

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

1.1 Product identifier

Chemical name/ trade name: **Veropal 590-1K4**
 UFI: SE72-MCJK-N93C-5CT5
 Producer: **SYNPO, akciová společnost**
 Address: **Pardubice, 53002, S. K. Neumanna 1316, the Czech Republic**
 Distributor: **SYNPO, akciová společnost**
 Address: **Pardubice, 53002, S. K. Neumanna 1316, the Czech Republic**

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

Intended use: One-component epoxy electro varnish

Uses advised against: The use should be limited to those listed above.

1.3 Details of the supplier of the safety data sheet

Supplier of SDS: SYNPO, akciová společnost
 Address: Pardubice, 53002, S. K. Neumanna 1316, the Czech Republic
 Identification No.: 46504711
 Tel: +420 466 067 111
 www: www.synpo.cz
 Responsible person for this SDS: SYNPO, akciová společnost

1.4 Emergency telephone number

National Poisons Information Service (NPIS), Royal Infirmary of Edinburgh, Edinburgh EH16 4SA, United Kingdom, Tel.: +44 121 507 4123, 844 892 0111

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Chronic (long term) aquatic hazard, category 2, **H411** Toxic to aquatic life with long lasting effects.
 Reproductive toxicity, category 2, **H361** Suspected of damaging fertility or the unborn child.
 Skin sensitisation, category 1, **H317** May cause an allergic skin reaction.

2.2 Label elements

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

Hazard pictogram(s):



Signal word(s): WARNING

UFI: SE72-MCJK-N93C-5CT5

Contain: 2-(2-[[2-(oxiran-2-ylmethoxy)phenyl]methyl]phenoxy)methyl]oxirane, Trichloro(N,N-dimethyloctylamine)boron, Xylene, Ethylbenzene

Hazard statement(s):

H317 May cause an allergic skin reaction.
H361 Suspected of damaging fertility or the unborn child.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statement(s):

- P261** Avoid breathing vapours/spray.
P264 Wash hands and affected parts of the body thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves / protective clothing / eye protection.
P302/352 IF ON SKIN: Wash with plenty of water.
P308/313 IF exposed or concerned: Get medical advice/attention.
P362/364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.
P405 Store locked up.
P501 Dispose of contents, container to a collection point or waste disposal company.

Supplemental information: None.

2.3 Other hazards

This product does not contain any substances which are classified as PBT or vPvB in a concentration of 0.1 % by weight or higher.
This product does not contain SVHC in a concentration of 0.1 % by weight or higher.
This product does not contain endocrine disruptors in a concentration of 0.1 % by weight or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Name of the component	Content (weight %)	CAS EINECS Index N° Reg. Number	Classification according to Regulation (EC) No. 1272/2008 (CLP)	
2-(2-{{2-(oxiran-2-ylmethoxy)phenyl)methyl}phenoxy)methyl)oxirane	91-96	9003-36-5 701-263-0 01-2119454392-40-XXXX	Aquatic Chronic 3 Skin Sens. 1	H412 H317
Trichloro(N,N-dimethyloctylamine)boron	3,5-4	34762-90-8 252-200-4 01-2120087201-65-XXXX	Aquatic Acute 1 <i>M-factor: 1</i> Aquatic Chronic 1 <i>M-factor: 1</i> Repr. 2 Skin Sens. 1B	H400 H410 H361 H317
Xylene *	0,01-0,08	1330-20-7 215-535-7 601-022-00-9 01-2119488216-32-0019	Acute Tox. 4 Flam. Liq. 3 Skin Irrit. 2	H312/332 H226 H315
Ethylbenzene *	0,01-0,03	100-41-4 202-849-4 601-023-00-4 01-2119489370-35-XXXX	Acute Tox. 4 Aquatic Chronic 3 Asp. Tox. 1 Flam. Liq. 2 STOT RE 2	H332 H412 H304 H225 H373

* Substance with a Community workplace exposure limit.

For full text of H-statements see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

4.1.1 General advice:

Take care of your own safety. If you have any health problems or if you are in doubt, tell your doctor and provide him with the information from this safety data sheet or label. Immediately remove any clothing soiled by the product. In life-threatening conditions, first resuscitate the victim and seek medical attention. If breathing has stopped, give artificial respiration immediately. If the heart stops, perform an indirect heart massage immediately. If unconscious, place in recovery position on side, with head tilted slightly and keep airways clear. Never induce vomiting if the victim vomits himself, take care not to inhale vomit.

- 4.1.2 **Inhalation:**
Interrupt exposure. Escort to fresh air, keep calm and warm. Get medical attention especially if coughing, shortness of breath or other symptoms persist.
- 4.1.3 **Skin contact:**
Take off contaminated clothing. Wash the affected area with as much lukewarm water as possible. If there is no skin injury, it is advisable to use soap, soap solution or shampoo. Get medical attention if skin irritation persists.
- 4.1.4 **Eye contact:**
Immediately flush eyes with running water, keep eyelids open (even forcibly). If the affected person has contact lenses, remove them immediately. Rinse for 10-30 minutes from the inner corner to the outer one so that the other eye is not affected. Get medical attention if possible.
- 4.1.5 **Ingestion:**
DO NOT INDUCE VOMITING! Rinse mouth with water. Never give anything by mouth to an unconscious or convulsive person. If vomiting occurs spontaneously, ensure airway patency. Get medical attention.
- 4.1.6 **Protection of first aiders:**
When providing first aid, it is essential to ensure both the rescue and the rescued safety.
- 4.2 Most important symptoms and effects, both acute and delayed**
Inhalation: Not expected. In contact with the skin: May cause an allergic skin reaction. Irritating to the skin. In contact with the eye: Can cause eye irritation. Ingestion: Irritation, nausea.
Suspected of damaging fertility or the unborn child.
- 4.3 Indication of any immediate medical attention and special treatment needed**
Symptomatic treatment.

SECTION 5: Firefighting measures

- 5.1 Extinguishing media**
Suitable extinguishing media: Alcohol resistant foam, extinguishing powder, CO₂, water mist.
Unsuitable extinguishing media: Direct water flow - could cause fire to spread.
- 5.2 Special hazards arising from the substance or mixture**
Combustion products and hazardous gases: smoke, carbon monoxide, carbon dioxide, other toxic gases. Inhalation of hazardous decomposition (pyrolysis) products can cause serious damage to health.
- 5.3 Advice for firefighters**
Emergency units exposed to smoke or vapors must be equipped with respiratory and eye protection. Self-contained breathing apparatus must be used when working in confined spaces. Cool containers exposed to fire with water spray. Collect fire-fighting water separately and prevent it from entering water and soil. Chemical protective clothing.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures**
Wear suitable protective clothing, replace contaminated clothing. Avoid contact with skin and eyes, contamination of clothing and footwear. Ensure ventilation of the affected area. Keep all persons not involved in rescue operations to a safe distance.
- 6.2 Environmental precautions**
Prevent release to the environment, prevent penetration into surface waters and sewers, subsoil and soil. In the event of a leak into a sewer or watercourse, immediately inform its administrator, police, fire brigade, or the environmental department of the Regional Office.
- 6.3 Methods and material for containment and cleaning up**
In the event of a leak, locate and, if possible, drain / mechanically remove the product. Residues or small amounts should be soaked up in a suitable sorbent (universal sorbent, diatomaceous earth, soil, sand) and placed in suitable marked, well-closed containers and disposed of in accordance with applicable regulations. Inform firefighters and other competent authorities if large quantities of product leak. After removing the product, wash the contaminated area with plenty of water. Do not use solvents.
- 6.4 Reference to other sections**
See section 7, 8 a 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes, prevent the formation of gases and vapors in concentrations exceeding the maximum permissible concentrations for the working atmosphere. Use suitable PPE. Use only in well-ventilated areas with fresh air supply or with adequate ventilation. Do not eat, drink or smoke while working. Wash your hands after work. Observe legal regulations on occupational safety and health. Avoid release to the environment. Ensure the availability of an eye shower.

7.2 Conditions for safe storage, including any incompatibilities

Store in tightly closed, best original containers in dry, cool and well-ventilated places. Store upright to prevent leaks and drips. Keep away from food, feedstuffs and medicines. Store locked up. Do not store together with substances that release flammable gases on contact with water.

Storage temperature: 5-25 °C

Storage class: 12 - Non-flammable liquids in non-flammable packages

7.3 Specific end use(s)

See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Exposure limits: According to national legislation of target country.

Substance	CAS	Permissible exposure limits (mg/m ³)	Maximum permissible concentration (mg/m ³)	Note
Ethylbenzene	100-41-4	200	500	
Xylene	1330-20-7	220	441	Sen - the substance has a sensitizing effect BMGV-Biological monitoring guidance values

Substances with Community Exposure Limits:

Substance	CAS	Limit values (mg/m ³)		Note
		OEL	STEL	
Ethylbenzene	100-41-4	442	884	Dermal
Xylene, mixed isomers, pure	1330-20-7	221	442	Dermal

DNEL

2-{2-[2-(oxiran-2-ylmethoxy)phenyl]methyl}phenoxyethyl)oxirane (CAS: 9003-36-5)

Exposed group and route of exposure	Duration of exposure	Type of effect	Unit	Value
Workers				
Inhalation	Long-term (chronic)	systemic	mg/m ³	12.3
Dermal	Long-term (chronic)	systemic	mg/kg bw/d	1.75
Consumers				

Trichloro(N,N-dimethyloctylamine)boron (CAS: 34762-90-8)

Exposed group and route of exposure	Duration of exposure	Type of effect	Unit	Value
Workers				
Inhalation	Long-term (chronic)	systemic	mg/m ³	3.5
Dermal	Long-term (chronic)	systemic	mg/kg bw/d	1
Consumers				

Xylene (CAS: 1330-20-7)

Exposed group and route of exposure	Duration of exposure	Type of effect	Unit	Value
Workers				
Inhalation	Long-term (chronic)	systemic	mg/m ³	221
		local	mg/m ³	221
Dermal	Long-term (chronic)	systemic	mg/kg bw/d	212
Consumers				
Inhalation	Long-term (chronic)	systemic	mg/m ³	65.3
		local	mg/m ³	65.3
Dermal	Long-term (chronic)	systemic	mg/kg bw/d	125
Oral	Long-term (chronic)	systemic	mg/kg bw/d	5

Ethylbenzene (CAS: 100-41-4)

Exposed group and route of exposure	Duration of exposure	Type of effect	Unit	Value
Workers				
Inhalation	Long-term (chronic)	systemic	mg/m ³	77
		local	mg/m ³	293
Dermal	Long-term (chronic)	systemic	mg/kg bw/d	180
Consumers				
Inhalation	Long-term (chronic)	systemic	mg/m ³	15
Oral	Long-term (chronic)	systemic	mg/kg bw/d	1.6

PNEC

2-[2-{{2-(oxiran-2-ylmethoxy)phenyl)methyl}phenoxy)methyl]oxirane (CAS: 9003-36-5)

Component of the environment	PNEC	Unit	Value	
Water environment	Freshwater	PNEC _{water, fresh.}	mg/L	0.017
	Freshwater, occasional leakage	PNEC _{water, fresh.}	mg/L	0.17
	Freshwater sediment	PNEC _{sed., fresh.}	mg/kg sediment dw	0.036
	Seawater	PNEC _{water, mar.}	mg/L	0.002
	Marine sediment	PNEC _{sed., mar.}	mg/kg sediment dw	0.004
Microbiological activity	Wastewater treatment plant	PNEC _{sew. treat.}	mg/L	100
Terrestrial environment / organisms	Soil	PNEC _{soil}	mg/kg soil dw	0.02

Trichloro(N,N-dimethyloctylamine)boron (CAS: 34762-90-8)

Component of the environment	PNEC	Unit	Value	
Water environment	Freshwater	PNEC _{water, fresh.}	mg/L	0
	Freshwater, occasional leakage	PNEC _{water, fresh.}	mg/L	0.001
	Freshwater sediment	PNEC _{sed., fresh.}	mg/kg sediment dw	0.043
	Seawater	PNEC _{water, mar.}	mg/L	0
	Marine sediment	PNEC _{sed., mar.}	mg/kg sediment dw	0.004

Microbiological activity	Wastewater treatment plant	PNEC _{sew. treat.}	mg/L	100
Terrestrial environment / organisms	Soil	PNEC _{soil}	mg/kg soil dw	0.009

Xylene (CAS: 1330-20-7)

Component of the environment	PNEC	Unit	Value	
Water environment	Freshwater	PNEC _{water, fresh.}	mg/L	0.044
	Freshwater, occasional leakage	PNEC _{water, fresh.}	mg/L	0.01
	Freshwater sediment	PNEC _{sed., fresh.}	mg/kg sediment dw	2.52
	Seawater	PNEC _{water, mar.}	mg/L	0.004
	Marine sediment	PNEC _{sed., mar.}	mg/kg sediment dw	0.252
Microbiological activity	Wastewater treatment plant	PNEC _{sew. treat.}	mg/L	1.6
Terrestrial environment / organisms	Soil	PNEC _{soil}	mg/kg soil dw	0.852

Ethylbenzene (CAS: 100-41-4)

Component of the environment	PNEC	Unit	Value	
Water environment	Freshwater	PNEC _{water, fresh.}	mg/L	0.1
	Freshwater, occasional leakage	PNEC _{water, fresh.}	mg/L	0.1
	Freshwater sediment	PNEC _{sed., fresh.}	mg/kg sediment dw	13.7
	Seawater	PNEC _{water, mar.}	mg/L	0.01
	Marine sediment	PNEC _{sed., mar.}	mg/kg sediment dw	1.37
Microbiological activity	Wastewater treatment plant	PNEC _{sew. treat.}	mg/L	9.6
Terrestrial environment / organisms	Soil	PNEC _{soil}	mg/kg soil dw	2.68
Food chain	Predators	PNEC _{oral.}	mg/kg food	20

8.2 Exposure controls

8.2.1 Technical measures

Technical measures and appropriate working procedures take precedence over personal protective equipment. Follow normal hygiene principles. Do not eat, drink or smoke while working. Wash hands with warm water and soap before and after work. Ensure good ventilation of work areas (local exhaust / efficient general ventilation) and availability of eye shower.

8.2.2 Individual protection measures

Respiratory protection:

In case of exceeding the exposure limits, when creating mist, aerosol, use a mask with a suitable filter (type A/AP - ČSN EN 14387 - anti-gas and combined filters).

Hand protection:

Protective work gloves (ČSN EN 374). Follow the manufacturer's exact instructions, including time of use. Replace damaged gloves. Follow the glove manufacturer's recommendations when selecting the appropriate thickness, material and permeability.

Eye / face protection:

Safety glasses with side-shields or face shield (ČSN EN 166).

Skin protection:

Working clothes (EN ISO 13688) and footwear (EN ISO 20347). Protective clothing against liquid chemicals (EN 14605+A1). Protective clothing against chemicals (EN ISO 14325).

8.2.3 Thermal hazards:

No data available.

8.2.4 Environmental exposure controls:

Avoid unnecessary releases into the environment.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Property	Value	Method	Note
Physical state:	Liquid		
Colour:	Colourless, Yellow		
Odour:	Characteristic.		
Odour threshold:	No data available.		
pH :	No data available.		
Melting point / freezing point (°C):	No data available.		
Boiling point or initial boiling point and boiling range (°C):	No data available.		
Flash point (°C):	>93		
Evaporation rate:	No data available.		
Flammability (gases, liquids and solids):	No data available.		
Lower and upper explosion limit:	No data available.		
Vapour pressure (20 °C):	No data available.		
Vapour pressure (50 °C):	No data available.		
Relative vapour density:	No data available.		
Density and/or relative density (g/cm ³ , 20 °C):	1.1 - 1.2		
Solubility (20 °C):	No data available.		
Partition coefficient n-octanol/water (log value):	See Section 12.		
Auto-ignition temperature:	>460		
Decomposition temperature:	No data available.		
Kinematic viscosity (40 °C):	No data available.		
Refractive index (20 °C):	No data available.		
Oxidising properties:	No data available.		
Explosive properties:	No data available.		
Particle characteristics:	No data available.		

9.2 Other information

VOC (%):	No data available.
Dry matter content:	No data available.
Additional information:	No data available.

9.2.1 Information with regard to physical hazard classes

The product has no physical hazards.

9.2.2 Other safety characteristics

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Not intended under the correct conditions of use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Do not store together with substances that release flammable gases in contact with water.

10.4 Conditions to avoid

Observe handling and storage conditions set out in section 7. Protect from flames, sparks, overheating, sunlight and frost.

10.5 Incompatible materials

Strong oxidizing agents, strong acids, strong bases.

10.6 Hazardous decomposition products

They are not formed under the intended use. Hazardous products such as carbon monoxide and carbon dioxide are formed at high temperatures and in case of fire.

SECTION 11: Toxicological information

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

Individual components

2-(2-([2-(oxiran-2-ylmethoxy)phenyl]methyl)phenoxy)methyl)oxirane (CAS: 9003-36-5)

Acute toxicity

Test type	Results	Exposure	Tested organisms
OECD 401, key study	2 026 mg/kg bw, LD50	oral: gavage	rat
OECD 402, key study	> 2 000 mg/kg bw, LD50	dermal	rat

Serious eye damage / irritation

Test type	Results	Exposure	Tested organisms
OECD 405, key study	not irritating	Eye	rabbit

Skin corrosion / irritation

Test type	Results	Exposure	Tested organisms
OECD 404, key study	not irritating	Skin	rabbit

Respiratory or skin sensitisation

Test type	Results	Exposure	Tested organisms
OECD 406, key study	sensitising	Skin	guinea pig

STOT - single exposure

Test type	Results	Exposure	Tested organisms
	No data available.		

STOT - repeated exposure

Test type	Results	Exposure	Tested organisms
OECD 408, key study	350 mg/kg bw/day (nominal), NOAEL 10 mg/kg bw/day (nominal), NOEL 100 mg/kg bw/day (nominal)	oral	rat

Carcinogenicity

Test type	Results	Exposure	Tested organisms
	No data available.		

Germ cell mutagenicity

Test type	Results	Exposure	Tested organisms
OECD 474, key study	negative	oral: gavage	mouse

Reproductive toxicity

Test type	Results	Exposure	Tested organisms
key study	175 mg/kg bw/day (nominal), NOAEL 350 mg/kg bw/day (nominal), NOAEL	oral: gavage	rat

Aspiration hazard

Test type	Results	Exposure	Tested organisms

	No data available.		
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Trichloro(N,N-dimethyloctylamine)boron (CAS: 34762-90-8)

Acute toxicity

Test type	Results	Exposure	Tested organisms
OECD 401, key study	> 5 000 mg/kg bw, LD50	oral: gavage	rat
OECD 402, key study	> 2.5 mL/kg bw, LD50	dermal	rat

Serious eye damage / irritation

Test type	Results	Exposure	Tested organisms
OECD 405, key study	not irritating	Eye	rabbit

Skin corrosion / irritation

Test type	Results	Exposure	Tested organisms
OECD 404, key study	not irritating	Skin	rabbit

Respiratory or skin sensitisation

Test type	Results	Exposure	Tested organisms
OECD 429, key study	sensitising	Skin	mouse

STOT - single exposure

Test type	Results	Exposure	Tested organisms
	No data available.		

STOT - repeated exposure

Test type	Results	Exposure	Tested organisms
OECD 422, key study	1 000 mg/kg bw/day (actual dose received), NOAEL 300 mg/kg bw/day (actual dose received), NOEL	oral	rat

Carcinogenicity

Test type	Results	Exposure	Tested organisms
	No data available.		

Germ cell mutagenicity

Test type	Results	Exposure	Tested organisms
	No data available.		

Reproductive toxicity

Test type	Results	Exposure	Tested organisms
OECD 422, key study	1 000 mg/kg bw/day (actual dose received), NOAEL 300 mg/kg bw/day (actual dose received), NOEL	oral: gavage	rat

Aspiration hazard

Test type	Results	Exposure	Tested organisms

	No data available.		
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Xylene (CAS: 1330-20-7)

Acute toxicity

Test type	Results	Exposure	Tested organisms
key study	3 523 mg/kg bw, LD50 > 4 000 mg/kg bw, LD50	oral: gavage	rat
key study	12 126 mg/kg bw, LD50	dermal	rabbit
key study	100 ppm, STEL (15 min)	inhalation: vapour	human

Serious eye damage / irritation

Test type	Results	Exposure	Tested organisms
key study	other: N/A	Eye	other: human

Skin corrosion / irritation

Test type	Results	Exposure	Tested organisms
key study	other: moderately irritating; not corrosive	Skin	rabbit

Respiratory or skin sensitisation

Test type	Results	Exposure	Tested organisms
OECD 429, weight of evidence	GHS criteria not met	Skin	mouse

STOT - single exposure

Test type	Results	Exposure	Tested organisms
	No data available.		

STOT - repeated exposure

Test type	Results	Exposure	Tested organisms
OECD 408, key study	300 mg/kg bw/day (nominal), NOAEL 100 mg/kg bw/day (nominal), NOAEL 300 mg/kg bw/day (nominal)	oral	rat
key study	50 ppm (nominal), other:	inhalation	other: human

Carcinogenicity

Test type	Results	Exposure	Tested organisms
key study	> 1 000 mg/kg bw/day (nominal), NOAEL	oral: gavage	mouse
OECD 451, supporting study	< 75 ppm, NOAEC	inhalation: vapour	mouse

Germ cell mutagenicity

Test type	Results	Exposure	Tested organisms
OECD 474, key study	negative	intraperitoneal	mouse

Reproductive toxicity

Test type	Results	Exposure	Tested organisms
key study	>= 500 ppm, NOAEC	inhalation: vapour	rat

Aspiration hazard

Test type	Results	Exposure	Tested organisms
	No data available.		

Ethylbenzene (CAS: 100-41-4)

Acute toxicity

Test type	Results	Exposure	Tested organisms
key study	ca. 3 500 mg/kg bw, LD50	oral: gavage	rat
key study	ca. 17.8 mL/kg bw, LD50	dermal	rabbit
key study	1 432 ppm, RD50	inhalation	mouse

Serious eye damage / irritation

Test type	Results	Exposure	Tested organisms
key study	slightly irritating	Eye	rabbit

Skin corrosion / irritation

Test type	Results	Exposure	Tested organisms
key study	moderately irritating	Skin	rabbit

Respiratory or skin sensitisation

Test type	Results	Exposure	Tested organisms
	No data available.		

STOT - single exposure

Test type	Results	Exposure	Tested organisms
	No data available.		

STOT - repeated exposure

Test type	Results	Exposure	Tested organisms
OECD 407, key study	75 mg/kg bw/day (nominal), NOAEL	oral	rat
OECD 453, key study	250 ppm, NOAEC 75 ppm, LOAEC	inhalation	rat

Carcinogenicity

Test type	Results	Exposure	Tested organisms
OECD 453, key study	250 ppm, NOAEC <= 75 ppm, LOAEC 250 ppm, NOAEC	inhalation: vapour	rat

Germ cell mutagenicity

Test type	Results	Exposure	Tested organisms
OECD 474, key study	negative	oral: gavage	mouse

OECD 486, key study	negative	inhalation	mouse
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Reproductive toxicity

Test type	Results	Exposure	Tested organisms
key study	750 ppm, NOAEL	inhalation	mouse

Aspiration hazard

Test type	Results	Exposure	Tested organisms
	No data available.		

mixture

Acute toxicity:	The product does not meet the criteria for classification.
Serious eye damage / irritation:	The product does not meet the criteria for classification.
Skin corrosion / irritation:	The product does not meet the criteria for classification.
Respiratory or skin sensitisation:	May cause an allergic skin reaction.
STOT - single exposure:	The product does not meet the criteria for classification.
STOT - repeated exposure:	The product does not meet the criteria for classification.
Carcinogenicity:	The product does not meet the criteria for classification.
Germ cell mutagenicity:	The product does not meet the criteria for classification.
Reproductive toxicity:	Suspected of damaging fertility or the unborn child .
Aspiration hazard:	The product does not meet the criteria for classification.

11.2 Information on other hazards

Endocrine disrupting properties

This product does not contain endocrine disruptors in a concentration of 0.1 % by weight or higher.

Other information

No data available.

SECTION 12: Ecological information

12.1 Toxicity

Toxic to aquatic life with long lasting effects.

2-(2-[[2-(oxiran-2-ylmethoxy)phenyl]methyl]phenoxy)methyl)oxirane (CAS: 9003-36-5)

Toxicity	Tested organisms	Results	Test type
Acute toxicity to fish	<i>Pimephales promelas</i>	17 mg/L, LC50 / 96 h 7 mg/L, NOEC / 96 h 12 mg/L, LC0 / 96 h	OECD 203
Acute toxicity to invertebrates	<i>Daphnia magna</i>	71.6 mg/L, LC50 / 48 h 36 mg/L, NOEC / 48 h	OECD 202
Acute toxicity to aquatic algae	<i>Pseudokirchneriella subcapitata</i> (previous names: <i>Raphidocelis subcapitata</i> , <i>Selenastrum capricornutum</i>)	> 56 mg/L, EC50 / 72 h 18 mg/L, EC50 / 72 h	OECD 201

Trichloro(N,N-dimethyloctylamine)boron (CAS: 34762-90-8)

Toxicity	Tested organisms	Results	Test type
Acute toxicity to fish	<i>Cyprinus carpio</i>	> 100 mg/L, LC50 / 96 h	OECD 203
Acute toxicity to invertebrates	<i>Daphnia magna</i>	> 0.75 mg/L, EC50 / 48 h 0.22 mg/L, NOEC / 48 h 0.4 mg/L, LOEC / 48 h	OECD 202

Acute toxicity to aquatic algae	<i>Pseudokirchneriella subcapitata</i> <i>(previous names: Raphidocelis subcapitata, Selenastrum capricornutum)</i>	0.13 mg/L, EC50 / 72 h 0.068 mg/L, EC50 / 72 h	OECD 201
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Xylene (CAS: 1330-20-7)

Toxicity	Tested organisms	Results	Test type
Acute toxicity to fish	<i>Oncorhynchus mykiss</i> (previous name: <i>Salmo gairdneri</i>)	5.549 mg/L, LL50 / 72 h	
Acute toxicity to invertebrates	<i>Daphnia magna</i>	2.2 mg/L, IC50 / 24 h	OECD 202
Acute toxicity to aquatic algae	<i>Raphidocelis subcapitata</i> <i>(previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)</i>	4.36 mg/L, EC50 / 73 h (growth rate) 2.2 mg/L, EC50 / 73 h (biomass)	OECD 201

Ethylbenzene (CAS: 100-41-4)

Toxicity	Tested organisms	Results	Test type
Acute toxicity to fish	<i>Menidia menidia</i>	7 mg/L, LC50 / 24 h 6.4 mg/L, LC50 / 48 h 5.8 mg/L, LC50 / 72 h 5.1 mg/L, LC50 / 96 h 3.3 mg/L, NOEC / 96 h	
Acute toxicity to invertebrates	other aquatic crustacea:	3.2 mg/L, LC50 / 48 h 3.6 mg/L, LC50 / 7 d 3.3 mg/L, IC50 / 7 d 1 mg/L, other: / 7 d 1.7 mg/L, other: / 7 d	
Acute toxicity to aquatic algae	<i>Skeletonema costatum</i>	8 mg/L, EC50 / 24 h 7.5 mg/L, EC50 / 48 h 4.9 mg/L, EC50 / 72 h 7.7 mg/L, EC50 / 96 h	

12.2 Persistence and degradability

2-(2-[[2-(oxiran-2-ylmethoxy)phenyl]methyl]phenoxy)methyl)oxirane (CAS: 9003-36-5)

Biological degradability:	Degradation:	ca. 0 %
	Exposure:	28 days
	Method:	EU Method C.4-E
	Conclusion:	No biodegradation was observed.

Trichloro(N,N-dimethyloctylamine)boron (CAS: 34762-90-8)

Naturally biodegradable (100 %)

Xylene (CAS: 1330-20-7)

Biodegradability:	Degradation:	94 %
	Time of exposure:	28 days
	Method:	OECD 301 F
	Conclusion:	The substance is easily biodegradable.

Ethylbenzene (CAS: 100-41-4)

Biological degradability:	Degradation:	79 %
	Exposure:	10 days
	Method:	OECD 301 B
	Conclusion:	The substance is easily biodegradable.

12.3 Bioaccumulative potential

2-(2-[[2-(oxiran-2-ylmethoxy)phenyl]methyl]phenoxy)methyl)oxirane (CAS: 9003-36-5)

Partition coefficient n-octanol/water:	log Pow:	3.6
	Method:	OECD 117
	Conclusion:	Moderate potential for bioaccumulation.
Bioaccumulation:	BCF:	150 L/kg
	Method:	QSAR calculation model by Bintein BPF DGE

Trichloro(N,N-dimethyloctylamine)boron (CAS: 34762-90-8)

Partition coefficient n-octanol/water:	log Pow:	5.77 (25 °C)
	Conclusion:	Moderate potential for bioaccumulation.
Bioaccumulation:	BCF:	10 L/kg
	Method:	BCFBAF v.3.02 program (EPI Suite™ v4.11)

Xylene (CAS: 1330-20-7)

Partition coefficient: n-octanol/water:	log Pow:	3.16 (20 °C)
	pH:	7
	Method:	Handbook Hansch (1995)
	Conclusion:	Moderate potential for bioaccumulation.
Bioaccumulation:	BCF:	29.5
	Method:	Exposure of fish in artificial streams for 56 days.

Ethylbenzene (CAS: 100-41-4)

Partition coefficient n-octanol/water:	log Pow:	3.03 - 3.60 (20 °C)
	Conclusion:	Moderate potential for bioaccumulation.
Bioaccumulation:	BCF:	110 L/kg

12.4 Mobility in soil

2-(2-[[2-(oxiran-2-ylmethoxy)phenyl]methyl]phenoxy)methyl)oxirane (CAS: 9003-36-5)

Adsorption coefficient:	Log Koc:	3.65
	Conclusion:	Low adsorption in soil.

Trichloro(N,N-dimethyloctylamine)boron (CAS: 34762-90-8)

Adsorption coefficient:	Log Koc:	5.23
	Method:	Log Kow method
	Conclusion:	Potential of adsorption in soil.

Xylene (CAS: 1330-20-7), reaction mass of ethylbenzene and xylene (EINECS: 905-588-0)

Adsorption coefficient:	Log Koc:	2.73
	Method:	OECD 121

Ethylbenzene (CAS: 100-41-4)

Adsorption coefficient:	Log Koc:	3.12
	Method:	EPI-Suite v4.11: KOCWIN (v2.00)
	Conclusion:	Low adsorption in soil.

12.5 Results of PBT and vPvB assessment

This product does not contain any substances which are classified as PBT or vPvB in a concentration of 0.1 % by weight or higher.

12.6 Endocrine disrupting properties

This product does not contain endocrine disruptors in a concentration of 0.1 % by weight or higher.

12.7 Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

13.1.1 Catalogue No. of substance/mixture waste:

08 01 11 Waste paint and varnish containing organic solvents or other dangerous substances

13.1.2 Catalog No. of packaging waste:

15 01 10 Packaging containing residues of or contaminated by dangerous substances

13.1.3 Recommended procedure for substance/mixture waste disposal:

Danger of environmental contamination, follow the applicable waste legislation. Store unused product, contaminated packaging and contaminated disposable equipment (soaked fabric) in marked waste collection containers and hand over for disposal to an authorized waste disposal person (specialized company) who is authorized to do so. Do not empty unused product into drains. It must not be disposed of with municipal waste.

13.1.4 Recommended procedure for packaging disposal:

Empty packaging and disposable aids (pieces of fabric soaked in the product) must be disposed of by the waste producer in accordance with the applicable waste legislation. After thorough cleaning, the packaging can be used as a secondary raw material for the same purpose. Recommended method of disposal of recycling, incineration in a hazardous waste incinerator or disposal in a hazardous waste landfill.

13.1.5 Physical / chemical properties that may affect waste treatment method:

No data available.



13.1.6 Sewage disposal-relevant information:

Protect against weathering. Prevent leakage of waste into the water / soil / sewage system. In case of leakage, inform the competent authorities.

13.1.7 Other disposal recommendations:

Dispose of in accordance with applicable legislation.

SECTION 14: Transport information

	Type of transport	Land transport ADR / RID	Sea transport IMDG	Air Transport ICAO / IATA
14.1	UN number or ID number	3082	3082	3082
14.2	UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Trichloro(N,N-dimethyloctylamine)boron, Ethylbenzene)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Trichloro(N,N-dimethyloctylamine)boron, Ethylbenzene)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Trichloro(N,N-dimethyloctylamine)boron, Ethylbenzene)
14.3	Transport hazard class(es)	9	9	9
	Classification code	90	-	-
	EmS	-	F-A, S-F	-
	Packaging instructions	P001 / IBC03 / LP01 / R001	P001;LP01 / IBC03 (IBC)	(passanger/cargo) 964 / 964
	Labels	9		
	 			
14.4	Packing group	III	III	III

14.5 Environmental hazards

No data available.

IMDG:

Marine Pollutant

14.6 Special precautions for user

No data available.

14.7 Maritime transport in bulk according to IMO instruments

Not specified.

Other information

Type of transport	Land transport ADR / RID	Sea transport IMDG	Air Transport ICAO / IATA
Limited quantities:	5 L	5 L	Y964
Excepted quantities:	E1	E1	E1
Transport category:	3	-	-
Tunnel restriction code:	(-)	-	-
Segregation group:	-	-	-

SECTION 15: Regulatory information

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

all as amended and including implementing regulations

Regulation (EC) No. 1272/2008 (CLP) on classification, labelling and packaging of substances and mixtures,...

Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH),...

Applicable national regulations.

15.2 Chemical safety assessment

It was not performed for the mixture.

SECTION 16: Other information

Complete text of all classifications and hazard classes referred to in SECTION 3

Hazard class:

Acute Tox. 4 - Acute Toxicity, category 4
Aquatic Acute 1 - Acute aquatic toxicity, category 1
Aquatic Chronic 1 - Chronic (long term) aquatic hazard, category 1
Aquatic Chronic 3 - Chronic (long term) aquatic hazard, category 3
Asp. Tox. 1 - Aspiration hazard, category 1
Flam. Liq. 2 - Flammable liquids, category 2
Flam. Liq. 3 - Flammable liquids, category 3
Repr. 2 - Reproductive toxicity, category 2
STOT RE 2 - Specific target organ toxicity (repeated exposure), category 2
Skin Irrit. 2 - Skin irritation, category 2
Skin Sens. 1 - Skin sensitisation, category 1
Skin Sens. 1B - Skin sensitisation, category 1B

H-statements:

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H312/332 Harmful in contact with skin or if inhaled.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.
H361 Suspected of damaging fertility or the unborn child.
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.
H412 Harmful to aquatic life with long lasting effects.

Abbreviations

ADR	Accord Dangereuses Route
CAS	Chemical Abstracts Service
DNEL	Derived no-effect level
EC50	Effect concentration for 50 %
EINECS	European Inventory of Existing Commercial Chemical Substances
IATA	International Air Transport Association
IC50	Inhibition concentration for 50 %
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods

LC50	Lethal concentration for 50 %
LD50	Lethal dose for 50 %
LL50	Lethal load for 50 %
LOAEC	Lowest observable adverse effect concentration
LOEC	Lowest observable effect concentration
NOAEC	No observable adverse effect concentration
NOAEL	No observable adverse effect level
NOEC	No observable effect concentration
NOEL	No observable effect level
NPK-P	Maximum permissible concentration
OEL	Occupational Exposure Limit (workplace exposure limit - 8 hours / shift)
PBT	Persistent, bioaccumulative and toxic
PEL	Permissible exposure limits
PNEC	Predicted no-effect concentration
RID	Regulations for the International Carriage of Dangerous Goods by Rail
STEL	Short Term Exposure Limit (short exposure - corresponds to approx. 15 min.)
VOC	Volatile organic substances
vPvB	Very persistent and very bioaccumulative
WGK	Hazard classes for water (Wassergefährdungsklassen)

Changes to previous version SDS:

Modifications:

- Section 1 Changed mixture identification.
- Section 2 Changed label elements.
- Section 3 Composition/Ingredient information changed.
- Section 4 First aid instructions revised.
- Section 5 Amended instructions for firefighters.
- Section 6 Accidental release measures modified
- Section 7 Modified handling and storage.
- Section 8 Added control parameters. Fixed exposure limiting.
- Section 9 Modified physical and chemical properties.
- Section 10 Added persistence and reactivity.
- Section 11 Added toxicological properties.
- Section 12 Added ecological features.
- Section 13 Changed disposal instructions.
- Section 15 Update of Applicable Regulations
- Section 16 Update of abbreviations and full text of H phrases.

This revision follows the revision 2 (14-04-2020) and complies with Regulations (EC) No. 1907/2006 (REACH) and No. 1272/2008 (CLP).

Key literature references and sources for data: Safety data sheets of starting materials, previous versions of this safety data sheet, recipe, application sheet, registration documentation, CASEC database.

Classification was performed by calculation method.

Instructions for training

Workers who come into contact with dangerous substances must be aware of the effects of these substances, how they are treated, and protective measures to the extent necessary.

Furthermore, they must be familiar with the first aid principles, with the necessary sanitation procedures and with the procedures for disaster and accident elimination.

The person handling this chemical product must be familiar with the safety rules and the data given in the safety data sheet.

If a hazardous chemical / mixture is classified as corrosive or toxic, workers should be made aware of the Corrosive / Toxic Chemicals / Mixing Rules.

Persons carrying dangerous substances must be familiar with the ADR / RID accident instructions.

Other information

The above information describes the conditions for safe handling of the product and corresponds to the current knowledge of the manufacturer and serves as instruction for the training of the persons handling the product.

The manufacturer carries guarantee the above-described properties of the product at the recommended use.

The user is responsible for determining the suitability of the product for specific purposes and adapting security measures if such application is contrary to the manufacturer's recommendations.