Concentration	Classification	Specific Concentration limits, M-Factors, Acute Toxicity Estimates (ATE)
Ethylene glycol	N/A	107-21-1	203-473-3	54~54.5%	H302	N/A
Water	N/A	7732-18-5	231-791-2	44.~44.6%	Not Classified	N/A
Sodium 2-ethylhexanoate	N/A	19766-89-3	243-283-8	0.6%	H361	N/A
sodium hydrogen sebacate	N/A	14047-57-5	N/A	0.6%	Not available.	N/A
sodium 4-nitrobenzoate	N/A	3847-57-2	N/A	0.1%	Not available.	N/A
SODIUM METASILICATE NONAHYDRATE	N/A	13517-24-3	N/A	0.1%	H3141B H335	N/A
1H-Benzotriazole	N/A	95-14-7	202-394-1	0.03%	H302 H319 H411	N/A
REACTIVE VIOLET 5	N/A	12226-38-9	235-434-1	0.0005%	Not Classified	N/A

0.7% of the mixture consists of component (s) of unknown toxicity.

0.7% of components with unknown hazards to the aquatic environment.

Section 4 First aid measures

4.1 Description of first aid measures:

In all cases of doubt, or when symptoms persist, seek medical attention.

4.1.1 In case of inhalation:

Keep patient calm, remove to fresh air, seek medical attention.

4.1.2 In case of skin contact:

Wash thoroughly with soap and water.

4.1.3 In case of eyes contact:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

4.1.4 In case of ingestion:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

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

Harmful if swallowed.

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

If skin irritation or rash occurs, get medical advice/attention.

Section 5 Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media: Dry powder

Unsuitable extinguishing media: Not available.

5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released: carbon monoxide, carbon dioxide.

5.3 Advice for firefighters:

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Wear chemical resistant oversuit. Cool containers / tanks with water spray.

Section 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel: Prevent further leakage or spillage if safe to do so. Keep away from Incompatible products.

6.1.2 For emergency responders: Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Ventilate the area. Wear suitable protective clothing.

6.2 Environmental Precautions:

Should not be released into the environment. Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for Containment and Cleaning up:

For small amounts: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr). Dispose of absorbed material in accordance with regulations.

For large amounts: Pump off product. Correctly dispose of recovered product immediately.

6.4 Reference to other sections:

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

Section 7 Handling and storage

7.1 Precautions for safe handling:

7.1.1 Protective measures:

Use only equipment and materials which are compatible with the product. Keep away from Incompatible products. To avoid thermal decomposition, do not overheat. Preferably transfer by pump or gravity.

7.1.2 Advice on general occupational hygiene:

Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities:

Keep container tightly closed and dry; store in a cool place. Protect from air. Protect from atmospheric humidity. Protect contents from the effects of light.

7.3 Specific end use(s):

Not applicable.

Section 8 Exposure Controls/Personal Protection**8.1 Control parameters:****8.1.1 Occupational exposure limits:**

Country	Substance	EC No.	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		
				ppm	mg/m ³	ppm	mg/m ³	Note
EU	Ethylene glycol	203-473-3	107-21-1	20	52	40	104	-

8.1.2 Additional exposure limits under the conditions of use: Not available.

8.1.3 DNEL/DMEL and PNEC-Values: Not available.

8.2 Exposure controls:

8.2.1 Appropriate engineering controls: Ensure adequate ventilation. Apply technical measures to comply with the occupational exposure limits.

8.2.2 Individual protection measures, such as personal protective equipment:

Eye/face protection: Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Skin protection**Hand protection:**

Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) and other Manufacturer's directions for use should be observed because of great diversity of types.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Gas filter for gases/vapours of organic compounds (boiling point >65 °C, e. g. EN 14387 Type A)

Thermal hazards:

Wear suitable protective clothing to prevent heat.

8.2.3 Environmental exposure controls:

Avoid discharge into the environment.

According to local regulations, Federal and official regulations.

Section 9 Physical and chemical properties**9.1 Information on basic physical and chemical properties:**

Appearance:	Liquid
Colour:	Fuchsia
Odour:	Odorless
Odour threshold:	Not available
pH:	7.5~9.5
Melting point/range (°C):	-40°C
Boiling point/range (°C):	108°C
Flash point (°C):	Not applicable
Evaporation rate:	Not available
Flammability limit - lower (%):	Not available
Flammability (solid, gas):	Not available
Ignition temperature (°C):	Not available

Upper/lower explosive limits:	Not available
Vapour pressure (20°C):	Not available
Vapour density:	Not available
Relative Density:	1.05~1.10
Bulk density (kg/m³):	Not available
Water solubility (g/l):	Not available
n-Octanol/Water (log Po/w):	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity, dynamic (mPa.s):	Not available
Explosive properties:	Not available
Oxidising properties:	Not available

9.2. Other information:

Fat solubility(solvent-oil to be specified)	Not available
etc:	
Surface tension:	Not available
Dissociation constant in water(pKa):	Not available
Oxidation-reduction Potential:	Not available
VOC:	0

Section 10 Stability and reactivity

10.1 Reactivity:	The substance is stable under normal storage and handling conditions.
10.2 Chemical stability:	Stable at room temperature in closed containers under normal storage and handling conditions.
10.3 Possibility of hazardous reactions:	No dangerous reactions known.
10.4 Conditions to avoid:	Incompatible materials. Avoid daylight. Disregard of the conditions mentioned may result in undesirable decomposition reactions.
10.5 Incompatible materials:	Strong oxidizing agents.
10.6 Hazardous decomposition products:	Carbon monoxide, carbon dioxide.

Section 11 Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008:

Acute toxicity:	
ATE _{mix} (oral):	Not available
ATE _{mix} (inhalation):	Not available
ATE _{mix} (Dermal):	Not available
LD50(Oral, Rat):	Not available
LC50(Inhalation, Rat):	Not available
LD50(Dermal, Rabbit):	Not available
Skin corrosion/Irritation:	Not classified
Serious eye damage/irritation:	Not classified
Respiratory or skin sensitization:	Not classified
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
STOT- single exposure:	Not classified

STOT-repeated exposure:	Not classified
Aspiration hazard:	May be fatal if swallowed and enters airways.
11.2 Information on other hazards	
Endocrine disrupting properties	The mixture does not contain endocrine disruptor.
Other information	Not applicable

Section 12 Ecological information

12.1 Toxicity:

Ethylene glycol (CAS#107-21-1)

Acute (short-term) toxicity:

LC50(96h, Fish): > 72 860 mg/L

EC50(48h, Crustacea): > 100 mg/L

EL50(72h, Algae/aquatic plants): Not available

Chronic (long-term) toxicity:

NOEC(Fish): Not available

NOEC(Crustacea): >= 1 000 mg/L

NOEC(Algae/aquatic plants): > 100 mg/L

12.2 Persistence and degradability: Not available.

12.3 Bioaccumulative potential: Not available.

12.4 Mobility in soil: Not available.

12.5 Results of PBT and vPvB assessment: The mixture does not contain PBT / vPvB substance.

12.6 Endocrine disrupting properties: The mixture does not contain endocrine disruptor.

12.7 Other adverse effects: Not available.

12.8 Additional information: Not available.

Section 13 Disposal considerations

13.1 Waste treatment methods: Dispose of in accordance with all applicable local and national regulations. Use recovery/recycling where feasible, otherwise incineration is the recommended method of disposal. Empty containers may contain hazardous residues. Do not cut, puncture or weld on or near to the container. Labels should not be removed from containers until they have been cleaned. Contaminated containers must not be treated as household waste. Containers should be cleaned by appropriate methods and then re-used or disposed of by landfill or incineration as appropriate. Do not incinerate closed containers.

Section 14 Transport information

	Land transport (ADR/RID)	Inland waterways (ADN)	Sea transport (IMDG)	Air transport (ICAO/IATA)
14. 1 UN number or ID number	Not regulated	Not regulated	Not regulated	Not regulated
14.2 UN Proper shipping name	Not regulated	Not regulated	Not regulated	Not regulated
14.3 Transport hazard	Not regulated	Not regulated	Not regulated	Not regulated

Class(es)				
14.4 Packing group	Not regulated	Not regulated	Not regulated	Not regulated
14.5 Environmental hazards	No	No	No	No
14.6 Special precautions for user	See section 2.2	See section 2.2	See section 2.2	See section 2.2
14.7 Maritime transport in bulk according to IMO instruments	Not regulated	Not regulated	Not regulated	Not regulated

Section 15 Regulatory information

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

Relevant information regarding authorization: Not applicable.

Relevant information regarding restriction: Not applicable.

Other EU regulations: Employment restrictions concerning young person must be observed.
For use only by technically qualified individuals.

Other National regulations: Not applicable

15.2 Chemical safety assessment YES ☐ NO ☒

Section 16 Other information

16.1 Indication of changes:

Version 1.0 Amended by (EU) 2020/878

16.2 Abbreviations and acronyms:

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

RID: Regulation for rail International transportation of Dangerous goods

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

IMDG: Code international maritime dangerous goods code

ICAO: International Civil Aviation Organization

IATA: International Air Transport Association

UFI: Unique Formula Identifier

LC50: median lethal concentration

EC50: The effective concentration of substance that causes 50% of the maximum response.

NOEC: No Observed Effect Concentration

DNEL: derived no-effect level

PNEC: predicted no-effect concentration

16.3 Key literature references and sources for data

ECHA Registered substances data

16.4 Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

Classification according to Regulation (EC) No. 1272/2008	Classification procedure
Acute Tox. 4 H302	Calculation method

16.5 Relevant H-statements (number and full text):

H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

H361: Suspected of damaging fertility or the unborn child

H411: Toxic to aquatic life with long lasting effects.

16.6 Training instructions:

Not applicable.

16.7 Further information:

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

16.8 Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Author: Hangzhou REACH Technology Group Co., Ltd. **Website:** www.cirs-group.com **Tel:** 0571-87206555 **Email:** info@cirs-group.com

GRAVITEX PLUS UNDERBODY COATING - BLACK

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
SDS Ref. (EU): GRANB1-SDS
Issue date: 2/24/2015 Revision date: 1/28/2023 Supersedes version of: 8/27/2021 Version: 7.1

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

1.1. Product identifier

Product form : Mixture
Trade name : GRAVITEX PLUS HS STONECHIP PROTECTOR - BLACK / GREY 1 LT
UFI : 4JA0-K0KA-H00Q-ETXN
Product code : GRA/NB1
Product group : Coating

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

1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use
Use of the substance/mixture : Coatings and paints, thinners, paint removers
Function or use category : Coating

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer

U-POL Limited
Denington Road
NN8 2QH Wellingborough - United Kingdom
T +44 (0) 1933 230310
technicalsupport@u-pol.com - www.u-pol.com

Importer

U-POL Netherlands B.V.
Hoorgoordreef 15
1101BA Amsterdam - Netherlands
T +31 20 240 2216
technicalsupport@u-pol.com - www.u-pol.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: +44 (0) 870 8200418 (24 hrs)

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	NHS England, Scotland & Wales	-	Call 111 or a Doctor	In Northern Ireland, contact your local GP or pharmacist during normal hours (www.gpoutofhours.hscni.net)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 3 H226
Skin corrosion/irritation, Category 2 H315
Serious eye damage/eye irritation, Category 2 H319
Skin sensitisation, Category 1 H317

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Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation H335
Specific target organ toxicity — Repeated exposure, Category 2 H373
Hazardous to the aquatic environment — Chronic Hazard, Category 3 H412
Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects

Flammable liquid and vapour. May cause damage to organs through prolonged or repeated exposure. May cause respiratory irritation. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



Signal word (CLP)

: Warning

Contains

: Xylene; reaction mass of ethylbenzene, m-xylene and p-xylene; 4-chlorobenzotrifluoride

Hazard statements (CLP)

: H226 - Flammable liquid and vapour.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation.
H373 - May cause damage to organs (hearing organs) through prolonged or repeated exposure (inhalation).
H412 - Harmful to aquatic life with long lasting effects.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 - Avoid breathing vapours, spray, fume.
P264 - Wash hands thoroughly after handling.
P280 - Wear eye protection, protective clothing, protective gloves.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.

Precautionary statements (CLP)

: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 - Avoid breathing vapours, spray, fume.
P264 - Wash hands thoroughly after handling.
P280 - Wear eye protection, protective clothing, protective gloves.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.

2.3. Other hazards

Component	
Xylene (1330-20-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Ethylbenzene (100-41-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
2-methylpropan-1-ol; iso-butanol (78-83-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

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3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
reaction mass of ethylbenzene, m-xylene and p-xylene	(EC-No.) 905-562-9 (REACH-no) 01-2119555267-33	10 – 20	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304
Xylene substance with a Community workplace exposure limit (Note C)	(CAS-No.) 1330-20-7 (EC-No.) 215-535-7 (EC Index-No.) 601-022-00-9 (REACH-no) 01-2119488216-32	10 – 20	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304
Ethylbenzene substance with a Community workplace exposure limit	(CAS-No.) 100-41-4 (EC-No.) 202-849-4 (EC Index-No.) 601-023-00-4 (REACH-no) 01-2119489370-35	5 – 10	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 STOT RE 2, H373 Asp. Tox. 1, H304
kieselguhr, soda ash flux calcined	(CAS-No.) 68855-54-9 (EC-No.) 272-489-0 (REACH-no) 01-2119488518-22	< 10	STOT RE 2, H373
4-chlorobenzotrifluoride	(CAS-No.) 98-56-6 (EC-No.) 202-681-1 (REACH-no) 01-2119857280-40	3 – 5	Flam. Liq. 3, H226 Skin Sens. 1B, H317 Aquatic Chronic 2, H411
2-methylpropan-1-ol; iso-butanol	(CAS-No.) 78-83-1 (EC-No.) 201-148-0 (EC Index-No.) 603-108-00-1 (REACH-no) 01-2119484609-23	0.3 – 2.5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H336 STOT SE 3, H335
castor oil, sulphated, sodium salt	(CAS-No.) 68187-76-8 (EC-No.) 269-123-7 (REACH-no) 01-2119943732-36	0.3 – 2.5	Eye Irrit. 2, H319

Note C : Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: 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.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction. Repeated exposure may cause skin dryness or cracking.
Symptoms/effects after eye contact	: Eye irritation.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
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5.2. Special hazards arising from the substance or mixture

Fire hazard	: Flammable liquid and vapour.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: Safety glasses. Protective clothing. Gloves.
Emergency procedures	: Ventilate spillage area. No open flames, no sparks, and no smoking. Do not breathe vapours, spray, fume. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Contain released product. Collect spillage.
Methods for cleaning up	: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Do not breathe spray, vapours, fume. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes.
- Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Ground/bond container and receiving equipment.
- Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.
- Storage temperature : < 25 °C
- Storage area : Store in well ventilated area.
- Special rules on packaging : Keep only in original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

kieselguhr, soda ash flux calcined (68855-54-9)

Ireland - Occupational Exposure Limits

Local name	Diatomaceous earth, natural, respirable dust
OEL TWA [1]	1.2 mg/m ³
Regulatory reference	Chemical Agents Code of Practice 2020

United Kingdom - Occupational Exposure Limits

WEL TWA (OEL TWA) [1]	1.2 mg/m ³
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Xylene (1330-20-7)

EU - Indicative Occupational Exposure Limit (IOEL)

Local name	Xylene, mixed isomers, pure
IOEL TWA	221 mg/m ³
IOEL TWA [ppm]	50 ppm
IOEL STEL	442 mg/m ³
IOEL STEL [ppm]	100 ppm
Notes	Skin Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC COMMISSION DIRECTIVE 2000/39/EC

Ireland - Occupational Exposure Limits

Local name	Xylene, mixed isomers
OEL TWA [1]	221 mg/m ³

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Xylene (1330-20-7)	
OEL TWA [2]	50 ppm
OEL STEL	442 mg/m³
OEL STEL [ppm]	100 ppm
Notes (IE)	Sk (Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body), IOELV (Indicative Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2020
Ireland - Biological limit values	
Local name	Xylene
BLV	1.5 g/g creatinine Parameter: methylhippuric acids - Medium: urine - Sampling time: End of Shift
Regulatory reference	Biological Monitoring Guidelines (HSA, 2011)
United Kingdom - Occupational Exposure Limits	
Local name	Xylene
WEL TWA (OEL TWA) [1]	220 mg/m³
WEL TWA (OEL TWA) [2]	50 ppm
WEL STEL (OEL STEL)	441 mg/m³
WEL STEL (OEL STEL) [ppm]	100 ppm
Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
United Kingdom - Biological limit values	
Local name	Xylene, o-, m-, p- or mixed isomers
BMGV	650 mmol/mol Creatinine Parameter: methyl hippuric acid - Medium: urine - Sampling time: Post shift
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
2-methylpropan-1-ol; iso-butanol (78-83-1)	
Ireland - Occupational Exposure Limits	
Local name	Isobutyl alcohol [2-Methylpropan-1-ol]
OEL TWA [1]	150 mg/m³
OEL TWA [2]	50 ppm
Regulatory reference	Chemical Agents Code of Practice 2020
United Kingdom - Occupational Exposure Limits	
Local name	2-Methylpropan-1-ol
WEL TWA (OEL TWA) [1]	154 mg/m³
WEL TWA (OEL TWA) [2]	50 ppm
WEL STEL (OEL STEL)	231 mg/m³
WEL STEL (OEL STEL) [ppm]	75 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

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Ethylbenzene (100-41-4)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Ethylbenzene
IOEL TWA	442 mg/m ³
IOEL TWA [ppm]	100 ppm
IOEL STEL	884 mg/m ³
IOEL STEL [ppm]	200 ppm
Notes	Skin Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC COMMISSION DIRECTIVE 2000/39/EC
Ireland - Occupational Exposure Limits	
Local name	Ethylbenzene
OEL TWA [1]	442 mg/m ³
OEL TWA [2]	100 ppm
OEL STEL	884 mg/m ³
OEL STEL [ppm]	200 ppm
Notes (IE)	Sk (Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body), IOELV (Indicative Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2020
Ireland - Biological limit values	
Local name	Ethyl benzene
BLV	0.7 g/g creatinine Parameter: mandelic acid and phenylglyoxylic acid - Medium: urine - Sampling time: End of shift at end of workweek - Notations: Ns (Non-specific), Sq (Semi-quantitative) Parameter: ethylbenzene - Medium: end-exhaled air - Sampling time: Not critical - Notations: Sq (Semi-quantitative)
Regulatory reference	Biological Monitoring Guidelines (HSA, 2011)
United Kingdom - Occupational Exposure Limits	
Local name	Ethylbenzene
WEL TWA (OEL TWA) [1]	441 mg/m ³
WEL TWA (OEL TWA) [2]	100 ppm
WEL STEL (OEL STEL)	552 mg/m ³
WEL STEL (OEL STEL) [ppm]	125 ppm
Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

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8.1.4. DNEL and PNEC

4-chlorobenzotrifluoride (98-56-6)	
DNEL/DMEL (Workers)	
Acute - local effects, dermal	17.6 µg/cm²
Long-term - systemic effects, dermal	0.4 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1.025 mg/m³
DNEL/DMEL (General population)	
Acute - local effects, dermal	8.8 µg/cm²
Long-term - systemic effects, oral	0.2 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.255 mg/m³
Long-term - systemic effects, dermal	0.2 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	2 µg/l
PNEC aqua (marine water)	0.2 µg/l
PNEC aqua (intermittent, freshwater)	20 µg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.0216 mg/kg dwt
PNEC sediment (marine water)	0.00216 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.0258 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	0.032 mg/l

reaction mass of ethylbenzene, m-xylene and p-xylene	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	289 mg/m³
Acute - local effects, inhalation	289 mg/m³
Long-term - systemic effects, dermal	180 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	77 mg/m³
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	174 mg/m³
Acute - local effects, inhalation	174 mg/m³
Long-term - systemic effects, oral	1.6 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	14.8 mg/m³
Long-term - systemic effects, dermal	108 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.327 mg/l
PNEC aqua (marine water)	0.327 mg/l
PNEC aqua (intermittent, freshwater)	0.327 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	12.46 mg/kg dwt
PNEC sediment (marine water)	12.46 mg/kg dwt

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PNEC (Soil)	
PNEC soil	2.31 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	6.58 mg/l

Xylene (1330-20-7)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	289 mg/m³
Acute - local effects, inhalation	289 mg/m³
Long-term - systemic effects, dermal	180 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	77 mg/m³
Long-term - local effects, inhalation	77 mg/m³
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	174 mg/m³
Acute - local effects, inhalation	174 mg/m³
Long-term - systemic effects, oral	1.6 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	14.8 mg/m³
Long-term - systemic effects, dermal	108 mg/kg bodyweight/day
Long-term - local effects, inhalation	65.3 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	0.327 mg/l
PNEC aqua (marine water)	0.327 mg/l
PNEC aqua (intermittent, freshwater)	0.327 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	12.46 mg/kg dwt
PNEC sediment (marine water)	12.46 mg/kg dwt
PNEC (Soil)	
PNEC soil	2.31 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	6.58 mg/l

2-methylpropan-1-ol; iso-butanol (78-83-1)	
DNEL/DMEL (Workers)	
Long-term - local effects, inhalation	310 mg/m³
DNEL/DMEL (General population)	
Long-term - local effects, inhalation	55 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	0.4 mg/l
PNEC aqua (marine water)	0.04 mg/l
PNEC aqua (intermittent, freshwater)	11 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	1.52 mg/kg dwt

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PNEC sediment (marine water)	0.152 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.0699 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	10 mg/l

Ethylbenzene (100-41-4)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	293 mg/m ³
Long-term - systemic effects, dermal	180 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	77 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	1.6 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	15 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0.1 mg/l
PNEC aqua (marine water)	0.01 mg/l
PNEC aqua (intermittent, freshwater)	0.1 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	13.7 mg/kg dwt
PNEC sediment (marine water)	1.37 mg/kg dwt
PNEC (Soil)	
PNEC soil	2.68 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	0.02 g/kg food
PNEC (STP)	
PNEC sewage treatment plant	9.6 mg/l

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Gloves. Protective clothing. Safety glasses.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

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Eye protection:

Safety glasses

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

Other skin protection

Materials for protective clothing:

Impermeable clothing

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Black.
Appearance	: Viscous. Liquid.
Odour	: characteristic.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not applicable
Explosive limits	: Not available
Lower explosive limit (LEL)	: Not available
Upper explosive limit (UEL)	: Not available
Flash point	: 26 °C
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: 400 (375 – 425) mm ² /s
Viscosity, dynamic	: 4000 (3750 – 4250) cP
Solubility	: insoluble in water. soluble in most organic solvents.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: 1.01 (1 – 1.02) g/cm ³
Relative density	: Not available
Relative vapour density at 20 °C	: Not available

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Particle size	: Not applicable
Particle size distribution	: Not applicable
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle aggregation state	: Not applicable
Particle agglomeration state	: Not applicable
Particle specific surface area	: Not applicable
Particle dustiness	: Not applicable

9.2. Other information

VOC content : 448 g/l

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC content : 448 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapour.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

castor oil, sulphated, sodium salt (68187-76-8)

LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method), Guideline: EU Method B.1 tris (Acute Oral Toxicity - Acute Toxic Class Method), Guideline: EPA OPPTS 870.1100 (Acute Oral Toxicity)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: EU Method B.3 (Acute Toxicity (Dermal)), Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EPA OPPTS 870.1200 (Acute Dermal Toxicity)

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carbon black (1333-86-4)	
LD50 oral rat	> 8000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LC50 Inhalation - Rat	> 4.6 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Experimental value, Inhalation (dust))

kieselguhr, soda ash flux calcined (68855-54-9)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LC50 Inhalation - Rat	> 2.6 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
LC50 Inhalation - Rat (Dust/Mist)	> 2.6 mg/l/4h (4 h, OECD Guideline 403 (Acute Inhalation Toxicity), rat, male/female, Experimental value)

dolomite (16389-88-1)	
LD50 oral rat	> 2000 mg/kg (OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure), rat, female, Experimental value)

magnesium carbonate (546-93-0)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method), Guideline: EU Method B.1 bis (Acute Oral Toxicity - Fixed Dose Procedure)

4-chlorobenzotrifluoride (98-56-6)	
LD50 dermal rabbit	> 3300 mg/kg bodyweight Animal: rabbit
LC50 Inhalation - Rat	> 32.03 mg/l air Animal: rat, Guideline: EU Method B.2 (Acute Toxicity (Inhalation)), Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)

magnesium hydroxide (1309-42-8)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method), Guideline: EPA OPPTS 870.1100 (Acute Oral Toxicity), Guideline: EU Method B.1 tris (Acute Oral Toxicity - Acute Toxic Class Method)
LC50 Inhalation - Rat	> 2.1 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation)), Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity)

isopentane; 2-methylbutane (78-78-4)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Guideline: EU Method B.1 (Acute Toxicity (Oral))
LC50 Inhalation - Rat	> 25.3 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)

reaction mass of ethylbenzene, m-xylene and p-xylene	
LD50 oral rat	3523 mg/kg (EU Method B.1 (Acute Toxicity (Oral)), rat, male)
LD50 dermal rabbit	12126 mg/kg bodyweight Animal: rabbit, Animal sex: male
LC50 Inhalation - Rat [ppm]	6350 ppm/4h (4 h, EU Method B.2 (Acute Toxicity (Inhalation)), rat, male, Inhalation, vapours)

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Xylene (1330-20-7)	
LD50 oral rat	3523 mg/kg bodyweight (Equivalent or similar to EU Method B.1: Acute Toxicity (Oral), Rat, Male, Experimental value, Oral, 14 day(s))
LD50 dermal rat	12126 mg/kg (Non-GLP, read-across from supporting substance, single dermal dose under occlusion followed by observation for 14 days)
LD50 dermal rabbit	12126 mg/kg bodyweight Animal: rabbit, Animal sex: male
LC50 Inhalation - Rat [ppm]	6700 ppm/4h (EU Method B.2 (Acute Toxicity (Inhalation)), 4h, rat, male)

calcium carbonate (471-34-1)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method), Guideline: EU Method B.1 bis (Acute Oral Toxicity - Fixed Dose Procedure)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))
LC50 Inhalation - Rat	> 3 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation)), Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity)
LC50 Inhalation - Rat (Dust/Mist)	> 3 mg/l/4h (4 h, OECD Guidelines 403 (Acute Toxicity Inhalation), rat, male/female, Experimental value)

quartz (14808-60-7)	
LD50 oral rat	> 500 mg/kg

2-methylpropan-1-ol; iso-butanol (78-83-1)	
LD50 oral rat	> 2830 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 18.18 mg/l air (6 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s))
LC50 Inhalation - Rat (Vapours)	24.6 mg/l/4h (Other, 4 h, Rat, Male/female, Experimental value, Inhalation (vapours))

cyclohexanone oxime (100-64-1)	
LD50 oral rat	883 mg/kg (rat, female)
LD50 dermal rabbit	> 5000 mg/kg (OECD Guideline 402 (Acute Dermal Toxicity), rabbit, male/female)

Ethylbenzene (100-41-4)	
LD50 oral rat	3500 mg/kg (Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	15432 mg/kg bodyweight (24 h, Rabbit, Male, Experimental value, Dermal)
LC50 Inhalation - Rat	17.8 mg/l (4 h, Rat, Male, Experimental value, Inhalation (vapours))

naphtha (petroleum), hydrotreated heavy (64742-48-9)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit	> 5000 mg/kg
LC50 Inhalation - Rat	> 4951 mg/m³

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talc (14807-96-6)	
LD50 oral rat	> 5000 mg/kg bodyweight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Male, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 2.1 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 15 day(s))

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

4-chlorobenzotrifluoride (98-56-6)	
IARC group	2B - Possibly carcinogenic to humans

reaction mass of ethylbenzene, m-xylene and p-xylene	
IARC group	2B - Possibly carcinogenic to humans

Xylene (1330-20-7)	
IARC group	3 - Not classifiable

Ethylbenzene (100-41-4)	
IARC group	2B - Possibly carcinogenic to humans

Reproductive toxicity	: Not classified
STOT-single exposure	: May cause respiratory irritation.

isopentane; 2-methylbutane (78-78-4)	
STOT-single exposure	May cause drowsiness or dizziness.

reaction mass of ethylbenzene, m-xylene and p-xylene	
STOT-single exposure	May cause respiratory irritation.

Xylene (1330-20-7)	
STOT-single exposure	May cause respiratory irritation.

2-methylpropan-1-ol; iso-butanol (78-83-1)	
STOT-single exposure	May cause drowsiness or dizziness. May cause respiratory irritation.

naphtha (petroleum), hydrotreated heavy (64742-48-9)	
STOT-single exposure	May cause drowsiness or dizziness.

STOT-repeated exposure	: May cause damage to organs (hearing organs) through prolonged or repeated exposure (inhalation).
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castor oil, sulphated, sodium salt (68187-76-8)	
NOAEL (oral, rat, 90 days)	5780 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
kieselguhr, soda ash flux calcined (68855-54-9)	
NOAEL (oral, rat, 90 days)	3737.9 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure (inhalation).
4-chlorobenzotrifluoride (98-56-6)	
LOAEL (oral, rat, 90 days)	150 mg/kg bodyweight Animal: rat
magnesium hydroxide (1309-42-8)	
NOAEL (oral, rat, 90 days)	≥ 1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other:The EPA Health Effects Test Guidelines, OPPTS 870.3650, Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test, July 2000, Guideline: other:Commission Regulation (EC) No 440/2008 Part B:Methods for the Determination of Toxicity and other Health Effects; B.7: "Repeated Dose (28 days) Toxicity (oral)". Official Journal of the European Union No. L142, May 2008, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents), Guideline: other:EPA OPPTS 870.3050(repeated Dose 28-day oral toxicity study in rodents)
isopentane; 2-methylbutane (78-78-4)	
NOAEC (inhalation, rat, vapour, 90 days)	30 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study), Guideline: other: U.S. EPA/FIFRA Guidelines §82-4, Guideline: EPA OTS 798.2450 (90-Day Inhalation Toxicity), Guideline: other:U.S. EPA/TSCA Guidelines 40 CFR §798.6059, and §798.6059, 798.6200, 798.6400, Guideline: other:EU Guideline 87/302/EEC
reaction mass of ethylbenzene, m-xylene and p-xylene	
LOAEL (oral, rat, 90 days)	150 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), Guideline: EPA OPP 82-1 (90-Day Oral Toxicity)
NOAEL (oral, rat, 90 days)	150 mg/kg bodyweight/day (OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), female)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Xylene (1330-20-7)	
LOAEL (oral, rat, 90 days)	150 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), Guideline: EPA OPP 82-1 (90-Day Oral Toxicity)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
calcium carbonate (471-34-1)	
NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

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2-methylpropan-1-ol; iso-butanol (78-83-1)	
NOAEL (oral, rat, 90 days)	> 1450 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

cyclohexanone oxime (100-64-1)	
NOAEL (oral, rat, 90 days)	2.5 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Ethylbenzene (100-41-4)	
NOAEL (oral, rat, 90 days)	75 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
STOT-repeated exposure	May cause damage to organs (hearing sense) through prolonged or repeated exposure.

Aspiration hazard : Not classified

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Viscosity, kinematic	400 (375 – 425) mm ² /s

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute) : Not classified
Hazardous to the aquatic environment, long-term (chronic) : Harmful to aquatic life with long lasting effects.

castor oil, sulphated, sodium salt (68187-76-8)	
LC50 - Fish [1]	> 100 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	≈ 100 mg/l Test organisms (species): Daphnia magna
NOEC (chronic)	> 100 mg/l Test organisms (species): other:Daphnid Duration: '21 d'
NOEC chronic fish	> 100 mg/l Test organisms (species): Duration: '28 d'
NOEC chronic crustacea	100 mg/l
NOEC chronic algae	10 mg/l

4-chlorobenzotrifluoride (98-56-6)	
LC50 - Fish [1]	3 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 72h - Algae [1]	> 0.41 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

reaction mass of ethylbenzene, m-xylene and p-xylene	
LC50 - Fish [1]	2.6 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	> 3.4 mg/l Test organisms (species): Ceriodaphnia dubia

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EC50 72h - Algae [1]	1.3 mg/l
NOEC chronic fish	> 1.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '56 d'

Xylene (1330-20-7)

LC50 - Fish [1]	2.6 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	> 3.4 mg/l Test organisms (species): Ceriodaphnia dubia
EC50 72h - Algae [1]	2.2 mg/l
ErC50 algae	4.36 mg/l (OECD 201: Alga, Growth Inhibition Test, 73 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
NOEC chronic fish	> 1.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '56 d'

2-methylpropan-1-ol; iso-butanol (78-83-1)

LC50 - Fish [1]	1430 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	1100 mg/l Test organisms (species): Daphnia pulex
ErC50 algae	1799 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
NOEC (chronic)	20 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

Ethylbenzene (100-41-4)

LC50 - Fish [1]	5.1 mg/l Test organisms (species): Menidia menidia
EC50 - Crustacea [1]	1.8 – 2.4 mg/l (US EPA, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
EC50 72h - Algae [1]	4.9 mg/l Test organisms (species): Skeletonema costatum
EC50 72h - Algae [2]	5.4 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	7.7 mg/l Test organisms (species): Skeletonema costatum
EC50 96h - Algae [2]	3.6 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
LOEC (chronic)	1.7 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'
NOEC (chronic)	0.96 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'

12.2. Persistence and degradability

castor oil, sulphated, sodium salt (68187-76-8)

Persistence and degradability	Readily biodegradable in water.
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kieselguhr, soda ash flux calcined (68855-54-9)

Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

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4-chlorobenzotrifluoride (98-56-6)	
Persistence and degradability	Biodegradability in water: no data available.

Xylene (1330-20-7)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.

2-methylpropan-1-ol; iso-butanol (78-83-1)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.

Ethylbenzene (100-41-4)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.44 g O ₂ /g substance
Chemical oxygen demand (COD)	2.1 g O ₂ /g substance
ThOD	3.17 g O ₂ /g substance

12.3. Bioaccumulative potential	
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castor oil, sulphated, sodium salt (68187-76-8)	
Partition coefficient n-octanol/water (Log Pow)	1

kieselguhr, soda ash flux calcined (68855-54-9)	
Bioaccumulative potential	No test data of component(s) available.

4-chlorobenzotrifluoride (98-56-6)	
Partition coefficient n-octanol/water (Log Pow)	3.6
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

Xylene (1330-20-7)	
BCF - Fish [1]	7.2 – 25.9 (56 day(s), Oncorhynchus mykiss, Flow-through system, Fresh water, Read-across)
Partition coefficient n-octanol/water (Log Pow)	3.2 (Read-across, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

2-methylpropan-1-ol; iso-butanol (78-83-1)	
Partition coefficient n-octanol/water (Log Pow)	1 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

Ethylbenzene (100-41-4)	
BCF - Fish [1]	1 (6 week(s), Oncorhynchus kisutch, Flow-through system, Salt water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	3.6 (Experimental value, EU Method A.8: Partition Coefficient, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

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12.4. Mobility in soil

Xylene (1330-20-7)

Surface tension	28.01 – 29.76 mN/m (25 °C)
Partition coefficient n-octanol/water (Log Koc)	2.73 (log Koc, Equivalent or similar to OECD 121, Read-across)
Ecology - soil	Low potential for adsorption in soil. May be harmful to plant growth, blooming and fruit formation.

2-methylpropan-1-ol; iso-butanol (78-83-1)

Surface tension	69.7 mN/m (20 °C, 1 g/l, OECD 115: Surface Tension of Aqueous Solutions)
Partition coefficient n-octanol/water (Log Koc)	0.47 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil.

Ethylbenzene (100-41-4)

Surface tension	71.2 mN/m (23 °C, 0.058 g/l, EU Method A.5: Surface tension)
Partition coefficient n-octanol/water (Log Koc)	2.71 (log Koc, PCKOCWIN v1.66, QSAR)
Ecology - soil	Low potential for adsorption in soil. Toxic to soil organisms.

12.5. Results of PBT and vPvB assessment

Component

Xylene (1330-20-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Ethylbenzene (100-41-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
2-methylpropan-1-ol; iso-butanol (78-83-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information	: Flammable vapours may accumulate in the container.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number or ID number

UN-No. (ADR)	: UN 1263
UN-No. (IMDG)	: UN 1263

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UN-No. (IATA) : UN 1263
UN-No. (ADN) : UN 1263
UN-No. (RID) : UN 1263

14.2. UN proper shipping name

Proper Shipping Name (ADR) : PAINT
Proper Shipping Name (IMDG) : PAINT
Proper Shipping Name (IATA) : Paint
Proper Shipping Name (ADN) : PAINT
Proper Shipping Name (RID) : PAINT
Transport document description (ADR) : UN 1263 PAINT, 3, III, (D/E)
Transport document description (IMDG) : UN 1263 PAINT, 3, III
Transport document description (IATA) : UN 1263 Paint, 3, III
Transport document description (ADN) : UN 1263 PAINT, 3, III
Transport document description (RID) : UN 1263 PAINT, 3, III

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 3
Danger labels (ADR) : 3

:



IMDG

Transport hazard class(es) (IMDG) : 3
Danger labels (IMDG) : 3

:



IATA

Transport hazard class(es) (IATA) : 3
Danger labels (IATA) : 3

:



ADN

Transport hazard class(es) (ADN) : 3
Danger labels (ADN) : 3

:



RID

Transport hazard class(es) (RID) : 3
Danger labels (RID) : 3

:



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14.4. Packing group

Packing group (ADR)	: III
Packing group (IMDG)	: III
Packing group (IATA)	: III
Packing group (ADN)	: III
Packing group (RID)	: III

14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR)	: F1
Special provisions (ADR)	: 163, 367, 650
Limited quantities (ADR)	: 5I
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P001, IBC03, LP01, R001
Special packing provisions (ADR)	: PP1
Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T2
Portable tank and bulk container special provisions (ADR)	: TP1, TP29
Tank code (ADR)	: LGBF
Vehicle for tank carriage	: FL
Transport category (ADR)	: 3
Special provisions for carriage - Packages (ADR)	: V12
Special provisions for carriage - Operation (ADR)	: S2
Hazard identification number (Kemler No.)	: 30
Orange plates	:



Tunnel restriction code (ADR)	: D/E
EAC code	: •3YE

Transport by sea

Special provisions (IMDG)	: 163, 223, 367, 955
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P001, LP01
Special packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T2
Tank special provisions (IMDG)	: TP1, TP29
EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-E
Stowage category (IMDG)	: A
Properties and observations (IMDG)	: Miscibility with water depends upon the composition.

Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y344
PCA limited quantity max net quantity (IATA)	: 10L
PCA packing instructions (IATA)	: 355
PCA max net quantity (IATA)	: 60L
CAO packing instructions (IATA)	: 366
CAO max net quantity (IATA)	: 220L
Special provisions (IATA)	: A3, A72, A192
ERG code (IATA)	: 3L

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Inland waterway transport

Classification code (ADN)	: F1
Special provisions (ADN)	: 163, 367, 650
Limited quantities (ADN)	: 5 L
Excepted quantities (ADN)	: E1
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01
Number of blue cones/lights (ADN)	: 0

Rail transport

Classification code (RID)	: F1
Special provisions (RID)	: 163, 367, 650
Limited quantities (RID)	: 5L
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P001, IBC03, LP01, R001
Special packing provisions (RID)	: PP1
Mixed packing provisions (RID)	: MP19
Portable tank and bulk container instructions (RID)	: T2
Portable tank and bulk container special provisions (RID)	: TP1, TP29
Tank codes for RID tanks (RID)	: LGBF
Transport category (RID)	: 3
Special provisions for carriage – Packages (RID)	: W12
Colis express (express parcels) (RID)	: CE4
Hazard identification number (RID)	: 30

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:		
Reference code	Applicable on	Entry title or description
3(a)	GRAVITEX PLUS UNDERBODY COATING - BLACK ; Xylene ; Ethylbenzene ; reaction mass of ethylbenzene, m-xylene and p-xylene ; 4-chlorobenzotrifluoride ; isobutanol	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F
3(b)	GRAVITEX PLUS UNDERBODY COATING - BLACK ; Xylene ; Ethylbenzene ; castor oil, sulphated, sodium salt ; reaction mass of ethylbenzene, m-xylene and p-xylene ; 4-chlorobenzotrifluoride ; isobutanol	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
3(c)	GRAVITEX PLUS UNDERBODY COATING - BLACK ; 4-chlorobenzotrifluoride	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1
40.	GRAVITEX PLUS UNDERBODY COATING - BLACK ; Xylene ; Ethylbenzene ; reaction mass of ethylbenzene, m-xylene and p-xylene ; 4-chlorobenzotrifluoride ; isobutanol	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.

Contains no substance on the REACH candidate list

Contains organic solvents ($\geq 1\%$)

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

GRAVITEX PLUS UNDERBODY COATING - BLACK

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

VOC content : 448 g/l

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BLV	Biological limit value
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
EN	European Standard
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

Full text of H- and EUH-statements:	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4

GRAVITEX PLUS UNDERBODY COATING - BLACK

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1B	Skin sensitisation, category 1B
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

For professional use only.

The information contained within this Safety Data Sheet (SDS) is believed to be correct as of the date issued however it is subject to change from time to time. It does not purport to be all inclusive or exhaustive and shall only be used as a guide. U-POL makes no warranties, expressed or implied, including but not limited to, any implied warranty of fitness for a given purpose or usage. It is the Buyers responsibility to ensure the suitability of the products for their own use and to check the information is up to date. U-POL cannot be held responsible for the suitability of use for any of its products, considering the wide range of factors such as application, substrates and handling methods. Since these conditions of use are outside of our control, the company shall not be held liable for any damage resulting from handling or from contact with the product detailed. Moreover, addition of reducers, hardeners or other additives over and above U-POL's recommendations for use, may substantially alter the composition and hazards of the product. U-POL data sheets are available via the U-POL website at WWW.U-POL.COM.



DRIVING SURFACE PERFECTION

ISOPON P.40 BODY FILLER FOR HOLES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Product Reference code: according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
SDS Ref. (EU): P40F-R-SDS
Issue date: 26/02/2015 Revision date: 15/08/2022 Supersedes version of: 25/08/2020 Version: 8.0

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

1.1. Product identifier

Product form : Mixture
Trade name : ISOPON P.40 BODY FILLER FOR HOLES
Product code : P40/S, P40/1
Type of product : Fillers
Product group : Bodyfiller

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

1.2.1. Relevant identified uses

Intended for general public
Main use category : Industrial use, Professional use, Consumer use
Use of the substance/mixture : Fillers, putties, plasters, modelling clay
Function or use category : Fillers

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer

U-POL Limited Ltd
Denington Road
GB- NN8 2QH Wellingborough – Northamptonshire
United Kingdom
T +44 (0) 1933 230310
technicalsupport@u-pol.com - www.u-pol.com

Importer

U-POL Netherlands B.V. B.V.
Hoorgoordreef 15
NL- 1101BA Amsterdam
Netherlands
T +31 20 240 2216
technicalsupport@u-pol.com - www.u-pol.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: +44 (0) 870 8200418 (24 hrs)

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	NHS England, Scotland & Wales	-	Call 111 or a Doctor	In Northern Ireland, contact your local GP or pharmacist during normal hours (www.gpoutofhours.hscni.net)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, Category 2 H315
Serious eye damage/eye irritation, Category 2 H319
Reproductive toxicity, Category 2 H361
Specific target organ toxicity — Repeated exposure, Category 1 H372

ISOPON P.40 BODY FILLER FOR HOLES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. May cause respiratory irritation. Causes skin irritation. Causes serious eye irritation. Harmful to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Contains

: styrene

Hazard statements (CLP)

: H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H361 - Suspected of damaging the unborn child.

H372 - Causes damage to organs (hearing organs) through prolonged or repeated exposure (inhalation).

Precautionary statements (CLP)

: P201 - Obtain special instructions before use.

P264 - Wash hands thoroughly after handling.

P280 - Wear eye protection, protective gloves, protective clothing.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405 - Store locked up.

P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

EUH-statements

: EUH208 - Contains reaction mass of 2,2'-[(4-methylphenyl)imino]bisethanol and Ethanol, 2-[[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino]-. May produce an allergic reaction.

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component	
styrene (100-42-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

ISOPON P.40 BODY FILLER FOR HOLES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
styrene (Note D)	CAS-No.: 100-42-5 EC-No.: 202-851-5 EC Index-No.: 601-026-00-0 REACH-no: 01-2119457861-32	5 – 20	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Inhalation:vapour), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 2, H361d STOT SE 3, H335 STOT RE 1, H372 Asp. Tox. 1, H304 Aquatic Chronic 3, H412
reaction mass of 2,2'-[(4-methylphenyl)imino]bisethanol and Ethanol, 2-[[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino]-	EC-No.: 911-490-9 REACH-no: 01-2119979579-10	0.1 – 1	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 2, H373 Aquatic Chronic 3, H412

Note D : Certain substances which are susceptible to spontaneous polymerisation or decomposition are generally placed on the market in a stabilised form. It is in this form that they are listed in Part 3. However, such substances are sometimes placed on the market in a non-stabilised form. In this case, the supplier must state on the label the name of the substance followed by the words 'non-stabilised'.

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: 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.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after eye contact	: Eye irritation.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam.
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5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Toxic fumes may be released.
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ISOPON P.40 BODY FILLER FOR HOLES

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. No open flames. No smoking.

6.1.1. For non-emergency personnel

Protective equipment : Safety glasses. Protective clothing. Gloves.

Emergency procedures : Ventilate spillage area. Do not breathe vapours, fume. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Contain released product. Collect spillage.

Methods for cleaning up : Mechanically recover the product. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe vapours, fume. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Storage temperature : < 25 °C

Storage area : Store in a well-ventilated place.

Special rules on packaging : Keep only in original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

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styrene (100-42-5)	
Ireland - Occupational Exposure Limits	
Local name	Styrene [Phenylethylene, Vinyl benzene]
OEL TWA [1]	85 mg/m ³
OEL TWA [2]	20 ppm
OEL STEL	170 mg/m ³
OEL STEL [ppm]	40 ppm
Regulatory reference	Chemical Agents Code of Practice 2020
United Kingdom - Occupational Exposure Limits	
Local name	Styrene
WEL TWA (OEL TWA) [1]	430 mg/m ³
WEL TWA (OEL TWA) [2]	100 ppm
WEL STEL (OEL STEL)	1080 mg/m ³
WEL STEL (OEL STEL) [ppm]	250 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Gloves. Protective clothing. Safety glasses.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

Eye protection			
Type	Field of application	Characteristics	Standard
Safety glasses	Dust	clear	

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Protective gloves	Nitrile rubber (NBR), Neoprene rubber (HNBR), Polyvinylalcohol (PVA), Viton	6 (> 480 minutes)	0.4		EN 374-3

Other skin protection

Materials for protective clothing:

Impermeable clothing

8.2.2.3. Respiratory protection

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Respiratory protection			
Device	Filter type	Condition	Standard
Breathing apparatus, Gas filters	Type A - High-boiling (>65 °C) organic compounds	Vapour protection	EN 140, EN 136, EN 143, EN 145, EN 149

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Yellow. clear.
Appearance	: Fibrous. Paste.
Odour	: aromatic.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not applicable
Boiling point	: Not available
Flammability	: Non flammable.
Explosive limits	: Not applicable
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: 32 °C (does not sustain combustion)
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: Not available
pH solution	: Not available
Viscosity, kinematic	: > 20.5 mm²/s

ISOPON P.40 BODY FILLER FOR HOLES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Solubility	: insoluble in water. soluble in most organic solvents.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: 1.37 (1.32 – 1.42) g/cm ³
Relative density	: Not available
Relative vapour density at 20 °C	: Not applicable
Particle size	: Not available
Particle size distribution	: Not available
Particle shape	: Not available
Particle aspect ratio	: Not available
Particle aggregation state	: Not available
Particle agglomeration state	: Not available
Particle specific surface area	: Not available
Particle dustiness	: Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Not sustained combustibility : Yes

9.2.2. Other safety characteristics

VOC content : 291 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

dolomite (16389-88-1)	
LD50 oral rat	> 2000 mg/kg (OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure), rat, female, Experimental value)

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Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

talc (14807-96-6)	
LD50 oral rat	> 5000 mg/kg bodyweight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Male, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 2.1 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 15 day(s))
silicon dioxide, amorphous (7631-86-9)	
LD50 oral rat	> 10000 mg/kg (Rat, Oral)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit, Dermal)
glass, oxide, chemicals (65997-17-3)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)
Xylene (1330-20-7)	
LD50 oral rat	3523 mg/kg bodyweight (Equivalent or similar to EU Method B.1: Acute Toxicity (Oral), Rat, Male, Experimental value, Oral, 14 day(s))
LD50 dermal rat	12126 mg/kg (Non-GLP, read-across from supporting substance, single dermal dose under occlusion followed by observation for 14 days)
LD50 dermal rabbit	12126 mg/kg bodyweight Animal: rabbit, Animal sex: male
LC50 Inhalation - Rat [ppm]	6700 ppm/4h (EU Method B.2 (Acute Toxicity (Inhalation)), 4h, rat, male)
ethylbenzene (100-41-4)	
LD50 oral rat	3500 mg/kg (Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	15432 mg/kg bodyweight (24 h, Rabbit, Male, Experimental value, Dermal)
LC50 Inhalation - Rat	17.8 mg/l (4 h, Rat, Male, Experimental value, Inhalation (vapours))
paraffin waxes and hydrocarbon waxes (8002-74-2)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
styrene (100-42-5)	
LD50 oral rat	5000 mg/kg bodyweight (Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	11.8 mg/l (4 h, Rat, Inconclusive, insufficient data, Inhalation (vapours))
reaction mass of 2,2'-[(4-methylphenyl)imino]bisethanol and Ethanol, 2-[[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino]-	
LD50 oral rat	619 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Guideline: EU Method B.1 (Acute Toxicity (Oral)), 95% CL: 305 - 1256
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal)), Guideline: EPA OPPTS 870.1200 (Acute Dermal Toxicity), Guideline: other: Japanese Ministry of Agriculture, Forestry and Fisheries (JMAFF), 12 Nousan, Notification No 8147, April 2011; including the most recent partial revisions.

Skin corrosion/irritation : Causes skin irritation.

ISOPON P.40 BODY FILLER FOR HOLES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

styrene (100-42-5)

IARC group	2B - Possibly carcinogenic to humans
Reproductive toxicity	: Suspected of damaging the unborn child.
STOT-single exposure	: Not classified

Xylene (1330-20-7)

STOT-single exposure	May cause respiratory irritation.
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styrene (100-42-5)

STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Causes damage to organs (hearing organs) through prolonged or repeated exposure (inhalation).

Xylene (1330-20-7)

LOAEL (oral, rat, 90 days)	150 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), Guideline: EPA OPP 82-1 (90-Day Oral Toxicity)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

ethylbenzene (100-41-4)

NOAEL (oral, rat, 90 days)	75 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
STOT-repeated exposure	May cause damage to organs (hearing sense) through prolonged or repeated exposure.

styrene (100-42-5)

LOAEL (oral, rat, 90 days)	2000 mg/kg bodyweight Animal: rat
LOAEC (inhalation, rat, vapour, 90 days)	0.21 mg/l air Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight Animal: rat
NOAEL (subchronic, oral, animal/male, 90 days)	10 mg/kg bodyweight Animal: mouse, Animal sex: male
STOT-repeated exposure	Causes damage to organs (hearing sense) through prolonged or repeated exposure (if inhaled).

reaction mass of 2,2'-[(4-methylphenyl)imino]bisethanol and Ethanol, 2-[[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino]-

NOAEL (oral, rat, 90 days)	100 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents), Guideline: EU Method B.7 (Repeated Dose (28 Days) Toxicity (Oral)), Guideline: other:United States Environmental Protection Agency (EPA). Health Effects Test Guidelines, OPPTS 870.3050, Repeated dose 28-day oral toxicity study in rodents. Office of Prevention, Pesticides and Toxic Substances (7101), EPA 712-C-00-366, July 2000
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard	: Not classified
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ISOPON P.40 BODY FILLER FOR HOLES

Viscosity, kinematic	> 20.5 mm ² /s
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11.2. Information on other hazards

No additional information available

ISOPON P.40 BODY FILLER FOR HOLES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Harmful to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

styrene (100-42-5)	
LC50 - Fish [1]	10 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	4.7 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	4.9 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	6.3 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
ErC50 algae	4.9 mg/l (EPA OTS 797.1050, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Growth rate)
LOEC (chronic)	2.06 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	1.01 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

reaction mass of 2,2'-[(4-methylphenyl)imino]bisethanol and Ethanol, 2-[[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino]-

LC50 - Fish [1]	> 100 mg/l Test organisms (species): Cyprinus carpio
EC50 - Crustacea [1]	48 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

12.2. Persistence and degradability

styrene (100-42-5)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Chemical oxygen demand (COD)	2.8 g O ₂ /g substance
ThOD	3.07 g O ₂ /g substance
BOD (% of ThOD)	0.42 (Literature study)

12.3. Bioaccumulative potential

styrene (100-42-5)	
BCF - Fish [1]	74 (Calculated value)
Partition coefficient n-octanol/water (Log Pow)	2.96 (Practical experience/observation, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

styrene (100-42-5)	
Surface tension	No data available in the literature
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.55 (log Koc, Estimated value)

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styrene (100-42-5)

Ecology - soil

Low potential for adsorption in soil.

12.5. Results of PBT and vPvB assessment

Component

styrene (100-42-5)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)

: Disposal must be done according to official regulations.

Waste treatment methods

: Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number or ID number

UN-No. (ADR) : Not regulated
UN-No. (IMDG) : Not regulated
UN-No. (IATA) : Not regulated
UN-No. (ADN) : Not regulated
UN-No. (RID) : Not regulated

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not regulated
Proper Shipping Name (IMDG) : Not regulated
Proper Shipping Name (IATA) : Not regulated
Proper Shipping Name (ADN) : Not regulated
Proper Shipping Name (RID) : Not regulated

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not regulated

IMDG

Transport hazard class(es) (IMDG) : Not regulated

IATA

Transport hazard class(es) (IATA) : Not regulated

ADN

Transport hazard class(es) (ADN) : Not regulated

RID

Transport hazard class(es) (RID) : Not regulated

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14.4. Packing group

Packing group (ADR)	: Not regulated
Packing group (IMDG)	: Not regulated
Packing group (IATA)	: Not regulated
Packing group (ADN)	: Not regulated
Packing group (RID)	: Not regulated

14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

EU restriction list (REACH Annex XVII)

Reference code	Applicable on	Entry title or description
3(a)	styrene	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F
3(b)	styrene	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
3(c)	styrene	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1
40.	styrene	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

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Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

VOC content : 291 g/l

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BLV	Biological limit value
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
EN	European Standard
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

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Full text of H- and EUH-statements:	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
EUH208	Contains reaction mass of 2,2'-[(4-methylphenyl)imino]bisethanol and Ethanol, 2-[[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino]-. May produce an allergic reaction.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H361	Suspected of damaging fertility or the unborn child.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation

For professional use only.

The information contained within this Safety Data Sheet (SDS) is believed to be correct as of the date issued however it is subject to change from time to time. It does not purport to be all inclusive or exhaustive and shall only be used as a guide. U-POL makes no warranties, expressed or implied, including but not limited to, any implied warranty of fitness for a given purpose or usage. It is the Buyers responsibility to ensure the suitability of the products for their own use and to check the information is up to date. U-POL cannot be held responsible for the suitability of use for any of its products, considering the wide range of factors such as application, substrates and handling methods. Since these conditions of use are outside of our control, the company shall not be held liable for any damage resulting from handling or from contact with the product detailed. Moreover, addition of reducers, hardeners or other additives over and above U-POL's recommendations for use, may substantially alter the composition and hazards of the product. U-POL data sheets are available via the U-POL website at WWW.U-POL.COM.

SAFETY DATA SHEET



Date of issue/Date of revision 11 June 2022

Version 17

Section 1. Identification

Product name : PR 1440 A 1/2 Part B

Product code : PR 1440 A 1/2 Part B

Other means of identification : Not available.

Product type : Liquid.

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

Product use : Industrial applications.

**Use of the substance/
mixture** : Sealants

Uses advised against : Not applicable.

Manufacturer : PPG Aerospace PRC-DeSoto
12780 San Fernando Road
Sylmar, CA 91342
Phone: 818 362 6711

**Emergency telephone
number** : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)

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 2
EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION - Category 2
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 6.1% (oral), 47.6% (dermal), 79.9% (inhalation)
This product contains TiO₂ which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many PPG products, TiO₂ is utilized as a raw material in a liquid coating formulation. In this case, the TiO₂ particles are bound in a matrix with no meaningful potential for human exposure to unbound particles of TiO₂ when the product is applied with a brush or roller. Sanding the coating surface or mist from spray applications may be harmful depending on the duration and level of exposure and require the use of appropriate personal protective equipment and/or engineering controls (see Section 8).

Section 2. Hazards identification

GHS label elements

Hazard pictograms



Signal word

: Danger

Hazard statements

: Highly flammable liquid and vapor.
 Causes serious eye irritation.
 Suspected of causing cancer.
 Suspected of damaging fertility or the unborn child.
 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Keep container tightly closed. Do not breathe vapor. Wash thoroughly after handling.

Response

: IF exposed or concerned: Get medical advice or attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. 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 or 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

: Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

Hazards not otherwise classified

: Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Product name

: PR 1440 A 1/2 Part B

Ingredient name	%	CAS number
calcium carbonate	≥20 - ≤50	471-34-1
butanone	≥10 - ≤13	78-93-3
toluene	≥1.0 - ≤6.6	108-88-3
titanium dioxide	≥1.0 - ≤5.0	13463-67-7

SUB codes represent substances without registered CAS Numbers.

Section 3. Composition/information on ingredients

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

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

- | | |
|---------------------|--|
| Eye contact | : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice. |
| Inhalation | : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. |
| Skin contact | : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners. |
| Ingestion | : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting. |

Most important symptoms/effects, acute and delayed

Potential acute health effects

- | | |
|---------------------|---|
| Eye contact | : Causes serious eye irritation. |
| Inhalation | : No known significant effects or critical hazards. |
| Skin contact | : Defatting to the skin. May cause skin dryness and irritation. |
| Ingestion | : No known significant effects or critical hazards. |

Over-exposure signs/symptoms

- | | |
|---------------------|--|
| Eye contact | : Adverse symptoms may include the following:
pain or irritation
watering
redness |
| Inhalation | : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations |
| Skin contact | : Adverse symptoms may include the following:
irritation
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations |
| Ingestion | : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations |

Section 4. First aid measures

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 dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Highly 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. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon oxides
halogenated compounds
metal oxide/oxides
Formaldehyde.

- 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

- 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. 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.
- 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).

Section 6. Accidental release measures

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 ingest. 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.
- Special precautions** : Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
- 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** : Do not store above the following temperature: 50°C (122°F). 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
calcium carbonate	ACGIH TLV (United States). TWA: 3 mg/m ³ Form: Respirable TWA: 10 mg/m ³ Form: Total dust OSHA PEL (United States). TWA: 5 mg/m ³ Form: Respirable TWA: 15 mg/m ³
butanone	ACGIH TLV (United States, 3/2020). STEL: 885 mg/m ³ 15 minutes. STEL: 300 ppm 15 minutes. TWA: 590 mg/m ³ 8 hours. TWA: 200 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 590 mg/m ³ 8 hours. TWA: 200 ppm 8 hours.
toluene	OSHA PEL Z2 (United States, 2/2013). AMP: 500 ppm 10 minutes. CEIL: 300 ppm TWA: 200 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours.
titanium dioxide	OSHA PEL (United States, 5/2018). TWA: 15 mg/m ³ 8 hours. Form: Total dust ACGIH TLV (United States, 3/2020). TWA: 10 mg/m ³ 8 hours.

Key to abbreviations

A = Acceptable Maximum Peak
 ACGIH = American Conference of Governmental Industrial Hygienists.
 C = Ceiling Limit
 F = Fume
 IPEL = Internal Permissible Exposure Limit
 OSHA = Occupational Safety and Health Administration.
 R = Respirable
 Z = OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances

S = Potential skin absorption
 SR = Respiratory sensitization
 SS = Skin sensitization
 STEL = Short term Exposure limit values
 TD = Total dust
 TLV = Threshold Limit Value
 TWA = Time Weighted Average

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.

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.

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 : 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.

Gloves : For prolonged or repeated handling, use the following type of gloves:

Recommended: natural rubber (latex), butyl rubber

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 : 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. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

The respiratory protection shall be in accordance to 29 CFR 1910.134.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Beige.

Odor : Not available.

Odor threshold : Not available.

pH : Not applicable.

Melting point : Not available.

Boiling point : 79.44 to 176.67°C (175 to 350°F)

Section 9. Physical and chemical properties

Flash point	: Closed cup: 16.67°C (62°F)
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Lower: 1.3%
Evaporation rate	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: 1.41
Density (lbs / gal)	: 11.77
Solubility	: Insoluble in the following materials: cold water.
Partition coefficient: n-octanol/water	: Not applicable.
Viscosity	: Kinematic (40°C (104°F)): >21 mm ² /s (>21 cSt)
VOC	: 218 g/l
% Solid. (w/w)	: 84.28

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	: When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products	: Depending on conditions, decomposition products may include the following materials: carbon oxides halogenated compounds Formaldehyde. metal oxide/oxides

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
calcium carbonate	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	6450 mg/kg	-
butanone	LD50 Dermal	Rabbit	6480 mg/kg	-
	LD50 Oral	Rat	2737 mg/kg	-
toluene	LC50 Inhalation Vapor	Rat	49 g/m ³	4 hours
	LD50 Dermal	Rabbit	8.39 g/kg	-
	LD50 Oral	Rat	5580 mg/kg	-
titanium dioxide	LC50 Inhalation Dusts and mists	Rat	>6.82 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Classification

Product/ingredient name	OSHA	IARC	NTP
toluene	-	3	-
titanium dioxide	-	2B	-

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
butanone	Category 3	-	Narcotic effects
toluene	Category 3	-	Narcotic effects

Section 11. Toxicological information

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
toluene	Category 2	-	-

Target organs : Contains material which causes damage to the following organs: brain.
Contains material which may cause damage to the following organs: blood, kidneys, the nervous system, the reproductive system, liver, heart, peripheral nervous system, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

Aspiration hazard

Name	Result
toluene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

Eye contact : Causes serious eye irritation.
Inhalation : No known significant effects or critical hazards.
Skin contact : Defatting to the skin. May cause skin dryness and irritation.
Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations

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

Conclusion/Summary : There are no data available on the mixture itself. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. This product contains TiO₂ which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many PPG products, TiO₂ is utilized as a raw material in a liquid coating formulation. In this case, the TiO₂ particles are bound in a matrix with no meaningful potential for human exposure to unbound particles of TiO₂ when the product is applied with a brush or roller. Sanding the coating

Section 11. Toxicological information

surface or mist from spray applications may be harmful depending on the duration and level of exposure and require the use of appropriate personal protective equipment and/or engineering controls (see Section 8). Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

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 : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
PR 1440 A 1/2 Part B	26163.2	4814.4	N/A	N/A	N/A
calcium carbonate	6450	2500	N/A	N/A	N/A
butanone	2737	6480	N/A	N/A	N/A
toluene	5580	8390	N/A	49	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
calcium carbonate	Acute EC10 >14 mg/l	Algae	72 hours
titanium dioxide	Acute LC50 >100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
toluene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
butanone	0.3	-	low
toluene	2.73	8.32	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

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.

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 6. Accidental release measures

14. Transport information

	DOT	IMDG	IATA
UN number	UN1133	UN1133	UN1133
UN proper shipping name	ADHESIVES	ADHESIVES	ADHESIVES
Transport hazard class (es)	3	3	3
Packing group	II	II	II
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.
Product RQ (lbs)	19072.9	Not applicable.	Not applicable.
RQ substances	(toluene, butanone)	Not applicable.	Not applicable.

Additional information

DOT : Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

IMDG : None identified.

IATA : None identified.

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 IMO instruments : Not applicable.

Section 15. Regulatory information

United States

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

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 2
EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION - Category 2
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
HNOC - Defatting irritant

Composition/information on ingredients

Section 15. Regulatory information

Name	%	Classification
butanone	≥10 - ≤13	FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 HNOC - Defatting irritant
toluene	≥1.0 - ≤6.6	FLAMMABLE LIQUIDS - Category 2 SKIN IRRITATION - Category 2 TOXIC TO REPRODUCTION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant
titanium dioxide	≥1.0 - ≤5.0	CARCINOGENICITY - Category 2

SARA 313

Supplier notification	Chemical name	CAS number	Concentration
	toluene	108-88-3	3 - 7

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.

California Prop. 65

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

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 2 * Flammability : 3 Physical hazards : 0

(*) - Chronic effects

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 MSDSs 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 : 2 Flammability : 3 Instability : 0

Date of previous issue : 4/26/2021

Organization that prepared the SDS : EHS

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

Section 16. Other information

as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available

SGG = Segregation Group

UN = United Nations

Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

Product code PR 1440 A 1/2 Part A

Date of issue 19 June 2022

Version 24

Product name PR 1440 A 1/2 Part A

Section 16. Other information

Health : 3 **Flammability** : 0 **Instability** : 1

Date of previous issue : 5/2/2021

Organization that prepared the SDS : EHS

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)
- N/A = Not available
- SGG = Segregation Group
- UN = United Nations

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SAFETY DATA SHEET



Date of issue/Date of revision 19 June 2023

Version 21

Section 1. Identification

Product name : PR 1440 B 1/2 Part A

Product code : PR 1440 B 1/2 Part A

Other means of identification : Not available.

Product type : Liquid.

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

Product use : Industrial applications.

Use of the substance/
mixture : Sealants

Uses advised against : Not applicable.

Manufacturer : PPG Aerospace PRC-DeSoto
12780 San Fernando Road
Sylmar, CA 91342
Phone: 818 362 6711

Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)

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 : ACUTE TOXICITY (oral) - Category 4
ACUTE TOXICITY (inhalation) - Category 4
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION - Category 2
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 6.3% (oral), 94.9% (dermal), 48.3% (inhalation)

GHS label elements

Hazard pictograms :



Signal word : Warning

Section 2. Hazards identification

Hazard statements	: Harmful if swallowed or if inhaled. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure. (brain)
<u>Precautionary statements</u>	
Prevention	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.
Response	: IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth.
Storage	: Store locked up.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	: Sanding and grinding dusts may be harmful if inhaled. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.
Hazards not otherwise classified	: Oxidising potential : Contact with combustible material may cause fire. Keep away from clothing, incompatible materials and combustible materials. This material increases the risk of fire and may aid combustion. Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Product name	: PR 1440 B 1/2 Part A

Ingredient name	%	CAS number
Manganese dioxide	≥20 - ≤50	1313-13-9
Terphenyl, hydrogenated	≥20 - ≤50	61788-32-7
Zeolites	≥5.0 - ≤10	1318-02-1
Polyphenyls, quater- and higher, partially hydrogenated	≥5.0 - ≤10	68956-74-1
Talc, not containing asbestiform fibers	≥1.0 - ≤5.0	14807-96-6
carbon black	≥1.0 - ≤5.0	1333-86-4
terphenyl	≥1.0 - ≤5.0	26140-60-3
magnesium carbonate	≥1.0 - ≤5.0	546-93-0
1,3-diphenylguanidine	≥1.0 - ≤4.6	102-06-7

SUB codes represent substances without registered CAS Numbers.

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

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

- Eye contact** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : Harmful if inhaled.
- Skin contact** : Defatting to the skin. May cause skin dryness and irritation.
- Ingestion** : Harmful if swallowed.

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations
- 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** : 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.
- 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.

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 : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon oxides
nitrogen oxides
sulfur oxides
metal oxide/oxides

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. Avoid breathing vapor or mist. 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).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. 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. 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 ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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.
- Special precautions** : Keep away from combustible materials. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
- 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** : Do not store below the following temperature: 5°C (41°F). 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. 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
manganese dioxide	ACGIH TLV (United States, 3/2020). TWA: 0.1 mg/m ³ , (as Mn) 8 hours. Form: Inhalable fraction TWA: 0.02 mg/m ³ , (as Mn) 8 hours. Form: Respirable fraction OSHA PEL (United States, 5/2018). CEIL: 5 mg/m ³ , (as Mn)
Terphenyl, hydrogenated	ACGIH TLV (United States, 3/2020). TWA: 4.9 mg/m ³ 8 hours. TWA: 0.5 ppm 8 hours.
Zeolites	ACGIH TLV (United States, 3/2020). TWA: 1 mg/m ³ 8 hours. Form: Respirable fraction None.
Polyphenyls, quater- and higher, partially hydrogenated Talc, not containing asbestiform fibers	ACGIH TLV (United States, 3/2020). TWA: 2 mg/m ³ 8 hours. Form: Respirable OSHA PEL Z3 (United States). TWA: 2 mg/m ³
carbon black	ACGIH TLV (United States, 3/2020).

Section 8. Exposure controls/personal protection

terphenyl	TWA: 3 mg/m ³ 8 hours. Form: Inhalable fraction OSHA PEL (United States, 5/2018). TWA: 3.5 mg/m ³ 8 hours. ACGIH TLV (United States, 3/2020). C: 5 mg/m ³ C: 0.53 ppm OSHA PEL (United States, 5/2018). CEIL: 9 mg/m ³ CEIL: 1 ppm
magnesium carbonate	OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ 8 hours. Form: Total dust
1,3-diphenylguanidine	None.

Key to abbreviations

A	= Acceptable Maximum Peak	S	= Potential skin absorption
ACGIH	= American Conference of Governmental Industrial Hygienists.	SR	= Respiratory sensitization
C	= Ceiling Limit	SS	= Skin sensitization
F	= Fume	STEL	= Short term Exposure limit values
IPEL	= Internal Permissible Exposure Limit	TD	= Total dust
OSHA	= Occupational Safety and Health Administration.	TLV	= Threshold Limit Value
R	= Respirable	TWA	= Time Weighted Average
Z	= OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances		

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.

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.

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

Section 8. Exposure controls/personal 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.
- Gloves** : For prolonged or repeated handling, use the following type of gloves:
- Recommended: nitrile rubber, natural rubber (latex)
- 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** : 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. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.
The respiratory protection shall be in accordance to 29 CFR 1910.134.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Black.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not applicable.
- Melting point** : Not available.
- Boiling point** : 360°C (680°F)
- Flash point** : Closed cup: Not applicable.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Evaporation rate** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : 1.76
- Density (lbs / gal)** : 14.69
- Solubility** : Insoluble in the following materials: cold water.

Section 9. Physical and chemical properties

Partition coefficient: n-octanol/water	: Not applicable.
Viscosity	:  Kinematic (40°C (104°F)): >21 mm²/s (>21 cSt)
VOC	: 0
% Solid. (w/w)	: 100


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	: When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products	: Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides sulfur oxides metal oxide/oxides

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
 Manganese dioxide	LD50 Oral	Rat	3478 mg/kg	-
Terphenyl, hydrogenated	LD50 Oral	Rat	17500 mg/kg	-
Zeolites	LD50 Oral	Rat	>5 g/kg	-
carbon black	LD50 Oral	Rat	>10 g/kg	-
terphenyl	LD50 Oral	Rat - Female	2304 mg/kg	-
magnesium carbonate	LD50 Oral	Rat	8000 mg/kg	-
1,3-diphenylguanidine	LD50 Oral	Rat	323 mg/kg	-

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

Conclusion/Summary

Skin	: There are no data available on the mixture itself.
Eyes	: There are no data available on the mixture itself.
Respiratory	: There are no data available on the mixture itself.

Sensitization

Conclusion/Summary

Skin	: There are no data available on the mixture itself.
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Section 11. Toxicological information

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Classification

Product/ingredient name	OSHA	IARC	NTP
Zeolites	-	3	-
carbon black	-	2B	-

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Alc, not containing asbestiform fibers	Category 3	-	Respiratory tract irritation
1,3-diphenylguanidine	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
manganese dioxide	Category 2	inhalation	brain

Target organs

: Contains material which causes damage to the following organs: lungs, skin, central nervous system (CNS).

Contains material which may cause damage to the following organs: blood, kidneys, the nervous system, liver, spleen, lymphatic system, cardiovascular system, upper respiratory tract, bone marrow, eye, lens or cornea.

Aspiration hazard

Not available.

Information on the likely routes of exposure

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : Harmful if inhaled.

Skin contact : Defatting to the skin. May cause skin dryness and irritation.

Section 11. Toxicological information

Ingestion : Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations

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

Conclusion/Summary : There are no data available on the mixture itself. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

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 : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Section 11. Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
PR 1440 B 1/2 Part A	1016.8	N/A	N/A	N/A	1.7
manganese dioxide	500	N/A	N/A	N/A	1.5
Terphenyl, hydrogenated	17500	N/A	N/A	N/A	N/A
terphenyl	2304	N/A	N/A	N/A	N/A
magnesium carbonate	8000	N/A	N/A	N/A	N/A
1,3-diphenylguanidine	323	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Zeolites	Acute LC50 >680 mg/l	Fish	96 hours
terphenyl	Acute EC50 0.022 mg/l	Daphnia	48 hours
	Chronic NOEC 0.00322 mg/l	Daphnia	72 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
terphenyl	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
1,3-diphenylguanidine	2.42	19.95	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains

Section 13. Disposal considerations

and sewers.

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 6. Accidental release measures

14. Transport information

	DOT	IMDG	IATA
UN number	Not regulated.	UN3082	UN3082
UN proper shipping name	-	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Terphenyl, hydrogenated, terphenyl)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Terphenyl, hydrogenated, terphenyl)
Transport hazard class(es)	-	9	9
Packing group	-	III	III
Environmental hazards	No.	Yes.	Yes.
Marine pollutant substances	Not applicable.	(Terphenyl, hydrogenated, terphenyl)	Not applicable.

Additional information

DOT : None identified.

IMDG : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

IATA : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

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 IMO instruments : Not applicable.

Section 15. Regulatory information

United States

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

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

Section 15. Regulatory information

SARA 311/312

Classification

: ACUTE TOXICITY (oral) - Category 4
 ACUTE TOXICITY (inhalation) - Category 4
 CARCINOGENICITY - Category 2
 TOXIC TO REPRODUCTION - Category 2
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
 HNOC - Defatting irritant
 HNOC - Avoid contact with organic materials.

Composition/information on ingredients

Name	%	Classification
manganese dioxide	≥20 - ≤50	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 HNOC - Avoid contact with organic materials. HNOC - Defatting irritant
Polyphenyls, quater- and higher, partially hydrogenated	≥5.0 - ≤10	
Talc, not containing asbestiform fibers	≥1.0 - ≤5.0	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
carbon black	≥1.0 - ≤5.0	COMBUSTIBLE DUSTS CARCINOGENICITY - Category 2
1,3-diphenylguanidine	≥1.0 - ≤4.6	COMBUSTIBLE DUSTS ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A TOXIC TO REPRODUCTION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

SARA 313

Supplier notification	Chemical name	CAS number	Concentration
: manganese dioxide		1313-13-9	30 - 60

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.

California Prop. 65

 **WARNING:** Cancer - www.P65Warnings.ca.gov.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 3 * Flammability : 0 Physical hazards : 1

(*) - Chronic effects

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 MSDSs 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.)

RAPTOR LINER - BLACK

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
 SDS Ref. (EU): RLB-SDS
 Issue date: 1/13/2021 Revision date: 8/26/2023 Supersedes version of: 4/15/2023 Version: 7.0

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

1.1. Product identifier

Product form : Mixture
 Trade name : RAPTOR LINER - BLACK
 UFI : NXR0-J088-900X-M2UQ
 Product code : RLB/1
 Product group : Coating
 Other means of identification : Component of: RLB/S4, RLB/S1

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

1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use
 Use of the substance/mixture : Coatings and paints, thinners, paint removers
 Function or use category : Coating

1.2.2. Uses advised against

Restrictions on use : Consumer uses: Private households (= general public = consumers)

1.3. Details of the supplier of the safety data sheet

Manufacturer

U-POL Limited
 Denington Road
 NN8 2QH Wellingborough - United Kingdom
 T +44 (0) 1933 230310
technicalsupport@u-pol.com - www.u-pol.com

Importer

U-POL Netherlands B.V.
 Hoorgoordreef 15
 1101BA Amsterdam - Netherlands
 T +31 20 240 2216
technicalsupport@u-pol.com - www.u-pol.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: +44 (0) 870 8200418 (24 hrs)

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	NHS England, Scotland & Wales	-	Call 111 or a Doctor	In Northern Ireland, contact your local GP or pharmacist during normal hours (www.gpoutofhours.hscni.net)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 2 H225
 Serious eye damage/eye irritation, Category 2 H319
 Skin sensitisation, Category 1 H317
 Specific target organ toxicity — Single exposure, Category 3, Narcosis H336
 Hazardous to the aquatic environment — Chronic Hazard, Category 3 H412
 Full text of H-statements: see section 16

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Adverse physicochemical, human health and environmental effects

Highly flammable liquid and vapour. May cause drowsiness or dizziness. May cause an allergic skin reaction. Causes serious eye irritation. Harmful to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS02

GHS07

Signal word (CLP)

: Danger

Contains

: acetone; reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate; reaction mass of α -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- ω -hydroxypoly(oxyethylene) and α -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- ω -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyloxypoly(oxyethylene)

Hazard statements (CLP)

: H225 - Highly flammable liquid and vapour.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H336 - May cause drowsiness or dizziness.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP)

: P210 - Keep away from heat, hot surfaces, open flames, sparks. — No smoking.
P261 - Avoid breathing spray, vapours, fume.
P280 - Wear eye protection, protective gloves, protective clothing.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
EUH066 - Repeated exposure may cause skin dryness or cracking.
0.57% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Vapours))

EUH-statements

Unknown acute toxicity (CLP) - SDS

2.3. Other hazards

Component	
acetone (67-64-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
n-butyl acetate (123-86-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
2-methoxy-1-methylethyl acetate (108-65-6)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Xylene (1330-20-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

RAPTOR LINER - BLACK

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
acetone substance with a Community workplace exposure limit	(CAS-No.) 67-64-1 (EC-No.) 200-662-2 (EC Index-No.) 606-001-00-8 (REACH-no) 01-2119471330-49	10 – 20	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
n-butyl acetate substance with a Community workplace exposure limit	(CAS-No.) 123-86-4 (EC-No.) 204-658-1 (EC Index-No.) 607-025-00-1 (REACH-no) 01-2119485493-29	3 – 10	Flam. Liq. 3, H226 STOT SE 3, H336
2-methoxy-1-methylethyl acetate substance with a Community workplace exposure limit	(CAS-No.) 108-65-6 (EC-No.) 203-603-9 (EC Index-No.) 607-195-00-7 (REACH-no) 01-2119475791-29	3 – 10	Flam. Liq. 3, H226
reaction mass of ethylbenzene, m-xylene and p-xylene	(EC-No.) 905-562-9 (REACH-no) 01-2119555267-33	3 – 10	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304
kieselguhr, soda ash flux calcined	(CAS-No.) 68855-54-9 (EC-No.) 272-489-0 (REACH-no) 01-2119488518-22	< 5	STOT RE 2, H373
Xylene substance with a Community workplace exposure limit (Note C)	(CAS-No.) 1330-20-7 (EC-No.) 215-535-7 (EC Index-No.) 601-022-00-9 (REACH-no) 01-2119488216-32	1 – 2.5	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304
reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	(CAS-No.) 1065336-91-5 (EC-No.) 915-687-0 (REACH-no) 01-2119491304-40	0.3 – 1	Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
reaction mass of α -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- ω -hydroxypoly(oxyethylene) and α -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- ω -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyloxypoly(oxyethylene)	(EC-No.) 400-830-7 (EC Index-No.) 607-176-00-3 (REACH-no) 01-0000015075-76	0.1 – 0.25	Skin Sens. 1A, H317 Aquatic Chronic 2, H411

Note C : Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

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First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: 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.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects	: May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: May cause an allergic skin reaction. Repeated exposure may cause skin dryness or cracking.
Symptoms/effects after eye contact	: Eye irritation.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Dry sand. Water spray. Dry powder. Foam. Carbon dioxide.
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5.2. Special hazards arising from the substance or mixture

Fire hazard	: Highly flammable liquid and vapour.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: Protective clothing. Gloves. Safety glasses.
Emergency procedures	: Ventilate spillage area. Do not breathe vapours. No open flames, no sparks, and no smoking. Avoid breathing vapours, spray, fume. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Contain released product. Collect spillage.
Methods for cleaning up	: Take up liquid spill into absorbent material. This material and its container must be disposed of in a safe way, and as per local legislation. Notify authorities if product enters sewers or public waters.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

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Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	: Keep away from Heat and ignition sources. No smoking.
Precautions for safe handling	: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing vapours, spray, fume. Avoid contact with skin and eyes.
Hygiene measures	: Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Ground/bond container and receiving equipment.
Storage conditions	: Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.
Storage temperature	: < 25 °C
Storage area	: Store in well ventilated area.
Special rules on packaging	: Keep only in original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

acetone (67-64-1)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Acetone
IOEL TWA	1210 mg/m³
IOEL TWA [ppm]	500 ppm
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC COMMISSION DIRECTIVE 2000/39/EC
Ireland - Occupational Exposure Limits	
Local name	Acetone
OEL TWA [1]	1210 mg/m³
OEL TWA [2]	500 ppm
Notes (IE)	IOELV (Indicative Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2020
Ireland - Biological limit values	
Local name	Acetone
BLV	50 mg/l Parameter: acetone - Medium: urine - Sampling time: End of shift - Notations: Ns (Non-specific)
Regulatory reference	Biological Monitoring Guidelines (HSA, 2011)
United Kingdom - Occupational Exposure Limits	
Local name	Acetone
WEL TWA (OEL TWA) [1]	1210 mg/m³

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

acetone (67-64-1)	
WEL TWA (OEL TWA) [2]	500 ppm
WEL STEL (OEL STEL)	3620 mg/m³
WEL STEL (OEL STEL) [ppm]	1500 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

kieselguhr, soda ash flux calcined (68855-54-9)	
Ireland - Occupational Exposure Limits	
Local name	Diatomaceous earth, natural, respirable dust
OEL TWA [1]	1.2 mg/m³
Regulatory reference	Chemical Agents Code of Practice 2020
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	1.2 mg/m³

n-butyl acetate (123-86-4)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	n-Butyl acetate
IOEL TWA	241 mg/m³
IOEL TWA [ppm]	50 ppm
IOEL STEL	723 mg/m³ 723 mg/m³
IOEL STEL [ppm]	150 ppm 150 ppm
Regulatory reference	COMMISSION DIRECTIVE (EU) 2019/1831 COMMISSION DIRECTIVE (EU) 2019/1831
Ireland - Occupational Exposure Limits	
Local name	Butyl acetate
OEL TWA [1]	710 mg/m³
OEL TWA [2]	150 ppm
OEL STEL	950 mg/m³
OEL STEL [ppm]	200 ppm
Regulatory reference	Chemical Agents Code of Practice 2020
United Kingdom - Occupational Exposure Limits	
Local name	Butyl acetate
WEL TWA (OEL TWA) [1]	724 mg/m³
WEL TWA (OEL TWA) [2]	150 ppm
WEL STEL (OEL STEL)	966 mg/m³
WEL STEL (OEL STEL) [ppm]	200 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

2-methoxy-1-methylethyl acetate (108-65-6)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	2-Methoxy-1-methylethylacetate

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2-methoxy-1-methylethyl acetate (108-65-6)	
IOEL TWA	275 mg/m ³
IOEL TWA [ppm]	50 ppm
IOEL STEL	550 mg/m ³
IOEL STEL [ppm]	100 ppm
Notes	Skin Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC COMMISSION DIRECTIVE 2000/39/EC
Ireland - Occupational Exposure Limits	
Local name	2-Methoxy-1-methylethylacetate
OEL TWA [1]	275 mg/m ³
OEL TWA [2]	50 ppm
OEL STEL	550 mg/m ³
OEL STEL [ppm]	100 ppm
Notes (IE)	Sk (Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body), IOELV (Indicative Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2020
United Kingdom - Occupational Exposure Limits	
Local name	1-Methoxypropyl acetate
WEL TWA (OEL TWA) [1]	274 mg/m ³
WEL TWA (OEL TWA) [2]	50 ppm
WEL STEL (OEL STEL)	548 mg/m ³
WEL STEL (OEL STEL) [ppm]	100 ppm
Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
Xylene (1330-20-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Xylene, mixed isomers, pure
IOEL TWA	221 mg/m ³
IOEL TWA [ppm]	50 ppm
IOEL STEL	442 mg/m ³
IOEL STEL [ppm]	100 ppm
Notes	Skin Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC COMMISSION DIRECTIVE 2000/39/EC
Ireland - Occupational Exposure Limits	
Local name	Xylene, mixed isomers
OEL TWA [1]	221 mg/m ³

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Xylene (1330-20-7)	
OEL TWA [2]	50 ppm
OEL STEL	442 mg/m³
OEL STEL [ppm]	100 ppm
Notes (IE)	Sk (Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body), IOELV (Indicative Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2020
Ireland - Biological limit values	
Local name	Xylene
BLV	1.5 g/g creatinine Parameter: methylhippuric acids - Medium: urine - Sampling time: End of Shift
Regulatory reference	Biological Monitoring Guidelines (HSA, 2011)
United Kingdom - Occupational Exposure Limits	
Local name	Xylene
WEL TWA (OEL TWA) [1]	220 mg/m³
WEL TWA (OEL TWA) [2]	50 ppm
WEL STEL (OEL STEL)	441 mg/m³
WEL STEL (OEL STEL) [ppm]	100 ppm
Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
United Kingdom - Biological limit values	
Local name	Xylene, o-, m-, p- or mixed isomers
BMGV	650 mmol/mol Creatinine Parameter: methyl hippuric acid - Medium: urine - Sampling time: Post shift
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

acetone (67-64-1)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	2420 mg/m³
Long-term - systemic effects, dermal	186 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1210 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	62 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	200 mg/m³
Long-term - systemic effects, dermal	62 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	10.6 mg/l

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PNEC aqua (marine water)	1.06 mg/l
PNEC aqua (intermittent, freshwater)	21 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	30.4 mg/kg dwt
PNEC sediment (marine water)	3.04 mg/kg dwt
PNEC (Soil)	
PNEC soil	29.5 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	100 mg/l

n-butyl acetate (123-86-4)	
DNEL/DMEL (Workers)	
Acute - systemic effects, dermal	11 mg/kg bw/day
Acute - systemic effects, inhalation	600 mg/m ³
Acute - local effects, inhalation	600 mg/m ³
Long-term - systemic effects, dermal	11 mg/kg bw/day
Long-term - systemic effects, inhalation	300 mg/m ³
Long-term - local effects, inhalation	300 mg/m ³
DNEL/DMEL (General population)	
Acute - systemic effects, dermal	6 mg/kg bw/day
Acute - systemic effects, inhalation	300 mg/m ³
Acute - systemic effects, oral	2 mg/kg bw/day
Acute - local effects, inhalation	300 mg/m ³
Long-term - systemic effects, oral	2 mg/kg bw/day
Long-term - systemic effects, inhalation	35.7 mg/m ³
Long-term - systemic effects, dermal	6 mg/kg bw/day
Long-term - local effects, inhalation	35.7 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0.18 mg/l
PNEC aqua (marine water)	0.018 mg/l
PNEC aqua (intermittent, freshwater)	0.36 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.981 mg/kg dwt
PNEC sediment (marine water)	0.0981 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.0903 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	35.6 mg/l

2-methoxy-1-methylethyl acetate (108-65-6)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	550 mg/m ³

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Long-term - systemic effects, dermal	796 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	275 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	36 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	33 mg/m³
Long-term - systemic effects, dermal	320 mg/kg bodyweight/day
Long-term - local effects, inhalation	33 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	0.635 mg/l
PNEC aqua (marine water)	0.0635 mg/l
PNEC aqua (intermittent, freshwater)	6.35 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	3.29 mg/kg dwt
PNEC sediment (marine water)	0.329 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.29 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	100 mg/l

Xylene (1330-20-7)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	289 mg/m³
Acute - local effects, inhalation	289 mg/m³
Long-term - systemic effects, dermal	180 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	77 mg/m³
Long-term - local effects, inhalation	77 mg/m³
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	174 mg/m³
Acute - local effects, inhalation	174 mg/m³
Long-term - systemic effects, oral	1.6 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	14.8 mg/m³
Long-term - systemic effects, dermal	108 mg/kg bodyweight/day
Long-term - local effects, inhalation	65.3 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	0.327 mg/l
PNEC aqua (marine water)	0.327 mg/l
PNEC aqua (intermittent, freshwater)	0.327 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	12.46 mg/kg dwt
PNEC sediment (marine water)	12.46 mg/kg dwt

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PNEC (Soil)	
PNEC soil	2.31 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	6.58 mg/l

reaction mass of α -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- ω -hydroxypoly(oxyethylene) and α -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- ω -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyloxypoly(oxyethylene)

DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	0.05 mg/kg bw/day
Long-term - systemic effects, inhalation	0.35 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	0.025 mg/kg bw/day
Long-term - systemic effects, inhalation	0.085 mg/m ³
Long-term - systemic effects, dermal	0.25 mg/kg bw/day
PNEC (Water)	
PNEC aqua (freshwater)	0.0023 mg/l
PNEC aqua (marine water)	0.00023 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	3.37 mg/kg dwt
PNEC sediment (marine water)	0.337 mg/kg dwt
PNEC (Soil)	
PNEC soil	2 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	10 mg/l

reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (1065336-91-5)

DNEL/DMEL (Workers)	
Long-term - systemic effects, inhalation	0.68 mg/m ³ (DGUV DNEL List 2019)

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Gloves. Protective clothing. Safety glasses. Gas mask.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

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Eye protection:

Chemical goggles or face shield. Safety glasses

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

Other skin protection

Materials for protective clothing:

Impermeable clothing

8.2.2.3. Respiratory protection

Respiratory protection:

Air-fed respiratory protective equipment should be worn when this product is sprayed

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Black.
Appearance	: Viscous. Liquid.
Odour	: aromatic.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: > 35 °C
Flammability	: Not applicable
Explosive limits	: Not available
Lower explosive limit (LEL)	: Not available
Upper explosive limit (UEL)	: Not available
Flash point	: < 0 °C
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: 7777.778 mm ² /s
Viscosity, dynamic	: 8750 (7500 – 10000) cP (20°C)
Solubility	: insoluble in water. soluble in most organic solvents.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: 1.125 (1.1 – 1.14) g/cm ³
Relative density	: Not available
Relative vapour density at 20 °C	: Not available

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Particle size	: Not applicable
Particle size distribution	: Not applicable
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle aggregation state	: Not applicable
Particle agglomeration state	: Not applicable
Particle specific surface area	: Not applicable
Particle dustiness	: Not applicable

9.2. Other information

VOC content : 417 g/l

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC content : 417 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapour.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

acetone (67-64-1)	
LD50 oral rat	5800 mg/kg bodyweight Animal: rat, Animal sex: female
LD50 dermal rabbit	20000 mg/kg (Equivalent or similar to OECD 402, Rabbit, Male, Experimental value, Dermal)
LC50 Inhalation - Rat	76 mg/l air Animal: rat, Animal sex: female, 95% CL: 65,2 - 88,4

carbon black (1333-86-4)	
LD50 oral rat	> 8000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)

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LC50 Inhalation - Rat	> 4.6 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Experimental value, Inhalation (dust))
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kieselguhr, soda ash flux calcined (68855-54-9)

LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LC50 Inhalation - Rat	> 2.6 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
LC50 Inhalation - Rat (Dust/Mist)	> 2.6 mg/l/4h (4 h, OECD Guideline 403 (Acute Inhalation Toxicity), rat, male/female, Experimental value)

n-butyl acetate (123-86-4)

LD50 oral rat	10760 – 12789 mg/kg bodyweight (Equivalent or similar to OECD 423, Rat, Male / female, Experimental value, Oral)
LD50 dermal rabbit	14112 mg/kg bodyweight (Equivalent or similar to OECD 402, Rabbit, Male / female, Experimental value, Dermal)
LC50 Inhalation - Rat [ppm]	390 ppm/4h
LC50 Inhalation - Rat (Vapours)	> 21 mg/l/4h (4 h, OECD Test Guideline 403, rat, vapours)

lithium chloride (7447-41-8)

LD50 oral rat	526 mg/kg bodyweight Animal: rat, Animal sex: male
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal)), Guideline: EPA OPP 81-2 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 5.57 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation)), Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity)

dibutyltin dilaurate (77-58-7)

LD50 oral rat	2071 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 1207 - 5106
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))

2-methoxy-1-methylethyl acetate (108-65-6)

LD50 oral rat	6190 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LD50 dermal rabbit	> 5000 mg/kg bodyweight (Equivalent or similar to OECD 402, Rabbit, Male / female, Experimental value, Dermal)
LC50 Inhalation - Rat [ppm]	1728 ppm/4h (4 h, OECD Guideline 403 (Acute Inhalation Toxicity), rat, male/female, Inhalation, vapours)

reaction mass of ethylbenzene, m-xylene and p-xylene

LD50 oral rat	3523 mg/kg (EU Method B.1 (Acute Toxicity (Oral), rat, male)
LD50 dermal rabbit	12126 mg/kg bodyweight Animal: rabbit, Animal sex: male
LC50 Inhalation - Rat [ppm]	6350 ppm/4h (4 h, EU Method B.2 (Acute Toxicity (Inhalation)), rat, male, Inhalation, vapours)

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solvent naphtha (petroleum), light aromatic (64742-95-6)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit	> 3160 mg/kg (OECD Test Guideline 402)
LC50 Inhalation - Rat (Vapours)	> 6.193 mg/l/4h (4 h, OECD Test Guideline 403, vapours)
quartz (14808-60-7)	
LD50 oral rat	> 500 mg/kg
dolomite (16389-88-1)	
LD50 oral rat	> 2000 mg/kg (OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure), rat, female, Experimental value)
calcium carbonate (471-34-1)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method), Guideline: EU Method B.1 bis (Acute Oral Toxicity - Fixed Dose Procedure)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))
LC50 Inhalation - Rat	> 3 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation)), Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity)
LC50 Inhalation - Rat (Dust/Mist)	> 3 mg/l/4h (4 h, OECD Guidelines 403 (Acute Toxicity Inhalation), rat, male/female, Experimental value)
Xylene (1330-20-7)	
LD50 oral rat	3523 mg/kg bodyweight (Equivalent or similar to EU Method B.1: Acute Toxicity (Oral), Rat, Male, Experimental value, Oral, 14 day(s))
LD50 dermal rat	12126 mg/kg (Non-GLP, read-across from supporting substance, single dermal dose under occlusion followed by observation for 14 days)
LD50 dermal rabbit	12126 mg/kg bodyweight Animal: rabbit, Animal sex: male
LC50 Inhalation - Rat [ppm]	6700 ppm/4h (EU Method B.2 (Acute Toxicity (Inhalation)), 4h, rat, male)
Ethylbenzene (100-41-4)	
LD50 oral rat	3500 mg/kg (Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	15432 mg/kg bodyweight (24 h, Rabbit, Male, Experimental value, Dermal)
LC50 Inhalation - Rat	17.8 mg/l (4 h, Rat, Male, Experimental value, Inhalation (vapours))
octamethylcyclotetrasiloxane (556-67-2)	
LD50 oral rat	> 4800 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rat	> 2400 mg/kg bodyweight (Equivalent or similar to OECD 402, Rat, Male / female, Experimental value, Dermal)
LC50 Inhalation - Rat	36 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)

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decamethylcyclopentasiloxane (541-02-6)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	8.67 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EPA OTS 798.1150 (Acute inhalation toxicity), 95% CL: 7,3 - 10,32

Dodecamethylcyclohexasiloxane (540-97-6)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

reaction mass of α -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- ω -hydroxypoly(oxyethylene) and α -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- ω -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyloxypoly(oxyethylene)	
LD50 oral rat	> 5000 mg/kg (OECD Guideline No. 401 (equivalent to Annex V), limit test, rat, male/female)
LD50 dermal rat	> 2000 mg/kg (OECD Guideline No. 402 (equivalent to Annex V), limit test, rat, male/female)
LC50 Inhalation - Rat	5800 mg/l (OECD Guideline 403, 14d, rat)

reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (1065336-91-5)	
LD50 oral rat	3230 mg/kg (OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method), rat, male/female)
LD50 dermal rat	> 3170 mg/kg (OECD Guideline 402 (Acute Dermal Toxicity), read-across,

Unknown acute toxicity (CLP) - SDS : 0.57% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Vapours))

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitisation : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

reaction mass of ethylbenzene, m-xylene and p-xylene	
IARC group	2B - Possibly carcinogenic to humans

Xylene (1330-20-7)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified

acetone (67-64-1)	
LOAEL (animal/female, F0/P)	11298 mg/kg bodyweight Animal: mouse, Animal sex: female
NOAEL (animal/male, F0/P)	900 mg/kg bodyweight Animal: rat, Animal sex: male, Remarks on results: other:Generation not specified (migrated information)

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dibutyltin dilaurate (77-58-7)	
NOAEL (animal/male, F0/P)	1.9 – 2.3 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)
NOAEL (animal/female, F0/P)	1.7 – 2.4 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)

STOT-single exposure : May cause drowsiness or dizziness.

acetone (67-64-1)	
STOT-single exposure	May cause drowsiness or dizziness.

n-butyl acetate (123-86-4)	
STOT-single exposure	May cause drowsiness or dizziness.

dibutyltin dilaurate (77-58-7)	
STOT-single exposure	Causes damage to organs (thymus).

reaction mass of ethylbenzene, m-xylene and p-xylene	
STOT-single exposure	May cause respiratory irritation.

solvent naphtha (petroleum), light aromatic (64742-95-6)	
STOT-single exposure	May cause drowsiness or dizziness. May cause respiratory irritation.

Xylene (1330-20-7)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified

kieselguhr, soda ash flux calcined (68855-54-9)	
NOAEL (oral, rat, 90 days)	3737.9 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure (inhalation).

dibutyltin dilaurate (77-58-7)	
STOT-repeated exposure	Causes damage to organs (thymus) through prolonged or repeated exposure.

2-methoxy-1-methylethyl acetate (108-65-6)	
NOAEL (oral, rat, 90 days)	≥ 1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEL (dermal, rat/rabbit, 90 days)	> 1000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)

reaction mass of ethylbenzene, m-xylene and p-xylene	
LOAEL (oral, rat, 90 days)	150 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), Guideline: EPA OPP 82-1 (90-Day Oral Toxicity)

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NOAEL (oral, rat, 90 days)	150 mg/kg bodyweight/day (OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), female)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

calcium carbonate (471-34-1)

NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
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Xylene (1330-20-7)

LOAEL (oral, rat, 90 days)	150 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), Guideline: EPA OPP 82-1 (90-Day Oral Toxicity)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Ethylbenzene (100-41-4)

NOAEL (oral, rat, 90 days)	75 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
STOT-repeated exposure	May cause damage to organs (hearing sense) through prolonged or repeated exposure.

decamethylcyclopentasiloxane (541-02-6)

NOAEL (oral, rat, 90 days)	≥ 1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
NOAEL (dermal, rat/rabbit, 90 days)	≥ 1600 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)

Dodecamethylcyclohexasiloxane (540-97-6)

NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
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Aspiration hazard : Not classified

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Viscosity, kinematic	7777.778 mm ² /s
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11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Harmful to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Harmful to aquatic life with long lasting effects.

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Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

acetone (67-64-1)	
LC50 - Fish [1]	5540 mg/l (EU Method C.1, 96 h, <i>Salmo gairdneri</i> , Static system, Fresh water, Experimental value, Nominal concentration)
EC50 96h - Algae [1]	> 7000 mg/l (<i>Selenastrum capricornutum</i> , Static system, Fresh water, Experimental value, Nominal concentration)
LOEC (chronic)	> 79 mg/l Test organisms (species): <i>Daphnia magna</i> Duration: '21 d'
NOEC (chronic)	≥ 79 mg/l Test organisms (species): <i>Daphnia magna</i> Duration: '21 d'

n-butyl acetate (123-86-4)	
LC50 - Fish [1]	18 mg/l Test organisms (species): <i>Pimephales promelas</i>
LC50 - Fish [2]	62 mg/l (<i>Leuciscus idus</i> , static system)
EC50 - Crustacea [1]	44 mg/l Test organisms (species): <i>Daphnia</i> sp.
EC50 72h - Algae [1]	674.7 mg/l Test organisms (species): <i>Desmodesmus subspicatus</i> (previous name: <i>Scenedesmus subspicatus</i>)
NOEC (chronic)	23 mg/l Test organisms (species): <i>Daphnia magna</i> Duration: '21 d'
NOEC chronic crustacea	23 mg/l

2-methoxy-1-methylethyl acetate (108-65-6)	
LC50 - Fish [1]	> 100 mg/l Test organisms (species): <i>Oryzias latipes</i>
EC50 - Crustacea [1]	> 500 mg/l Test organisms (species): <i>Daphnia magna</i>
EC50 72h - Algae [1]	> 1000 mg/l Test organisms (species): <i>Pseudokirchneriella subcapitata</i> (previous names: <i>Raphidocelis subcapitata</i> , <i>Selenastrum capricornutum</i>)
EC50 96h - Algae [1]	> 1000 mg/l (OECD 201: Alga, Growth Inhibition Test, <i>Pseudokirchneriella subcapitata</i> , Static system, Fresh water, Experimental value, Nominal concentration)
NOEC (chronic)	≥ 100 mg/l Test organisms (species): <i>Daphnia magna</i> Duration: '21 d'
NOEC chronic fish	47.5 mg/l Test organisms (species): <i>Oryzias latipes</i> Duration: '14 d'

reaction mass of ethylbenzene, m-xylene and p-xylene	
LC50 - Fish [1]	2.6 mg/l Test organisms (species): <i>Oncorhynchus mykiss</i> (previous name: <i>Salmo gairdneri</i>)
EC50 - Crustacea [1]	> 3.4 mg/l Test organisms (species): <i>Ceriodaphnia dubia</i>
EC50 72h - Algae [1]	1.3 mg/l
NOEC chronic fish	> 1.3 mg/l Test organisms (species): <i>Oncorhynchus mykiss</i> (previous name: <i>Salmo gairdneri</i>) Duration: '56 d'

Xylene (1330-20-7)	
LC50 - Fish [1]	2.6 mg/l Test organisms (species): <i>Oncorhynchus mykiss</i> (previous name: <i>Salmo gairdneri</i>)
EC50 - Crustacea [1]	> 3.4 mg/l Test organisms (species): <i>Ceriodaphnia dubia</i>
EC50 72h - Algae [1]	2.2 mg/l
ErC50 algae	4.36 mg/l (OECD 201: Alga, Growth Inhibition Test, 73 h, <i>Pseudokirchneriella subcapitata</i> , Static system, Fresh water, Experimental value, GLP)
NOEC chronic fish	> 1.3 mg/l Test organisms (species): <i>Oncorhynchus mykiss</i> (previous name: <i>Salmo gairdneri</i>) Duration: '56 d'

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reaction mass of α -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- ω -hydroxypoly(oxyethylene) and α -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- ω -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyloxypoly(oxyethylene)

LC50 - Fish [1]	2.8 mg/l (96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	4 mg/l (48 h, Daphnia magna, Static system, Fresh water, Experimental value, Nominal concentration)
ErC50 algae	> 100 mg/l (72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)

12.2. Persistence and degradability

acetone (67-64-1)

Persistence and degradability	Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.43 g O ₂ /g substance
Chemical oxygen demand (COD)	1.92 g O ₂ /g substance
ThOD	2.2 g O ₂ /g substance
BOD (% of ThOD)	0.872 (20 day(s), Literature study)

kieselguhr, soda ash flux calcined (68855-54-9)

Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

n-butyl acetate (123-86-4)

Persistence and degradability	Readily biodegradable in water.
ThOD	2.21 g O ₂ /g substance
BOD (% of ThOD)	0.46

2-methoxy-1-methylethyl acetate (108-65-6)

Persistence and degradability	Readily biodegradable in the soil. Readily biodegradable in water.
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Xylene (1330-20-7)

Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
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12.3. Bioaccumulative potential

acetone (67-64-1)

BCF - Fish [1]	0.69 (Pisces)
BCF - Other aquatic organisms [1]	3 (BCFWIN, Calculated value)
Partition coefficient n-octanol/water (Log Pow)	-0.24 (Test data)
Bioaccumulative potential	Not bioaccumulative.

kieselguhr, soda ash flux calcined (68855-54-9)

Bioaccumulative potential	No test data of component(s) available.
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n-butyl acetate (123-86-4)	
BCF - Fish [1]	15.3 (Calculated value)
Partition coefficient n-octanol/water (Log Pow)	2.3 (Test data, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

2-methoxy-1-methylethyl acetate (108-65-6)	
Partition coefficient n-octanol/water (Log Pow)	1.2 (Experimental value, Equivalent or similar to OECD 117, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

Xylene (1330-20-7)	
BCF - Fish [1]	7.2 – 25.9 (56 day(s), Oncorhynchus mykiss, Flow-through system, Fresh water, Read-across)
Partition coefficient n-octanol/water (Log Pow)	3.2 (Read-across, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

reaction mass of α -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- ω -hydroxypoly(oxyethylene) and α -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- ω -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyloxypoly(oxyethylene)	
BCF - Fish [1]	2658 – 3430 (502 h, Oncorhynchus mykiss, Flow-through system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	4.6 (Experimental value, Equivalent or similar to OECD 117, 25 °C)

12.4. Mobility in soil

acetone (67-64-1)	
Surface tension	0.0237 N/m
Ecology - soil	No (test)data on mobility of the substance available.

n-butyl acetate (123-86-4)	
Surface tension	0.0163 N/m (20 °C)
Partition coefficient n-octanol/water (Log Koc)	1.268 – 1.844 (log Koc, SRC PCKOCWIN v2.0, QSAR)
Ecology - soil	Low potential for adsorption in soil.

2-methoxy-1-methylethyl acetate (108-65-6)	
Surface tension	29.4 mN/m (20 °C, 100 vol %, EU Method A.5: Surface tension)
Partition coefficient n-octanol/water (Log Koc)	0.264 (log Koc, QSAR)
Ecology - soil	Highly mobile in soil.

Xylene (1330-20-7)	
Surface tension	28.01 – 29.76 mN/m (25 °C)
Partition coefficient n-octanol/water (Log Koc)	2.73 (log Koc, Equivalent or similar to OECD 121, Read-across)
Ecology - soil	Low potential for adsorption in soil. May be harmful to plant growth, blooming and fruit formation.

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12.5. Results of PBT and vPvB assessment

Component

acetone (67-64-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
n-butyl acetate (123-86-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
2-methoxy-1-methylethyl acetate (108-65-6)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Xylene (1330-20-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information	: Flammable vapours may accumulate in the container.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number or ID number

UN-No. (ADR)	: UN 1263
UN-No. (IMDG)	: UN 1263
UN-No. (IATA)	: UN 1263
UN-No. (ADN)	: UN 1263
UN-No. (RID)	: UN 1263

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: PAINT
Proper Shipping Name (IMDG)	: PAINT
Proper Shipping Name (IATA)	: Paint
Proper Shipping Name (ADN)	: PAINT
Proper Shipping Name (RID)	: PAINT
Transport document description (ADR)	: UN 1263 PAINT, 3, II, (D/E)
Transport document description (IMDG)	: UN 1263 PAINT, 3, II
Transport document description (IATA)	: UN 1263 Paint, 3, II
Transport document description (ADN)	: UN 1263 PAINT, 3, II
Transport document description (RID)	: UN 1263 PAINT, 3, II

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	: 3
Danger labels (ADR)	: 3

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: 

IMDG

Transport hazard class(es) (IMDG) : 3
Danger labels (IMDG) : 3



IATA

Transport hazard class(es) (IATA) : 3
Danger labels (IATA) : 3



ADN

Transport hazard class(es) (ADN) : 3
Danger labels (ADN) : 3



RID

Transport hazard class(es) (RID) : 3
Danger labels (RID) : 3



14.4. Packing group

Packing group (ADR) : II
Packing group (IMDG) : II
Packing group (IATA) : II
Packing group (ADN) : II
Packing group (RID) : II

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR) : F1
Special provisions (ADR) : 163, 367, 640D, 650
Limited quantities (ADR) : 5I
Excepted quantities (ADR) : E2
Packing instructions (ADR) : P001, IBC02, R001
Special packing provisions (ADR) : PP1

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Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T4
Portable tank and bulk container special provisions (ADR)	: TP1, TP8, TP28
Tank code (ADR)	: LGBF
Vehicle for tank carriage	: FL
Transport category (ADR)	: 2
Special provisions for carriage - Operation (ADR)	: S2, S20
Hazard identification number (Kemler No.)	: 33
Orange plates	:



Tunnel restriction code (ADR)	: D/E
EAC code	: •3YE

Transport by sea

Special provisions (IMDG)	: 163, 367
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E2
Packing instructions (IMDG)	: P001
Special packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG)	: IBC02
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1, TP8, TP28
EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-E
Stowage category (IMDG)	: B
Properties and observations (IMDG)	: Miscibility with water depends upon the composition.

Air transport

PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y341
PCA limited quantity max net quantity (IATA)	: 1L
PCA packing instructions (IATA)	: 353
PCA max net quantity (IATA)	: 5L
CAO packing instructions (IATA)	: 364
CAO max net quantity (IATA)	: 60L
Special provisions (IATA)	: A3, A72, A192
ERG code (IATA)	: 3L

Inland waterway transport

Classification code (ADN)	: F1
Special provisions (ADN)	: 163, 367, 640D, 650
Limited quantities (ADN)	: 5 L
Excepted quantities (ADN)	: E2
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01
Number of blue cones/lights (ADN)	: 1

Rail transport

Classification code (RID)	: F1
Special provisions (RID)	: 163, 367, 640D, 650
Limited quantities (RID)	: 5L
Excepted quantities (RID)	: E2
Packing instructions (RID)	: P001, IBC02, R001
Special packing provisions (RID)	: PP1
Mixed packing provisions (RID)	: MP19
Portable tank and bulk container instructions (RID)	: T4
Portable tank and bulk container special provisions (RID)	: TP1, TP8, TP28
Tank codes for RID tanks (RID)	: LGBF
Transport category (RID)	: 2
Colis express (express parcels) (RID)	: CE7
Hazard identification number (RID)	: 33

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14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

Reference code	Applicable on	Entry title or description
3(a)	RAPTOR LINER - BLACK ; 2-methoxy-1-methylethyl acetate ; reaction mass of ethylbenzene, m-xylene and p-xylene ; n-butyl acetate ; Xylene ; acetone	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F
3(b)	RAPTOR LINER - BLACK ; reaction mass of ethylbenzene, m-xylene and p-xylene ; n-butyl acetate ; Xylene ; acetone ; reaction mass of α -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- ω -hydroxypoly(oxyethylene) and α -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- ω -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyloxypoly(oxyethylene) ; reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
3(c)	RAPTOR LINER - BLACK ; reaction mass of α -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- ω -hydroxypoly(oxyethylene) and α -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- ω -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyloxypoly(oxyethylene) ; reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1
40.	RAPTOR LINER - BLACK ; 2-methoxy-1-methylethyl acetate ; reaction mass of ethylbenzene, m-xylene and p-xylene ; n-butyl acetate ; Xylene ; acetone	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.

Contains no substance on the REACH candidate list $\geq 0,1\%$ / SCL

Contains organic solvents ($\geq 1\%$)

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

VOC content : 417 g/l

15.1.2. National regulations

No additional information available

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15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BLV	Biological limit value
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
EN	European Standard
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

Full text of H- and EUH-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3

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Asp. Tox. 1	Aspiration hazard, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1A	Skin sensitisation, category 1A
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

For professional use only.

The information contained within this Safety Data Sheet (SDS) is believed to be correct as of the date issued however it is subject to change from time to time. It does not purport to be all inclusive or exhaustive and shall only be used as a guide. U-POL makes no warranties, expressed or implied, including but not limited to, any implied warranty of fitness for a given purpose or usage. It is the Buyers responsibility to ensure the suitability of the products for their own use and to check the information is up to date. U-POL cannot be held responsible for the suitability of use for any of its products, considering the wide range of factors such as application, substrates and handling methods. Since these conditions of use are outside of our control, the company shall not be held liable for any damage resulting from handling or from contact with the product detailed. Moreover, addition of reducers, hardeners or other additives over and above U-POL's recommendations for use, may substantially alter the composition and hazards of the product. U-POL data sheets are available via the U-POL website at WWW.U-POL.COM.



DRIVING SURFACE PERFECTION

SYSTEM 20 BRILLIANT HS CLEARCOAT (2:1)

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Product Reference code: according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
SDS Ref. (EU): S2081-SDS
Issue date: 13/02/2015 Revision date: 17/02/2022 Supersedes version of: 28/08/2020 Version: 6.0

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

1.1. Product identifier

Product form : Mixture
Trade name : SYSTEM 20 BRILLIANT HS CLEARCOAT (2:1)
UFI : 3KW0-V0HP-U00N-AHA6
Product code : S2081/1, S2081/5
Product group : Clearcoat

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

1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use
Use of the substance/mixture : Coatings and paints, thinners, paint removers
Function or use category : Topcoat

1.2.2. Uses advised against

Restrictions on use : Consumer uses: Private households (= general public = consumers)

1.3. Details of the supplier of the safety data sheet

Manufacturer

U-POL Limited Ltd
Denington Road
GB- NN8 2QH Wellingborough – Northamptonshire
United Kingdom
T +44 (0) 1933 230310
technicalsupport@u-pol.com - www.u-pol.com

Importer

U-POL Netherlands B.V. B.V.
Hoorgoordreef 15
NL- 1101BA Amsterdam
Netherlands
T +31 20 240 2216
technicalsupport@u-pol.com - www.u-pol.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: +44 (0) 870 8200418 (24 hrs)

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	NHS England, Scotland & Wales	-	Call 111 or a Doctor	In Northern Ireland, contact your local GP or pharmacist during normal hours (www.gpoutofhours.hscni.net)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 3 H226
Skin corrosion/irritation, Category 2 H315
Serious eye damage/eye irritation, Category 2 H319
Skin sensitisation, Category 1 H317
Carcinogenicity, Category 2 H351

SYSTEM 20 BRILLIANT HS CLEARCOAT (2:1)

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Specific target organ toxicity — Single exposure, Category 3, Narcosis H336
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation H335
Specific target organ toxicity — Repeated exposure, Category 2 H373
Hazardous to the aquatic environment — Chronic Hazard, Category 3 H412
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Flammable liquid and vapour. May cause damage to organs through prolonged or repeated exposure. May cause drowsiness or dizziness. May cause respiratory irritation. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



Signal word (CLP)

: Warning

Contains

: isobutyl methyl ketone, Xylene, n-butyl acetate, hydrocarbons, C9, aromatics, reaction mass of α -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- ω -hydroxypoly(oxyethylene) and α -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- ω -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyloxypoly(oxyethylene), reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

Hazard statements (CLP)

: H226 - Flammable liquid and vapour.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation.
H336 - May cause drowsiness or dizziness.
H351 - Suspected of causing cancer.
H373 - May cause damage to organs through prolonged or repeated exposure.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP)

: P210 - Keep away from heat, hot surfaces, open flames, sparks. — No smoking.
P261 - Avoid breathing fume, vapours.
P264 - Wash hands thoroughly after handling.
P280 - Wear face protection, protective clothing, protective gloves.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P403+P235 - Store in a well-ventilated place. Keep cool.

Unknown acute toxicity (CLP) - SDS

: 0.23% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Vapours))

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component	
n-butyl acetate (123-86-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Xylene (1330-20-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
4-methylpentan-2-one; isobutyl methyl ketone (108-10-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

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Component	
2-methoxy-1-methylethyl acetate (108-65-6)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
ethylbenzene (100-41-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
n-butyl acetate substance with a Community workplace exposure limit	CAS-No.: 123-86-4 EC-No.: 204-658-1 EC Index-No.: 607-025-00-1 REACH-no: 01-2119485493-29	5 – 20	Flam. Liq. 3, H226 STOT SE 3, H336
hydrocarbons, C9, aromatics	CAS-No.: 64742-95-6 EC-No.: 918-668-5 REACH-no: 01-2119455851-35	3 – 20	Flam. Liq. 3, H226 STOT SE 3, H336 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Xylene substance with a Community workplace exposure limit (Note C)	CAS-No.: 1330-20-7 EC-No.: 215-535-7 EC Index-No.: 601-022-00-9 REACH-no: 01-2119488216-32	10 – 20	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304
4-methylpentan-2-one; isobutyl methyl ketone substance with a Community workplace exposure limit	CAS-No.: 108-10-1 EC-No.: 203-550-1 EC Index-No.: 606-004-00-4 REACH-no: 01-2119473980-30	5 – 10	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H336
2-methoxy-1-methylethyl acetate substance with a Community workplace exposure limit	CAS-No.: 108-65-6 EC-No.: 203-603-9 EC Index-No.: 607-195-00-7 REACH-no: 01-2119475791-29	3 – 10	Flam. Liq. 3, H226

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
reaction mass of ethylbenzene, m-xylene and p-xylene	EC-No.: 905-562-9 REACH-no: 01-2119555267-33	1 – 5	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304
ethylbenzene substance with a Community workplace exposure limit	CAS-No.: 100-41-4 EC-No.: 202-849-4 EC Index-No.: 601-023-00-4 REACH-no: 01-2119489370-35	3 – 5	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 STOT RE 2, H373 Asp. Tox. 1, H304
reaction mass of α -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- ω -hydroxypoly(oxyethylene) and α -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- ω -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyloxypoly(oxyethylene)	CAS-No.: 104810-48-2 EC-No.: 400-830-7 EC Index-No.: 607-176-00-3 REACH-no: 01-0000015075-76	0.3 – 1	Skin Sens. 1A, H317 Aquatic Chronic 2, H411
reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	CAS-No.: 1065336-91-5 EC-No.: 915-687-0 REACH-no: 01-2119491304-40	0.1 – 0.25	Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Note C : Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: 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.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects	: May cause drowsiness or dizziness.
Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction. Repeated exposure may cause skin dryness or cracking.
Symptoms/effects after eye contact	: Eye irritation.

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

Treat symptomatically.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable liquid and vapour.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Protective clothing. Safety glasses. Gloves.
Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Do not breathe vapours, spray, fume. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage. Contain released product, collect/pump into suitable containers.
Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Do not breathe vapours, spray, fume. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes.
Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.
Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.
Storage temperature : < 25 °C
Storage area : Store in well ventilated area.

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Special rules on packaging : Keep only in original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

4-methylpentan-2-one; isobutyl methyl ketone (108-10-1)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	4-Methylpentan-2-one
IOEL TWA	83 mg/m ³
IOEL TWA [ppm]	20 ppm
IOEL STEL	208 mg/m ³
IOEL STEL [ppm]	50 ppm
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC COMMISSION DIRECTIVE 2000/39/EC
Ireland - Occupational Exposure Limits	
Local name	Methyl isobutyl ketone (MIBK) [Hexone, Isobutyl methyl ketone, 4-Methylpentan-2-one]
OEL TWA [1]	83 mg/m ³
OEL TWA [2]	20 ppm
OEL STEL	208 mg/m ³
OEL STEL [ppm]	50 ppm
Remark	Sk (Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body), IOELV (Indicative Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2020
Ireland - Biological limit values	
Local name	Methyl isobutyl ketone (MIBK)/ 4-methylpentan-2-one
BLV	1 mg/l Parameter: MIBK - Medium: urine - Sampling time: End of shift
Regulatory reference	Biological Monitoring Guidelines (HSA, 2011)
United Kingdom - Occupational Exposure Limits	
Local name	4-Methylpentan-2-one
WEL TWA (OEL TWA) [1]	208 mg/m ³
WEL TWA (OEL TWA) [2]	50 ppm
WEL STEL (OEL STEL)	416 mg/m ³
WEL STEL (OEL STEL) [ppm]	100 ppm
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
United Kingdom - Biological limit values	
Local name	4-methylpentan-2-one

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4-methylpentan-2-one; isobutyl methyl ketone (108-10-1)	
BMGV	20 µmol/l Parameter: 4-methylpentan-2-one - Medium: urine - Sampling time: Post shift
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
n-butyl acetate (123-86-4)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	n-Butyl acetate
IOEL TWA	241 mg/m ³
IOEL TWA [ppm]	50 ppm
IOEL STEL	723 mg/m ³
IOEL STEL [ppm]	150 ppm
Regulatory reference	COMMISSION DIRECTIVE (EU) 2019/1831
Ireland - Occupational Exposure Limits	
Local name	Butyl acetate
OEL TWA [1]	710 mg/m ³
OEL TWA [2]	150 ppm
OEL STEL	950 mg/m ³
OEL STEL [ppm]	200 ppm
Regulatory reference	Chemical Agents Code of Practice 2020
United Kingdom - Occupational Exposure Limits	
Local name	Butyl acetate
WEL TWA (OEL TWA) [1]	724 mg/m ³
WEL TWA (OEL TWA) [2]	150 ppm
WEL STEL (OEL STEL)	966 mg/m ³
WEL STEL (OEL STEL) [ppm]	200 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
2-methoxy-1-methylethyl acetate (108-65-6)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	2-Methoxy-1-methylethylacetate
IOEL TWA	275 mg/m ³
IOEL TWA [ppm]	50 ppm
IOEL STEL	550 mg/m ³
IOEL STEL [ppm]	100 ppm
Remark	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
Ireland - Occupational Exposure Limits	
Local name	2-Methoxy-1-methylethylacetate
OEL TWA [1]	275 mg/m ³
OEL TWA [2]	50 ppm
OEL STEL	550 mg/m ³

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2-methoxy-1-methylethyl acetate (108-65-6)	
OEL STEL [ppm]	100 ppm
Remark	Sk (Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body), IOELV (Indicative Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2020
United Kingdom - Occupational Exposure Limits	
Local name	1-Methoxypropyl acetate
WEL TWA (OEL TWA) [1]	274 mg/m ³
WEL TWA (OEL TWA) [2]	50 ppm
WEL STEL (OEL STEL)	548 mg/m ³
WEL STEL (OEL STEL) [ppm]	100 ppm
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
Xylene (1330-20-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Xylene, mixed isomers, pure
IOEL TWA	221 mg/m ³
IOEL TWA [ppm]	50 ppm
IOEL STEL	442 mg/m ³
IOEL STEL [ppm]	100 ppm
Remark	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
Ireland - Occupational Exposure Limits	
Local name	Xylene, mixed isomers
OEL TWA [1]	221 mg/m ³
OEL TWA [2]	50 ppm
OEL STEL	442 mg/m ³
OEL STEL [ppm]	100 ppm
Remark	Sk (Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body), IOELV (Indicative Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2020
Ireland - Biological limit values	
Local name	Xylene
BLV	1.5 g/g creatinine Parameter: methylhippuric acids - Medium: urine - Sampling time: End of Shift
Regulatory reference	Biological Monitoring Guidelines (HSA, 2011)
United Kingdom - Occupational Exposure Limits	
Local name	Xylene
WEL TWA (OEL TWA) [1]	220 mg/m ³

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Xylene (1330-20-7)	
WEL TWA (OEL TWA) [2]	50 ppm
WEL STEL (OEL STEL)	441 mg/m ³
WEL STEL (OEL STEL) [ppm]	100 ppm
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
United Kingdom - Biological limit values	
Local name	Xylene, o-, m-, p- or mixed isomers
BMGV	650 mmol/mol Creatinine Parameter: methyl hippuric acid - Medium: urine - Sampling time: Post shift
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
ethylbenzene (100-41-4)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Ethylbenzene
IOEL TWA	442 mg/m ³
IOEL TWA [ppm]	100 ppm
IOEL STEL	884 mg/m ³
IOEL STEL [ppm]	200 ppm
Remark	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
Ireland - Occupational Exposure Limits	
Local name	Ethylbenzene
OEL TWA [1]	442 mg/m ³
OEL TWA [2]	100 ppm
OEL STEL	884 mg/m ³
OEL STEL [ppm]	200 ppm
Remark	Sk (Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body), IOELV (Indicative Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2020
Ireland - Biological limit values	
Local name	Ethyl benzene
BLV	0.7 g/g creatinine Parameter: mandelic acid and phenylglyoxylic acid - Medium: urine - Sampling time: End of shift at end of workweek - Notations: Ns (Non-specific), Sq (Semi-quantitative) Parameter: ethylbenzene - Medium: end-exhaled air - Sampling time: Not critical - Notations: Sq (Semi-quantitative)
Regulatory reference	Biological Monitoring Guidelines (HSA, 2011)
United Kingdom - Occupational Exposure Limits	
Local name	Ethylbenzene
WEL TWA (OEL TWA) [1]	441 mg/m ³
WEL TWA (OEL TWA) [2]	100 ppm

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ethylbenzene (100-41-4)	
WEL STEL (OEL STEL)	552 mg/m ³
WEL STEL (OEL STEL) [ppm]	125 ppm
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

4-methylpentan-2-one; isobutyl methyl ketone (108-10-1)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	208 mg/m ³
Acute - local effects, inhalation	208 mg/m ³
Long-term - systemic effects, dermal	11.8 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	83 mg/m ³
Long-term - local effects, inhalation	83 mg/m ³
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	155.2 mg/m ³
Acute - local effects, inhalation	155.2 mg/m ³
Long-term - systemic effects, oral	4.2 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	14.7 mg/m ³
Long-term - systemic effects, dermal	4.2 mg/kg bodyweight/day
Long-term - local effects, inhalation	14.7 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0.6 mg/l
PNEC aqua (marine water)	0.06 mg/l
PNEC aqua (intermittent, freshwater)	1.5 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	8.27 mg/kg dwt
PNEC sediment (marine water)	0.83 mg/kg dwt
PNEC (Soil)	
PNEC soil	1.3 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	27.5 mg/l
n-butyl acetate (123-86-4)	
DNEL/DMEL (Workers)	
Acute - systemic effects, dermal	11 mg/kg bw/day
Acute - systemic effects, inhalation	600 mg/m ³

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n-butyl acetate (123-86-4)	
Acute - local effects, inhalation	600 mg/m ³
Long-term - systemic effects, dermal	11 mg/kg bw/day
Long-term - systemic effects, inhalation	300 mg/m ³
Long-term - local effects, inhalation	300 mg/m ³
DNEL/DMEL (General population)	
Acute - systemic effects, dermal	6 mg/kg bw/day
Acute - systemic effects, inhalation	300 mg/m ³
Acute - systemic effects, oral	2 mg/kg bw/day
Acute - local effects, inhalation	300 mg/m ³
Long-term - systemic effects, oral	2 mg/kg bw/day
Long-term - systemic effects, inhalation	35.7 mg/m ³
Long-term - systemic effects, dermal	6 mg/kg bw/day
Long-term - local effects, inhalation	35.7 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0.18 mg/l
PNEC aqua (marine water)	0.018 mg/l
PNEC aqua (intermittent, freshwater)	0.36 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.981 mg/kg dwt
PNEC sediment (marine water)	0.0981 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.0903 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	35.6 mg/l
2-methoxy-1-methylethyl acetate (108-65-6)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	550 mg/m ³
Long-term - systemic effects, dermal	796 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	275 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	36 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	33 mg/m ³
Long-term - systemic effects, dermal	320 mg/kg bodyweight/day
Long-term - local effects, inhalation	33 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0.635 mg/l
PNEC aqua (marine water)	0.0635 mg/l
PNEC aqua (intermittent, freshwater)	6.35 mg/l

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2-methoxy-1-methylethyl acetate (108-65-6)	
PNEC (Sediment)	
PNEC sediment (freshwater)	3.29 mg/kg dwt
PNEC sediment (marine water)	0.329 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.29 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	100 mg/l
reaction mass of α-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-hydroxypoly(oxyethylene) and α-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyloxypoly(oxyethylene) (104810-48-2)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	0.05 mg/kg bw/day
Long-term - systemic effects, inhalation	0.35 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	0.025 mg/kg bw/day
Long-term - systemic effects, inhalation	0.085 mg/m ³
Long-term - systemic effects, dermal	0.25 mg/kg bw/day
PNEC (Water)	
PNEC aqua (freshwater)	0.0023 mg/l
PNEC aqua (marine water)	0.00023 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	3.37 mg/kg dwt
PNEC sediment (marine water)	0.337 mg/kg dwt
PNEC (Soil)	
PNEC soil	2 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	10 mg/l
reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (1065336-91-5)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, inhalation	0.68 mg/m ³ (DGUV DNEL List 2019)
Xylene (1330-20-7)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	289 mg/m ³
Acute - local effects, inhalation	289 mg/m ³
Long-term - systemic effects, dermal	180 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	77 mg/m ³
Long-term - local effects, inhalation	77 mg/m ³

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Xylene (1330-20-7)	
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	174 mg/m ³
Acute - local effects, inhalation	174 mg/m ³
Long-term - systemic effects, oral	1.6 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	14.8 mg/m ³
Long-term - systemic effects, dermal	108 mg/kg bodyweight/day
Long-term - local effects, inhalation	65.3 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0.327 mg/l
PNEC aqua (marine water)	0.327 mg/l
PNEC aqua (intermittent, freshwater)	0.327 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	12.46 mg/kg dwt
PNEC sediment (marine water)	12.46 mg/kg dwt
PNEC (Soil)	
PNEC soil	2.31 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	6.58 mg/l
hydrocarbons, C9, aromatics (64742-95-6)	
DNEL/DMEL (Workers)	
Long-term - local effects, dermal	25 mg/kg bw/day
Long-term - systemic effects, inhalation	150 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	11 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	32 mg/m ³
Long-term - systemic effects, dermal	11 mg/kg bodyweight/day
ethylbenzene (100-41-4)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	293 mg/m ³
Long-term - systemic effects, dermal	180 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	77 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	1.6 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	15 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0.1 mg/l
PNEC aqua (marine water)	0.01 mg/l
PNEC aqua (intermittent, freshwater)	0.1 mg/l

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ethylbenzene (100-41-4)	
PNEC (Sediment)	
PNEC sediment (freshwater)	13.7 mg/kg dwt
PNEC sediment (marine water)	1.37 mg/kg dwt
PNEC (Soil)	
PNEC soil	2.68 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	0.02 g/kg food
PNEC (STP)	
PNEC sewage treatment plant	9.6 mg/l

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Gas mask. Gloves. Protective clothing. Safety glasses.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

Other skin protection

Materials for protective clothing:

Impermeable clothing

8.2.2.3. Respiratory protection

Respiratory protection:

Air-fed respiratory protective equipment should be worn when this product is sprayed

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Appearance	: Liquid.
Odour	: aromatic.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: > 35 °C
Flammability	: Not applicable
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: 27 °C
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: ≈ 171 (162 – 181) mm²/s (38-48s DIN4 @ 20°C)
Solubility	: insoluble in water. soluble in most organic solvents.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: 0.97 (0.96 – 0.98) g/cm³
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle size	: Not applicable
Particle size distribution	: Not applicable
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle aggregation state	: Not applicable
Particle agglomeration state	: Not applicable
Particle specific surface area	: Not applicable
Particle dustiness	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC content : 521 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapour.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

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10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

4-methylpentan-2-one; isobutyl methyl ketone (108-10-1)

LD50 oral rat	2080 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 1,91 - 2,27
LD50 dermal rat	≥ 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat (Vapours)	10 – 20 mg/l/4h

n-butyl acetate (123-86-4)

LD50 oral rat	10760 – 12789 mg/kg bodyweight (Equivalent or similar to OECD 423, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 14112 mg/kg bodyweight (Equivalent or similar to OECD 402, Rabbit, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	23.4 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat)
LC50 Inhalation - Rat [ppm]	390 ppm/4h
LC50 Inhalation - Rat (Vapours)	> 21 mg/l/4h (4 h, OECD Test Guideline 403, rat, vapours)

2-methoxy-1-methylethyl acetate (108-65-6)

LD50 oral rat	6190 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LD50 dermal rabbit	> 5000 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat [ppm]	1728 ppm/4h (4 h, OECD Guideline 403 (Acute Inhalation Toxicity), rat, male/female, Inhalation, vapours)

reaction mass of α-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-hydroxypoly(oxyethylene) and α-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyloxypoly(oxyethylene) (104810-48-2)

LD50 oral rat	> 5000 mg/kg (OECD Guideline No. 401 (equivalent to Annex V), limit test, rat, male/female)
LD50 dermal rat	> 2000 mg/kg (OECD Guideline No. 402 (equivalent to Annex V), limit test, rat, male/female)
LC50 Inhalation - Rat	5800 mg/l (OECD Guideline 403, 14d, rat)

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reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (1065336-91-5)	
LD50 oral rat	3230 mg/kg (OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method), rat, male/female)
LD50 dermal rat	> 3170 mg/kg (OECD Guideline 402 (Acute Dermal Toxicity), read-across,
dibutyltin dilaurate (77-58-7)	
LD50 oral rat	2071 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 1207 - 5106
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))
reaction mass of ethylbenzene, m-xylene and p-xylene	
LD50 oral rat	3523 mg/kg (EU Method B.1 (Acute Toxicity (Oral), rat, male)
LD50 dermal rabbit	12126 mg/kg bodyweight Animal: rabbit, Animal sex: male
LC50 Inhalation - Rat [ppm]	6350 ppm/4h (4 h, EU Method B.2 (Acute Toxicity (Inhalation)), rat, male, Inhalation, vapours)
cellulose acetate butyrate (9004-36-8)	
LD50 oral rat	> 3200 mg/kg
LD50 dermal	> 1000 mg/kg (Guinea pig)
Xylene (1330-20-7)	
LD50 oral rat	3523 mg/kg bodyweight (Equivalent or similar to EU Method B.1: Acute Toxicity (Oral), Rat, Male, Experimental value, Oral, 14 day(s))
LD50 dermal rat	12126 mg/kg (Non-GLP, read-across from supporting substance, single dermal dose under occlusion followed by observation for 14 days)
LD50 dermal rabbit	12126 mg/kg bodyweight Animal: rabbit, Animal sex: male
LC50 Inhalation - Rat [ppm]	6700 ppm/4h (EU Method B.2 (Acute Toxicity (Inhalation)), 4h, rat, male)
hydrocarbons, C9, aromatics (64742-95-6)	
LD50 oral rat	8400 ml/kg
LD50 dermal rabbit	3160 mg/kg bodyweight (OECD Guideline 402 (Acute Dermal Toxicity), rat, male/female
LC50 Inhalation - Rat [ppm]	3400 ppm/4h
LC50 Inhalation - Rat (Vapours)	> 5 mg/l/4h
octamethylcyclotetrasiloxane (556-67-2)	
LD50 oral rat	> 4800 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rat	> 2400 mg/kg bodyweight (Equivalent or similar to OECD 402, Rat, Male / female, Experimental value, Dermal)
LC50 Inhalation - Rat	36 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
decamethylcyclopentasiloxane (541-02-6)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	8.67 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EPA OTS 798.1150 (Acute inhalation toxicity), 95% CL: 7,3 - 10,32

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Dodecamethylcyclhexasiloxane (540-97-6)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
ethylbenzene (100-41-4)	
LD50 oral rat	3500 mg/kg (Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	15432 mg/kg bodyweight (24 h, Rabbit, Male, Experimental value, Dermal)
LC50 Inhalation - Rat	17.8 mg/l (4 h, Rat, Male, Experimental value, Inhalation (vapours))
Unknown acute toxicity (CLP) - SDS	: 0.23% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Vapours))
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Suspected of causing cancer.
4-methylpentan-2-one; isobutyl methyl ketone (108-10-1)	
IARC group	2B - Possibly carcinogenic to humans
reaction mass of ethylbenzene, m-xylene and p-xylene	
IARC group	2B - Possibly carcinogenic to humans
Xylene (1330-20-7)	
IARC group	3 - Not classifiable
ethylbenzene (100-41-4)	
IARC group	2B - Possibly carcinogenic to humans
Reproductive toxicity	: Not classified
dibutyltin dilaurate (77-58-7)	
NOAEL (animal/male, F0/P)	1.9 – 2.3 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)
NOAEL (animal/female, F0/P)	1.7 – 2.4 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)
hydrocarbons, C9, aromatics (64742-95-6)	
NOAEL (animal/male, F0/P)	7500 mg/kg
NOAEL (animal/female, F0/P)	7500 mg/kg
STOT-single exposure	: May cause drowsiness or dizziness. May cause respiratory irritation.
4-methylpentan-2-one; isobutyl methyl ketone (108-10-1)	
STOT-single exposure	May cause drowsiness or dizziness.
n-butyl acetate (123-86-4)	
STOT-single exposure	May cause drowsiness or dizziness.
2-methoxypropyl acetate (70657-70-4)	
STOT-single exposure	May cause respiratory irritation.
dibutyltin dilaurate (77-58-7)	
STOT-single exposure	Causes damage to organs (thymus).

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reaction mass of ethylbenzene, m-xylene and p-xylene	
STOT-single exposure	May cause respiratory irritation.
Xylene (1330-20-7)	
STOT-single exposure	May cause respiratory irritation.
hydrocarbons, C9, aromatics (64742-95-6)	
STOT-single exposure	May cause drowsiness or dizziness. May cause respiratory irritation.
STOT-repeated exposure	: May cause damage to organs through prolonged or repeated exposure.
4-methylpentan-2-one; isobutyl methyl ketone (108-10-1)	
LOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
NOAEL (oral, rat, 90 days)	250 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
NOAEC (inhalation, rat, vapour, 90 days)	4.106 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
2-methoxy-1-methylethyl acetate (108-65-6)	
NOAEL (oral, rat, 90 days)	≥ 1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEL (dermal, rat/rabbit, 90 days)	> 1000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
dibutyltin dilaurate (77-58-7)	
STOT-repeated exposure	Causes damage to organs (thymus) through prolonged or repeated exposure.
reaction mass of ethylbenzene, m-xylene and p-xylene	
LOAEL (oral, rat, 90 days)	150 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), Guideline: EPA OPP 82-1 (90-Day Oral Toxicity)
NOAEL (oral, rat, 90 days)	150 mg/kg bodyweight/day (OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), female)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Xylene (1330-20-7)	
LOAEL (oral, rat, 90 days)	150 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), Guideline: EPA OPP 82-1 (90-Day Oral Toxicity)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
hydrocarbons, C9, aromatics (64742-95-6)	
NOAEL (oral, rat, 90 days)	600 mg/kg bodyweight/day
NOAEC (inhalation, rat, vapour, 90 days)	900 – 1800 mg/m ³
decamethylcyclopentasiloxane (541-02-6)	
NOAEL (oral, rat, 90 days)	≥ 1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
NOAEL (dermal, rat/rabbit, 90 days)	≥ 1600 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)

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Dodecamethylcyclohexasiloxane (540-97-6)	
NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

ethylbenzene (100-41-4)	
NOAEL (oral, rat, 90 days)	75 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
STOT-repeated exposure	May cause damage to organs (hearing sense) through prolonged or repeated exposure.

Aspiration hazard : Not classified

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Viscosity, kinematic	≈ 171 (162 – 181) mm ² /s (38-48s DIN4 @ 20°C)

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Harmful to aquatic life with long lasting effects.

4-methylpentan-2-one; isobutyl methyl ketone (108-10-1)	
LC50 - Fish [1]	> 179 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	> 200 mg/l Test organisms (species): Daphnia magna

n-butyl acetate (123-86-4)	
LC50 - Fish [1]	18 mg/l Test organisms (species): Pimephales promelas
LC50 - Fish [2]	62 mg/l (Leuciscus idus, static system)
EC50 - Crustacea [1]	44 mg/l Test organisms (species): Daphnia sp.
ErC50 algae	397 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Read-across, GLP)
NOEC (chronic)	23 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic crustacea	23 mg/l

2-methoxy-1-methylethyl acetate (108-65-6)	
LC50 - Fish [1]	> 100 mg/l Test organisms (species): Oryzias latipes
EC50 - Crustacea [1]	> 500 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 1000 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
ErC50 algae	> 1000 mg/l (OECD 201: Alga, Growth Inhibition Test, 96 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)
NOEC (chronic)	≥ 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	47.5 mg/l Test organisms (species): Oryzias latipes Duration: '14 d'

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reaction mass of α-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-hydroxypoly(oxyethylene) and α-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyloxypoly(oxyethylene) (104810-48-2)	
LC50 - Fish [1]	2.8 mg/l (96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	4 mg/l (48 h, Daphnia magna, Static system, Fresh water, Experimental value, Nominal concentration)
ErC50 algae	> 100 mg/l (72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)
reaction mass of ethylbenzene, m-xylene and p-xylene	
LC50 - Fish [1]	2.6 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	> 3.4 mg/l Test organisms (species): Ceriodaphnia dubia
EC50 72h - Algae [1]	1.3 mg/l
NOEC chronic fish	> 1.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '56 d'
Xylene (1330-20-7)	
LC50 - Fish [1]	2.6 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	> 3.4 mg/l Test organisms (species): Ceriodaphnia dubia
EC50 72h - Algae [1]	2.2 mg/l
ErC50 algae	4.36 mg/l (OECD 201: Alga, Growth Inhibition Test, 73 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
NOEC chronic fish	> 1.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '56 d'
hydrocarbons, C9, aromatics (64742-95-6)	
LC50 - Fish [1]	9.22 mg/l (Oncorhynchus mykiss)
EC50 - Crustacea [1]	6.14 mg/l 48 h, Daphnia magna
ErC50 algae	2.9 mg/l
ethylbenzene (100-41-4)	
LC50 - Fish [1]	5.1 mg/l Test organisms (species): Menidia menidia
EC50 - Crustacea [1]	1.8 – 2.4 mg/l (US EPA, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
EC50 72h - Algae [1]	4.9 mg/l Test organisms (species): Skeletonema costatum
EC50 72h - Algae [2]	5.4 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	7.7 mg/l Test organisms (species): Skeletonema costatum
EC50 96h - Algae [2]	3.6 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
LOEC (chronic)	1.7 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'
NOEC (chronic)	0.96 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'

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12.2. Persistence and degradability

4-methylpentan-2-one; isobutyl methyl ketone (108-10-1)

Persistence and degradability	Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	2.06 g O ₂ /g substance
Chemical oxygen demand (COD)	2.16 g O ₂ /g substance
ThOD	2.72 g O ₂ /g substance

n-butyl acetate (123-86-4)

Persistence and degradability	Readily biodegradable in water.
ThOD	2.21 g O ₂ /g substance
BOD (% of ThOD)	0.46

2-methoxy-1-methylethyl acetate (108-65-6)

Persistence and degradability	Readily biodegradable in the soil. Readily biodegradable in water.
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Xylene (1330-20-7)

Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
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hydrocarbons, C9, aromatics (64742-95-6)

Persistence and degradability	Readily biodegradable in water.
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ethylbenzene (100-41-4)

Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.44 g O ₂ /g substance
Chemical oxygen demand (COD)	2.1 g O ₂ /g substance
ThOD	3.17 g O ₂ /g substance

12.3. Bioaccumulative potential

4-methylpentan-2-one; isobutyl methyl ketone (108-10-1)

Partition coefficient n-octanol/water (Log Pow)	1.9 (Experimental value, Equivalent or similar to OECD 117, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

n-butyl acetate (123-86-4)

Partition coefficient n-octanol/water (Log Pow)	2.3 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

2-methoxy-1-methylethyl acetate (108-65-6)

Partition coefficient n-octanol/water (Log Pow)	1.2 (Experimental value, Equivalent or similar to OECD 117, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

reaction mass of α-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-hydroxypoly(oxyethylene) and α-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyloxypoly(oxyethylene) (104810-48-2)

BCF - Fish [1]	2658 – 3430 (502 h, Oncorhynchus mykiss, Flow-through system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	4.6 (Experimental value, Equivalent or similar to OECD 117, 25 °C)

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Xylene (1330-20-7)	
BCF - Fish [1]	7.2 – 25.9 (56 day(s), Oncorhynchus mykiss, Flow-through system, Fresh water, Read-across)
Partition coefficient n-octanol/water (Log Pow)	3.2 (Read-across, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

ethylbenzene (100-41-4)	
BCF - Fish [1]	1 (6 week(s), Oncorhynchus kisutch, Flow-through system, Salt water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	3.6 (Experimental value, EU Method A.8: Partition Coefficient, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

4-methylpentan-2-one; isobutyl methyl ketone (108-10-1)	
Surface tension	No data available in the literature
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.008 (log Koc, Weight of evidence, Calculated value)
Ecology - soil	Low potential for adsorption in soil.

n-butyl acetate (123-86-4)	
Surface tension	61.3 mN/m (20 °C, 0.1 %, OECD 115: Surface Tension of Aqueous Solutions)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.268 – 1.844 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil.

2-methoxy-1-methylethyl acetate (108-65-6)	
Surface tension	29.4 mN/m (20 °C, 100 vol %, EU Method A.5: Surface tension)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.602 – 1.079 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil.

Xylene (1330-20-7)	
Surface tension	28.01 – 29.76 mN/m (25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.73 (log Koc, Equivalent or similar to OECD 121, Read-across)
Ecology - soil	Low potential for adsorption in soil. May be harmful to plant growth, blooming and fruit formation.

ethylbenzene (100-41-4)	
Surface tension	71.2 mN/m (23 °C, 0.058 g/l, EU Method A.5: Surface tension)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.71 (log Koc, PCKOCWIN v1.66, QSAR)
Ecology - soil	Low potential for adsorption in soil. Toxic to soil organisms.

12.5. Results of PBT and vPvB assessment

Component	
n-butyl acetate (123-86-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

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Component	
Xylene (1330-20-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
4-methylpentan-2-one; isobutyl methyl ketone (108-10-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
2-methoxy-1-methylethyl acetate (108-65-6)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
ethylbenzene (100-41-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information	: Flammable vapours may accumulate in the container.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number or ID number

UN-No. (ADR)	: UN 1263
UN-No. (IMDG)	: UN 1263
UN-No. (IATA)	: UN 1263
UN-No. (ADN)	: UN 1263
UN-No. (RID)	: UN 1263

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: PAINT
Proper Shipping Name (IMDG)	: PAINT
Proper Shipping Name (IATA)	: Paint
Proper Shipping Name (ADN)	: PAINT
Proper Shipping Name (RID)	: PAINT
Transport document description (ADR)	: UN 1263 PAINT, 3, III, (D/E)
Transport document description (IMDG)	: UN 1263 PAINT, 3, III
Transport document description (IATA)	: UN 1263 Paint, 3, III
Transport document description (ADN)	: UN 1263 PAINT, 3, III
Transport document description (RID)	: UN 1263 PAINT, 3, III

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	: 3
Danger labels (ADR)	: 3
	:



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IMDG

Transport hazard class(es) (IMDG) : 3
Danger labels (IMDG) : 3
:



IATA

Transport hazard class(es) (IATA) : 3
Danger labels (IATA) : 3
:



ADN

Transport hazard class(es) (ADN) : 3
Danger labels (ADN) : 3
:



RID

Transport hazard class(es) (RID) : 3
Danger labels (RID) : 3
:



14.4. Packing group

Packing group (ADR) : III
Packing group (IMDG) : III
Packing group (IATA) : III
Packing group (ADN) : III
Packing group (RID) : III

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR) : F1
Special provisions (ADR) : 163, 367, 650
Limited quantities (ADR) : 5I
Excepted quantities (ADR) : E1
Packing instructions (ADR) : P001, IBC03, LP01, R001
Special packing provisions (ADR) : PP1
Mixed packing provisions (ADR) : MP19
Portable tank and bulk container instructions (ADR) : T2
Portable tank and bulk container special provisions (ADR) : TP1, TP29
Tank code (ADR) : LGBF

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Vehicle for tank carriage : FL
Transport category (ADR) : 3
Special provisions for carriage - Packages (ADR) : V12
Special provisions for carriage - Operation (ADR) : S2
Hazard identification number (Kemler No.) : 30
Orange plates :



Tunnel restriction code (ADR) : D/E
EAC code : •3YE

Transport by sea

Special provisions (IMDG) : 163, 223, 367, 955
Limited quantities (IMDG) : 5 L
Excepted quantities (IMDG) : E1
Packing instructions (IMDG) : P001, LP01
Special packing provisions (IMDG) : PP1
IBC packing instructions (IMDG) : IBC03
Tank instructions (IMDG) : T2
Tank special provisions (IMDG) : TP1, TP29
EmS-No. (Fire) : F-E
EmS-No. (Spillage) : S-E
Stowage category (IMDG) : A
Properties and observations (IMDG) : Miscibility with water depends upon the composition.

Air transport

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y344
PCA limited quantity max net quantity (IATA) : 10L
PCA packing instructions (IATA) : 355
PCA max net quantity (IATA) : 60L
CAO packing instructions (IATA) : 366
CAO max net quantity (IATA) : 220L
Special provisions (IATA) : A3, A72, A192
ERG code (IATA) : 3L

Inland waterway transport

Classification code (ADN) : F1
Special provisions (ADN) : 163, 367, 650
Limited quantities (ADN) : 5 L
Excepted quantities (ADN) : E1
Equipment required (ADN) : PP, EX, A
Ventilation (ADN) : VE01
Number of blue cones/lights (ADN) : 0

Rail transport

Classification code (RID) : F1
Special provisions (RID) : 163, 367, 650
Limited quantities (RID) : 5L
Excepted quantities (RID) : E1
Packing instructions (RID) : P001, IBC03, LP01, R001
Special packing provisions (RID) : PP1
Mixed packing provisions (RID) : MP19
Portable tank and bulk container instructions (RID) : T2
Portable tank and bulk container special provisions (RID) : TP1, TP29
Tank codes for RID tanks (RID) : LGBF
Transport category (RID) : 3
Special provisions for carriage – Packages (RID) : W12
Colis express (express parcels) (RID) : CE4
Hazard identification number (RID) : 30

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14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(a)	SYSTEM 20 BRILLIANT HS CLEARCOAT (2:1) ; isobutyl methyl ketone ; n-butyl acetate ; hydrocarbons, C9, aromatics ; Xylene ; ethylbenzene ; 2-methoxy-1-methylethyl acetate ; reaction mass of ethylbenzene, m-xylene and p-xylene	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F
3(b)	SYSTEM 20 BRILLIANT HS CLEARCOAT (2:1) ; isobutyl methyl ketone ; n-butyl acetate ; hydrocarbons, C9, aromatics ; Xylene ; ethylbenzene ; reaction mass of ethylbenzene, m-xylene and p-xylene ; reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate ; reaction mass of α -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- ω -hydroxypoly(oxyethylene) and α -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- ω -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionylo xypoly(oxyethylene)	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10

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EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(c)	SYSTEM 20 BRILLIANT HS CLEARCOAT (2:1) ; hydrocarbons, C9, aromatics ; reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate ; reaction mass of α -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- ω -hydroxypoly(oxyethylene) and α -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- ω -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl- ω -xypoly(oxyethylene)	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1
40.	SYSTEM 20 BRILLIANT HS CLEARCOAT (2:1) ; isobutyl methyl ketone ; n-butyl acetate ; hydrocarbons, C9, aromatics ; Xylene ; ethylbenzene ; 2-methoxy-1-methylethyl acetate ; reaction mass of ethylbenzene, m-xylene and p-xylene	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
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Abbreviations and acronyms:	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BLV	Biological limit value
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
EN	European Standard
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

Full text of H- and EUH-statements:	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 2	Carcinogenicity, Category 2
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3

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Full text of H- and EUH-statements:	
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1A	Skin sensitisation, category 1A
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis

For professional use only.

The information contained within this Safety Data Sheet (SDS) is believed to be correct as of the date issued however it is subject to change from time to time. It does not purport to be all inclusive or exhaustive and shall only be used as a guide. U-POL makes no warranties, expressed or implied, including but not limited to, any implied warranty of fitness for a given purpose or usage. It is the Buyers responsibility to ensure the suitability of the products for their own use and to check the information is up to date. U-POL cannot be held responsible for the suitability of use for any of its products, considering the wide range of factors such as application, substrates and handling methods. Since these conditions of use are outside of our control, the company shall not be held liable for any damage resulting from handling or from contact with the product detailed. Moreover, addition of reducers, hardeners or other additives over and above U-POL's recommendations for use, may substantially alter the composition and hazards of the product. U-POL data sheets are available via the U-POL website at WWW.U-POL.COM.



DRIVING SURFACE PERFECTION

TIGERSEAL PU ADHESIVE & SEALANT - BLACK

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Product Reference code: according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
SDS Ref. (EU): TIG-B-SDS
Issue date: 03/03/2015 Revision date: 01/11/2022 Supersedes version of: 04/12/2020 Version: 8.1

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

1.1. Product identifier

Product form : Mixture
Trade name : TIGERSEAL PU ADHESIVE & SEALANT - BLACK
UFI : HNH1-70RT-U00H-69PH
Product code : TIG/NB
Product group : Adhesives, sealants

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

1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use, Consumer use
Use of the substance/mixture : Adhesives, sealants
Function or use category : bonding agent

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

U-POL Limited Ltd
Denington Road
GB- NN8 2QH Wellingborough – Northamptonshire
United Kingdom
T +44 (0) 1933 230310
technicalsupport@u-pol.com - www.u-pol.com

Importer

U-POL Netherlands B.V. B.V.
Hoorgoordreef 15
NL- 1101BA Amsterdam
Netherlands
T +31 20 240 2216
technicalsupport@u-pol.com - www.u-pol.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: +44 (0) 870 8200418 (24 hrs)

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	NHS England, Scotland & Wales	-	Call 111 or a Doctor	In Northern Ireland, contact your local GP or pharmacist during normal hours (www.gpoutofhours.hscni.net)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Respiratory sensitisation, Category 1 H334
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS08

Signal word (CLP)

: Danger

Contains

: 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate, 4,4'-methylenediphenyl diisocyanate, oligomers

Hazard statements (CLP)

: H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements (CLP)

: P261 - Avoid breathing vapours, fume.
P264 - Wash hands thoroughly after handling.
P280 - Wear eye protection, protective clothing, protective gloves.
P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
EUH204 - Contains isocyanates. May produce an allergic reaction.
As from 24 August 2023 adequate training is required before industrial or professional use.

EUH-statements

Extra phrases

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component	
Xylene (1330-20-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
ethylbenzene (100-41-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (101-68-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Xylene substance with a Community workplace exposure limit (Note C)	CAS-No.: 1330-20-7 EC-No.: 215-535-7 EC Index-No.: 601-022-00-9 REACH-no: 01-2119488216-32	5 – 10	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304
ethylbenzene substance with a Community workplace exposure limit	CAS-No.: 100-41-4 EC-No.: 202-849-4 EC Index-No.: 601-023-00-4 REACH-no: 01-2119489370-35	1 – 2.5	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 STOT RE 2, H373 Asp. Tox. 1, H304
4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (Note 2)	CAS-No.: 101-68-8 EC-No.: 202-966-0 EC Index-No.: 615-005-00-9 REACH-no: 01-2119457014-47	0.1 – 1	Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373
4,4'-methylenediphenyl diisocyanate, oligomers	CAS-No.: 25686-28-6 EC-No.: 500-040-3 REACH-no: 01-2119457013-49	0.1 – 0.25	Acute Tox. 4 (Inhalation:vapour), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373

Specific concentration limits:

Name	Product identifier	Specific concentration limits
4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	CAS-No.: 101-68-8 EC-No.: 202-966-0 EC Index-No.: 615-005-00-9 REACH-no: 01-2119457014-47	(0.1 ≤C < 100) Resp. Sens. 1, H334 (5 ≤C < 100) Eye Irrit. 2, H319 (5 ≤C < 100) Skin Irrit. 2, H315 (5 ≤C < 100) STOT SE 3, H335

Note 2 : The concentration of isocyanate stated is the percentage by weight of the free monomer calculated with reference to the total weight of the mixture.

Note C : Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.
First-aid measures after skin contact	: Wash skin with plenty of water.

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First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after inhalation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
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4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam.
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5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Toxic fumes may be released.
--	--------------------------------

5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
--------------------------------	--

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: Safety glasses. Protective clothing. Gloves.
Emergency procedures	: Ventilate spillage area. Avoid breathing vapours, fume.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
----------------------	---

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Collect spillage. Contain released product, collect/pump into suitable containers.
Methods for cleaning up	: Mechanically recover the product.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment. Avoid breathing vapours, fume.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in a well-ventilated place. Keep cool.
Storage temperature	: < 25 °C

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Storage area	: Keep out of direct sunlight. Store in a well-ventilated place. Protect against frost. Store in a dry area.
Special rules on packaging	: Store in a closed container. Keep only in original container. dry.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (101-68-8)	
Ireland - Occupational Exposure Limits	
Local name	4,4'-Methylene-diphenyl diisocyanate (as —NCO) [MDI]
OEL TWA [2]	0.005 ppm
Remark	Sens. (In the workplace respiratory or dermal exposures to sensitising agents may occur. Sensitizers may evoke respiratory or dermal reactions, e.g. asthma, rhinitis and allergic contact dermatitis. The notation does not distinguish between respiratory or dermal sensitisation. Chemical agents that are sensitizers present special problems in the workplace. Should an employee become sensitised, subsequent exposure may cause intense responses, even at low exposure concentrations well below the OELV. Exposure should be eliminated or significantly reduced through control measures such as engineering and process controls and use of personal protective equipment (PPE))
Regulatory reference	Chemical Agents Code of Practice 2020
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	0.02 mg/m ³
WEL STEL (OEL STEL)	0.07 mg/m ³
Xylene (1330-20-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Xylene, mixed isomers, pure
IOEL TWA	221 mg/m ³
IOEL TWA [ppm]	50 ppm
IOEL STEL	442 mg/m ³
IOEL STEL [ppm]	100 ppm
Remark	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
Ireland - Occupational Exposure Limits	
Local name	Xylene, mixed isomers
OEL TWA [1]	221 mg/m ³
OEL TWA [2]	50 ppm
OEL STEL	442 mg/m ³
OEL STEL [ppm]	100 ppm
Remark	Sk (Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body), IOELV (Indicative Occupational Exposure Limit Values)

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Xylene (1330-20-7)	
Regulatory reference	Chemical Agents Code of Practice 2020
Ireland - Biological limit values	
Local name	Xylene
BLV	1.5 g/g creatinine Parameter: methylhippuric acids - Medium: urine - Sampling time: End of Shift
Regulatory reference	Biological Monitoring Guidelines (HSA, 2011)
United Kingdom - Occupational Exposure Limits	
Local name	Xylene
WEL TWA (OEL TWA) [1]	220 mg/m ³
WEL TWA (OEL TWA) [2]	50 ppm
WEL STEL (OEL STEL)	441 mg/m ³
WEL STEL (OEL STEL) [ppm]	100 ppm
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
United Kingdom - Biological limit values	
Local name	Xylene, o-, m-, p- or mixed isomers
BMGV	650 mmol/mol Creatinine Parameter: methyl hippuric acid - Medium: urine - Sampling time: Post shift
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
ethylbenzene (100-41-4)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Ethylbenzene
IOEL TWA	442 mg/m ³
IOEL TWA [ppm]	100 ppm
IOEL STEL	884 mg/m ³
IOEL STEL [ppm]	200 ppm
Remark	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
Ireland - Occupational Exposure Limits	
Local name	Ethylbenzene
OEL TWA [1]	442 mg/m ³
OEL TWA [2]	100 ppm
OEL STEL	884 mg/m ³
OEL STEL [ppm]	200 ppm
Remark	Sk (Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body), IOELV (Indicative Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2020

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ethylbenzene (100-41-4)	
Ireland - Biological limit values	
Local name	Ethyl benzene
BLV	0.7 g/g creatinine Parameter: mandelic acid and phenylglyoxylic acid - Medium: urine - Sampling time: End of shift at end of workweek - Notations: Ns (Non-specific), Sq (Semi-quantitative) Parameter: ethylbenzene - Medium: end-exhaled air - Sampling time: Not critical - Notations: Sq (Semi-quantitative)
Regulatory reference	Biological Monitoring Guidelines (HSA, 2011)
United Kingdom - Occupational Exposure Limits	
Local name	Ethylbenzene
WEL TWA (OEL TWA) [1]	441 mg/m ³
WEL TWA (OEL TWA) [2]	100 ppm
WEL STEL (OEL STEL)	552 mg/m ³
WEL STEL (OEL STEL) [ppm]	125 ppm
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Gloves. Protective clothing. Safety glasses.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

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Hand protection:

Protective gloves

Other skin protection

Materials for protective clothing:

Impermeable clothing

8.2.2.3. Respiratory protection

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Black.
Appearance	: Paste.
Odour	: aromatic.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not applicable
Boiling point	: Not available
Flammability	: Non flammable.
Explosive limits	: Not applicable
Lower explosion limit	: 0.1 vol %
Upper explosion limit	: 7.8 vol %
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: Not available
pH solution	: Not available
Viscosity, kinematic	: > 20.5 mm²/s
Solubility	: insoluble in water. Reacts with water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: < 100 hPa @ 20°C
Vapour pressure at 50 °C	: Not available
Density	: 1.23 g/cm³
Relative density	: Not applicable
Relative vapour density at 20 °C	: Not applicable
Particle size	: Not available
Particle size distribution	: Not available
Particle shape	: Not available
Particle aspect ratio	: Not available
Particle aggregation state	: Not available
Particle agglomeration state	: Not available
Particle specific surface area	: Not available
Particle dustiness	: Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

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9.2.2. Other safety characteristics

VOC content : 97.6 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Hydrogen chloride. Nitrogen oxides. Sulphur oxides.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (101-68-8)	
LD50 oral rat	> 2000 mg/kg bodyweight (Rat, Male / female, Read-across, Oral, 14 day(s))
LD50 dermal rabbit	> 9400 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Read-across, Dermal, 14 day(s))
LC50 Inhalation - Rat (Dust/Mist)	1.5 mg/l/4h
4,4'-methylenediphenyl diisocyanate, oligomers (25686-28-6)	
LD50 oral rat	> 5000 mg/kg (OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure), rat, female)
LD50 dermal rabbit	> 9400 mg/kg (OECD Guideline 402 (Acute Dermal Toxicity), rat, male/female)
LC50 Inhalation - Rat (Dust/Mist)	0.368 mg/l/4h (OECD Guideline 403 (Acute Inhalation Toxicity), rat, male, 4h, Inhalation (aerosol))
diisononyl phthalate (28553-12-0)	
LD50 oral rat	> 10000 mg/kg bodyweight Animal: rat
LD50 dermal rabbit	> 3160 mg/kg bodyweight Animal: rabbit, Animal sex: female
LC50 Inhalation - Rat	> 4.4 mg/l air Animal: rat, Guideline: other:43CFR163 (EPA proposed test guideline, 1978)
Xylene (1330-20-7)	
LD50 oral rat	3523 mg/kg bodyweight (Equivalent or similar to EU Method B.1: Acute Toxicity (Oral), Rat, Male, Experimental value, Oral, 14 day(s))

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Xylene (1330-20-7)	
LD50 dermal rat	12126 mg/kg (Non-GLP, read-across from supporting substance, single dermal dose under occlusion followed by observation for 14 days)
LD50 dermal rabbit	12126 mg/kg bodyweight Animal: rabbit, Animal sex: male
LC50 Inhalation - Rat [ppm]	6700 ppm/4h (EU Method B.2 (Acute Toxicity (Inhalation)), 4h, rat, male)
ethylbenzene (100-41-4)	
LD50 oral rat	3500 mg/kg (Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	15432 mg/kg bodyweight (24 h, Rabbit, Male, Experimental value, Dermal)
LC50 Inhalation - Rat	17.8 mg/l (4 h, Rat, Male, Experimental value, Inhalation (vapours))
4-isocyanatosulphonyltoluene; tosyl isocyanate (4083-64-1)	
LD50 oral rat	2330 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 2080 - 2600
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (101-68-8)	
IARC group	3 - Not classifiable
Xylene (1330-20-7)	
IARC group	3 - Not classifiable
ethylbenzene (100-41-4)	
IARC group	2B - Possibly carcinogenic to humans
diisononyl phthalate (28553-12-0)	
NOAEL (chronic, oral, animal/male, 2 years)	88.3 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: EPA OTS 798.3300 (Carcinogenicity), Remarks on results: other:Effect type: toxicity (migrated information)
NOAEL (chronic, oral, animal/female, 2 years)	108.6 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: EPA OTS 798.3300 (Carcinogenicity), Remarks on results: other:Effect type: toxicity (migrated information)
Reproductive toxicity	: Not classified
diisononyl phthalate (28553-12-0)	
NOAEL (animal/female, F1)	200 – 260 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: other:EC Dangerous Substances Directive (67/548/EEC), Annex V, Part B; 1987, Guideline: EPA OTS 798.4700 (Reproduction and Fertility Effects)
STOT-single exposure	: Not classified
4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (101-68-8)	
STOT-single exposure	May cause respiratory irritation.
4,4'-methylenediphenyl diisocyanate, oligomers (25686-28-6)	
STOT-single exposure	May cause respiratory irritation.
Xylene (1330-20-7)	
STOT-single exposure	May cause respiratory irritation.

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4-isocyanatosulphonyltoluene; tosyl isocyanate (4083-64-1)	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified
4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (101-68-8)	
STOT-repeated exposure	May cause damage to organs (lungs) through prolonged or repeated exposure (if inhaled).
4,4'-methylenediphenyl diisocyanate, oligomers (25686-28-6)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
diisononyl phthalate (28553-12-0)	
NOAEL (dermal, rat/rabbit, 90 days)	≈ 500 mg/kg bodyweight Animal: rabbit
Xylene (1330-20-7)	
LOAEL (oral, rat, 90 days)	150 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), Guideline: EPA OPP 82-1 (90-Day Oral Toxicity)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
ethylbenzene (100-41-4)	
NOAEL (oral, rat, 90 days)	75 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
STOT-repeated exposure	May cause damage to organs (hearing sense) through prolonged or repeated exposure.
Aspiration hazard	: Not classified
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Viscosity, kinematic	> 20.5 mm²/s

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (101-68-8)	
LC50 - Fish [1]	> 1000 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Static system, Fresh water, Read-across, Nominal concentration)
EC50 - Crustacea [1]	129.7 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 24 h, Daphnia magna, Static system, Fresh water, Read-across, Locomotor effect)
ErC50 algae	> 1640 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Read-across, GLP)
Xylene (1330-20-7)	
LC50 - Fish [1]	2.6 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	> 3.4 mg/l Test organisms (species): Ceriodaphnia dubia

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Xylene (1330-20-7)	
EC50 72h - Algae [1]	2.2 mg/l
ErC50 algae	4.36 mg/l (OECD 201: Alga, Growth Inhibition Test, 73 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
NOEC chronic fish	> 1.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '56 d'

ethylbenzene (100-41-4)	
LC50 - Fish [1]	5.1 mg/l Test organisms (species): Menidia menidia
EC50 - Crustacea [1]	1.8 – 2.4 mg/l (US EPA, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
EC50 72h - Algae [1]	4.9 mg/l Test organisms (species): Skeletonema costatum
EC50 72h - Algae [2]	5.4 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	7.7 mg/l Test organisms (species): Skeletonema costatum
EC50 96h - Algae [2]	3.6 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
LOEC (chronic)	1.7 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'
NOEC (chronic)	0.96 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'

12.2. Persistence and degradability

4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (101-68-8)	
Persistence and degradability	Not readily biodegradable in water.
Xylene (1330-20-7)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
ethylbenzene (100-41-4)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.44 g O ₂ /g substance
Chemical oxygen demand (COD)	2.1 g O ₂ /g substance
ThOD	3.17 g O ₂ /g substance

12.3. Bioaccumulative potential

4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (101-68-8)	
BCF - Fish [1]	92 – 200 (OECD 305: Bioconcentration: Flow-Through Fish Test, 4 week(s), Cyprinus carpio, Flow-through system, Fresh water, Experimental value, GLP)
Partition coefficient n-octanol/water (Log Pow)	4.51 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 22 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
Xylene (1330-20-7)	
BCF - Fish [1]	7.2 – 25.9 (56 day(s), Oncorhynchus mykiss, Flow-through system, Fresh water, Read-across)
Partition coefficient n-octanol/water (Log Pow)	3.2 (Read-across, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

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ethylbenzene (100-41-4)

BCF - Fish [1]	1 (6 week(s), Oncorhynchus kisutch, Flow-through system, Salt water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	3.6 (Experimental value, EU Method A.8: Partition Coefficient, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (101-68-8)

Surface tension	No data available in the literature
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	4.53 – 5.455 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Adsorbs into the soil.

Xylene (1330-20-7)

Surface tension	28.01 – 29.76 mN/m (25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.73 (log Koc, Equivalent or similar to OECD 121, Read-across)
Ecology - soil	Low potential for adsorption in soil. May be harmful to plant growth, blooming and fruit formation.

ethylbenzene (100-41-4)

Surface tension	71.2 mN/m (23 °C, 0.058 g/l, EU Method A.5: Surface tension)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.71 (log Koc, PCKOCWIN v1.66, QSAR)
Ecology - soil	Low potential for adsorption in soil. Toxic to soil organisms.

12.5. Results of PBT and vPvB assessment

Component

Xylene (1330-20-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
ethylbenzene (100-41-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate (101-68-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

- | | |
|------------------------------|---|
| Regional legislation (waste) | : Disposal must be done according to official regulations. |
| Waste treatment methods | : Dispose of contents/container in accordance with licensed collector's sorting instructions. |

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SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number or ID number

UN-No. (ADR)	: Not regulated
UN-No. (IMDG)	: Not regulated
UN-No. (IATA)	: Not regulated
UN-No. (ADN)	: Not regulated
UN-No. (RID)	: Not regulated

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: Not regulated
Proper Shipping Name (IMDG)	: Not regulated
Proper Shipping Name (IATA)	: Not regulated
Proper Shipping Name (ADN)	: Not regulated
Proper Shipping Name (RID)	: Not regulated

14.3. Transport hazard class(es)

ADR	
Transport hazard class(es) (ADR)	: Not regulated

IMDG	
Transport hazard class(es) (IMDG)	: Not regulated

IATA	
Transport hazard class(es) (IATA)	: Not regulated

ADN	
Transport hazard class(es) (ADN)	: Not regulated

RID	
Transport hazard class(es) (RID)	: Not regulated

14.4. Packing group

Packing group (ADR)	: Not regulated
Packing group (IMDG)	: Not regulated
Packing group (IATA)	: Not regulated
Packing group (ADN)	: Not regulated
Packing group (RID)	: Not regulated

14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

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Rail transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

EU restriction list (REACH Annex XVII)

Reference code	Applicable on	Entry title or description
3(a)	ethylbenzene ; Xylene	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F
3(b)	4,4'-methylenediphenyl diisocyanate, oligomers ; ethylbenzene ; Xylene	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
40.	ethylbenzene ; Xylene	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.
56.	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	Methylenediphenyl diisocyanate (MDI)
56(a)	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	Methylenediphenyl diisocyanate (MDI) isomers: 4,4'-Methylenediphenyl diisocyanate
74.	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	Diisocyanates, $O = C=N-R-N = C=O$, with R an aliphatic or aromatic hydrocarbon unit of unspecified length

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

VOC content : 97.6 g/l

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

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SECTION 16: Other information

Full text of H- and EUH-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 2	Carcinogenicity, Category 2
EUH204	Contains isocyanates. May produce an allergic reaction.
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation

For professional use only.

The information contained within this Safety Data Sheet (SDS) is believed to be correct as of the date issued however it is subject to change from time to time. It does not purport to be all inclusive or exhaustive and shall only be used as a guide. U-POL makes no warranties, expressed or implied, including but not limited to, any implied warranty of fitness for a given purpose or usage. It is the Buyers responsibility to ensure the suitability of the products for their own use and to check the information is up to date. U-POL cannot be held responsible for the suitability of use for any of its products, considering the wide range of factors such as application, substrates and handling methods. Since these conditions of use are outside of our control, the company shall not be held liable for any damage resulting from handling or from contact with the product detailed. Moreover, addition of reducers, hardeners or other additives over and above U-POL's recommendations for use, may substantially alter the composition and hazards of the product. U-POL data sheets are available via the U-POL website at WWW.U-POL.COM.



DRIVING SURFACE PERFECTION

EXTRA MULTI-FUNCTIONAL POLYESTER FILLER FOR DEEP TO MEDIUM REPAIRS

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
SDS Ref. (EU): UPOLE-SDS
Issue date: 23/02/2015 Revision date: 26/06/2023 Supersedes version of: 20/08/2019 Version: 4.0

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

1.1. Product identifier

Product form : Mixture
Trade name : EXTRA MULTI-FUNCTIONAL POLYESTER FILLER FOR DEEP TO MEDIUM REPAIRS
UFI : 7U31-T0WP-600S-MEUW
Product code : UPE/BM, UPE/BL, DIS/E, UPOLE/1, UPOLE/2, UPOLE/4
Product group : Bodyfiller

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

1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use
Use of the substance/mixture : Fillers, putties, plasters, modelling clay
Function or use category : Fillers

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer

U-POL Limited
Denington Road
NN8 2QH Wellingborough - United Kingdom
T +44 (0) 1933 230310
technicalsupport@u-pol.com - www.u-pol.com

Importer

U-POL Netherlands B.V.
Hoorgoordreef 15
1101BA Amsterdam - Netherlands
T +31 20 240 2216
technicalsupport@u-pol.com - www.u-pol.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: +44 (0) 870 8200418 (24 hrs)

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	NHS England, Scotland & Wales	-	Call 111 or a Doctor	In Northern Ireland, contact your local GP or pharmacist during normal hours (www.gpoutofhours.hscni.net)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, Category 2 H315
Serious eye damage/eye irritation, Category 2 H319
Reproductive toxicity, Category 2 H361
Specific target organ toxicity — Repeated exposure, Category 1 H372
Full text of H statements : see section 16

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Adverse physicochemical, human health and environmental effects

Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Causes skin irritation. Causes serious eye irritation.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Contains

: styrene

Hazard statements (CLP)

: H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H361 - Suspected of damaging the unborn child.

H372 - Causes damage to organs (hearing organs) through prolonged or repeated exposure (if inhaled).

Precautionary statements (CLP)

: P260 - Do not breathe vapours, fume.

P264 - Wash hands thoroughly after handling.

P280 - Wear eye protection, protective clothing, protective gloves.

P308+P313 - IF exposed or concerned: Get medical advice/attention.

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

P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

Component	
styrene (100-42-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$] (13463-67-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
styrene (Note D)	(CAS-No.) 100-42-5 (EC-No.) 202-851-5 (EC Index-No.) 601-026-00-0 (REACH-no) 01-2119457861-32	10 – 20	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Inhalation:vapour), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 2, H361d STOT SE 3, H335 STOT RE 1, H372 Asp. Tox. 1, H304 Aquatic Chronic 3, H412
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$]	(CAS-No.) 13463-67-7 (EC-No.) 236-675-5 (EC Index-No.) 022-006-002 (REACH-no) 01-2119489379-17	0.3 – 1	Carc. 2, H351

Note D : Certain substances which are susceptible to spontaneous polymerisation or decomposition are generally placed on the market in a stabilised form. It is in this form that they are listed in Part 3. However, such substances are sometimes placed on the market in a non-stabilised form. In this case, the supplier must state on the label the name of the substance followed by the words 'non-stabilised'.

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: 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.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after skin contact	: Irritation. Repeated exposure may cause skin dryness or cracking.
Symptoms/effects after eye contact	: Eye irritation.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam.
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5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Toxic fumes may be released.
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5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. No open flames. No smoking.

6.1.1. For non-emergency personnel

Protective equipment : Protective clothing. Safety glasses. Gloves.

Emergency procedures : Ventilate spillage area. Do not breathe vapours. Do not breathe vapours, fume. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Avoid breathing vapours. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Contain released product. Collect spillage.

Methods for cleaning up : Mechanically recover the product. This material and its container must be disposed of in a safe way, and as per local legislation. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe vapours, fume. Avoid contact with skin and eyes.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

Storage temperature : < 25 °C

Storage area : Store in well ventilated area.

Special rules on packaging : Keep only in original container.

7.3. Specific end use(s)

No additional information available

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

styrene (100-42-5)	
Ireland - Occupational Exposure Limits	
Local name	Styrene [Phenylethylene, Vinyl benzene]
OEL TWA [1]	85 mg/m ³
OEL TWA [2]	20 ppm
OEL STEL	170 mg/m ³
OEL STEL [ppm]	40 ppm
Regulatory reference	Chemical Agents Code of Practice 2020
Ireland - Biological limit values	
Local name	Propylene Oxide
BLV	3 Parameter: N-(3-hydroxypropyl) valine - Medium: blood haemoglobin
Regulatory reference	Biological Monitoring Guidelines (HSA, 2011)
United Kingdom - Occupational Exposure Limits	
Local name	Styrene
WEL TWA (OEL TWA) [1]	430 mg/m ³
WEL TWA (OEL TWA) [2]	100 ppm
WEL STEL (OEL STEL)	1080 mg/m ³
WEL STEL (OEL STEL) [ppm]	250 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)	
Ireland - Occupational Exposure Limits	
Local name	Titanium dioxide
OEL TWA [1]	10 mg/m ³ total inhalable dust 4 mg/m ³ respirable dust
Regulatory reference	Chemical Agents Code of Practice 2020
United Kingdom - Occupational Exposure Limits	
Local name	Titanium dioxide
WEL TWA (OEL TWA) [1]	10 mg/m ³ 4 mg/m ³
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

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8.1.4. DNEL and PNEC

styrene (100-42-5)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	289 mg/m ³
Acute - local effects, inhalation	306 mg/m ³
Long-term - systemic effects, dermal	406 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	85 mg/m ³
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	174.25 mg/m ³
Acute - local effects, inhalation	182.75 mg/m ³
Long-term - systemic effects, oral	2.1 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	10.2 mg/m ³
Long-term - systemic effects, dermal	343 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.028 mg/l
PNEC aqua (marine water)	0.014 mg/l
PNEC aqua (intermittent, freshwater)	0.04 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.614 mg/kg dwt
PNEC sediment (marine water)	0.307 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.2 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	5 mg/l

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Gloves. Protective clothing. Safety glasses.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:
Safety glasses

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Type	Field of application	Characteristics	Standard
Safety glasses	Dust	clear	

8.2.2.2. Skin protection

Skin and body protection:
Wear suitable protective clothing

Hand protection:					
Protective gloves					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Protective gloves	Nitrile rubber (NBR), Neoprene rubber (HNBR), Polyvinylalcohol (PVA), Viton	6 (> 480 minutes)	0.4		EN 374-3

Other skin protection
Materials for protective clothing:
Impermeable clothing

8.2.2.3. Respiratory protection

Respiratory protection:			
[In case of inadequate ventilation] wear respiratory protection.			
Device	Filter type	Condition	Standard
Breathing apparatus, Gas filters	Type A - High-boiling (>65 °C) organic compounds	Vapour protection	EN 140, EN 136, EN 143, EN 145, EN 149

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Light grey.
Appearance	: Paste.
Odour	: aromatic.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not applicable
Boiling point	: Not available
Flammability	: Non flammable.
Explosive limits	: Not applicable
Lower explosive limit (LEL)	: Not applicable
Upper explosive limit (UEL)	: Not applicable

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Flash point	: 32 °C (does not sustain combustion)
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: Not available
pH solution	: Not available
Viscosity, kinematic	: > 20.5 mm²/s
Solubility	: insoluble in water. soluble in most organic solvents.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: 1.5 (1.48 – 1.52) g/cm³
Relative density	: Not applicable
Relative vapour density at 20 °C	: Not applicable
Particle size	: Not available
Particle size distribution	: Not available
Particle shape	: Not available
Particle aspect ratio	: Not available
Particle aggregation state	: Not available
Particle agglomeration state	: Not available
Particle specific surface area	: Not available
Particle dustiness	: Not available

9.2. Other information

VOC content : 255 g/l

9.2.1. Information with regard to physical hazard classes

Not sustained combustibility : Yes

9.2.2. Other safety characteristics

VOC content : 255 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified

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Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

styrene (100-42-5)	
LD50 oral	> 6000 mg/kg bodyweight Animal: hamster, Syrian, Animal sex: male
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	11.8 mg/l (4 h, Rat, Inconclusive, insufficient data, Inhalation (vapours))

dolomite (16389-88-1)	
LD50 oral rat	> 2000 mg/kg (OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure), rat, female, Experimental value)

talc (14807-96-6)	
LD50 oral rat	> 5000 mg/kg bodyweight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Male, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 2.1 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 15 day(s))

magnesium hydroxide (1309-42-8)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method), Guideline: EPA OPPTS 870.1100 (Acute Oral Toxicity), Guideline: EU Method B.1 tris (Acute Oral Toxicity - Acute Toxic Class Method)
LC50 Inhalation - Rat	> 2.1 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation)), Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity)

isopentane; 2-methylbutane (78-78-4)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Guideline: EU Method B.1 (Acute Toxicity (Oral))
LC50 Inhalation - Rat	> 25.3 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)

barium sulfate (7727-43-7)	
LD50 oral rat	> 5000 mg/kg (OECD 401: Acute Oral Toxicity, Rat, Male, Experimental value, Oral, 14 day(s))

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure), Guideline: EPA OPPTS 870.1100 (Acute Oral Toxicity)
LC50 Inhalation - Rat	> 6.82 mg/l (Other, 4 h, Rat, Male, Experimental value, Inhalation (dust), 14 day(s))

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calcium carbonate (471-34-1)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method), Guideline: EU Method B.1 bis (Acute Oral Toxicity - Fixed Dose Procedure)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))
LC50 Inhalation - Rat	> 3 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation)), Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity)
LC50 Inhalation - Rat (Dust/Mist)	> 3 mg/l/4h (4 h, OECD Guidelines 403 (Acute Toxicity Inhalation), rat, male/female, Experimental value)

silicon dioxide, amorphous (7631-86-9)	
LD50 oral rat	> 10000 mg/kg (Rat, Oral)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit, Dermal)

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

styrene (100-42-5)	
IARC group	2B - Possibly carcinogenic to humans

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)	
IARC group	2B - Possibly carcinogenic to humans

barium sulfate (7727-43-7)	
NOAEL (chronic, oral, animal/male, 2 years)	60 mg/kg bodyweight Animal: rat, Animal sex: male, Remarks on results: other:Effect type: carcinogenicity (migrated information)
NOAEL (chronic, oral, animal/female, 2 years)	75 mg/kg bodyweight Animal: rat, Animal sex: female, Remarks on results: other:Effect type: carcinogenicity (migrated information)

Reproductive toxicity	: Suspected of damaging the unborn child.
STOT-single exposure	: Not classified

styrene (100-42-5)	
STOT-single exposure	May cause respiratory irritation.

isopentane; 2-methylbutane (78-78-4)	
STOT-single exposure	May cause drowsiness or dizziness.

STOT-repeated exposure	: Causes damage to organs (hearing organs) through prolonged or repeated exposure (if inhaled).
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styrene (100-42-5)	
LOAEL (oral, rat, 90 days)	2000 mg/kg bodyweight Animal: rat

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LOAEC (inhalation, rat, vapour, 90 days)	0.21 mg/l air Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight Animal: rat
NOAEL (subchronic, oral, animal/male, 90 days)	10 mg/kg bodyweight Animal: mouse, Animal sex: male
STOT-repeated exposure	Causes damage to organs (hearing sense) through prolonged or repeated exposure (if inhaled).

magnesium hydroxide (1309-42-8)

NOAEL (oral, rat, 90 days)	≥ 1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other:The EPA Health Effects Test Guidelines, OPPTS 870.3650, Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test, July 2000, Guideline: other:Commission Regulation (EC) No 440/2008 Part B:Methods for the Determination of Toxicity and other Health Effects; B.7: "Repeated Dose (28 days) Toxicity (oral)". Official Journal of the European Union No. L142, May 2008, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents), Guideline: other:EPA OPPTS 870.3050(repeated Dose 28-day oral toxicity study in rodents)
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isopentane; 2-methylbutane (78-78-4)

NOAEC (inhalation, rat, vapour, 90 days)	30 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study), Guideline: other: U.S. EPA/FIFRA Guidelines §82-4, Guideline: EPA OTS 798.2450 (90-Day Inhalation Toxicity), Guideline: other:U.S. EPA/TSCA Guidelines 40 CFR §798.6059, and §798.6059, 798.6200, 798.6400, Guideline: other:EU Guideline 87/302/EEC
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calcium carbonate (471-34-1)

NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
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Aspiration hazard : Not classified

EXTRA MULTI-FUNCTIONAL POLYESTER FILLER FOR DEEP TO MEDIUM REPAIRS

Viscosity, kinematic	> 20.5 mm ² /s
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11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

styrene (100-42-5)

LC50 - Fish [1]	10 mg/l Test organisms (species): Pimephales promelas
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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

EC50 - Crustacea [1]	4.7 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	4.9 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	6.3 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
ErC50 algae	4.9 mg/l (EPA OTS 797.1050, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
LOEC (chronic)	2.06 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	1.01 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$] (13463-67-7)

LC50 - Fish [1]	155 mg/l Test organisms (species): other:Japanese Medaka
EC50 - Crustacea [1]	19.3 mg/l Test organisms (species): Daphnia magna
EC50 - Crustacea [2]	27.8 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
ErC50 algae	61 mg/l (EPA 600/9-78-018, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)
NOEC (chronic)	≥ 2.92 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

12.2. Persistence and degradability

styrene (100-42-5)

Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Chemical oxygen demand (COD)	2.8 g O ₂ /g substance
ThOD	3.07 g O ₂ /g substance
BOD (% of ThOD)	0.42 (Literature study)

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$] (13463-67-7)

Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

12.3. Bioaccumulative potential

styrene (100-42-5)

BCF - Fish [1]	35.5 (Carassius auratus, Literature study)
Partition coefficient n-octanol/water (Log Pow)	2.96 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$] (13463-67-7)

Bioaccumulative potential	Not bioaccumulative.
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12.4. Mobility in soil

styrene (100-42-5)

Surface tension	0.032 N/m (20 °C)
Partition coefficient n-octanol/water (Log Koc)	2.55 (log Koc, Estimated value)
Ecology - soil	Low potential for adsorption in soil.

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$] (13463-67-7)

Ecology - soil	Low potential for mobility in soil.
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12.5. Results of PBT and vPvB assessment

Component

styrene (100-42-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$] (13463-67-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number or ID number

UN-No. (ADR)	: Not regulated
UN-No. (IMDG)	: Not regulated
UN-No. (IATA)	: Not regulated
UN-No. (ADN)	: Not regulated
UN-No. (RID)	: Not regulated

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: Not regulated
Proper Shipping Name (IMDG)	: Not regulated
Proper Shipping Name (IATA)	: Not regulated
Proper Shipping Name (ADN)	: Not regulated
Proper Shipping Name (RID)	: Not regulated

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14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not regulated

IMDG

Transport hazard class(es) (IMDG) : Not regulated

IATA

Transport hazard class(es) (IATA) : Not regulated

ADN

Transport hazard class(es) (ADN) : Not regulated

RID

Transport hazard class(es) (RID) : Not regulated

14.4. Packing group

Packing group (ADR) : Not regulated

Packing group (IMDG) : Not regulated

Packing group (IATA) : Not regulated

Packing group (ADN) : Not regulated

Packing group (RID) : Not regulated

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:		
Reference code	Applicable on	Entry title or description
3(a)	styrene	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F

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3(b)	styrene	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
3(c)	styrene	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1
40.	styrene	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

VOC content : 255 g/l

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:			
Section	Changed item	Change	Comments
	Display additional SDS EU addresses	Added	
	Revision date	Modified	
	Supersedes	Modified	
2.1	Adverse physicochemical, human health and environmental effects	Modified	
2.2	Precautionary statements (CLP)	Modified	
6.1	Emergency procedures	Modified	
9.1	Density	Modified	

Full text of H- and EUH-statements:	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 2	Carcinogenicity, Category 2
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2

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Flam. Liq. 3	Flammable liquids, Category 3
Repr. 2	Reproductive toxicity, Category 2
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility or the unborn child.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

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