

**SAFETY DATA SHEET**

according to Commission Regulation (EU) 2020/878 as amended

**Epoxy resin hardener for glazing**

Creation date

30th April 2024

Revision date

Version

2.0

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Substance / mixture

Epoxy resin hardener for glazing

mixture

UFI

YVFE-T6VC-S40T-A85X

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Mixture's intended use**

Hardener for high gloss and hard epoxy transparent compound for glazing most surfaces. Designed for all consumers.

**Mixture uses advised against**

The product should not be used in ways other than those referred in Section 1.

**1.3. Details of the supplier of the safety data sheet****Distributor**

Name or trade name

Manumi Crafts s.r.o.

Address

Třebohostická 564/9, Praha, 10000

Czech Republic

Identification number (CRN)

24260452

VAT Reg No

CZ24260452

Phone

+420 228 229 103

E-mail

info@manumi.cz

Web address

www.manumi.cz

**1.4. Emergency telephone number**

European emergency number: 112

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification of the mixture in accordance with Regulation (EC) No 1272/2008**

The mixture is classified as dangerous.

Acute Tox. 4, H302

Skin Corr. 1B, H314

Skin Sens. 1, H317

Eye Dam. 1, H318

Aquatic Chronic 2, H411

**Most serious adverse effects on human health and the environment**

Harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage. May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects.

**2.2. Label elements****Hazard pictogram****Signal word**

Danger

**Hazard statements**

H302

Harmful if swallowed.

H314

Causes severe skin burns and eye damage.

H317

May cause an allergic skin reaction.

H318

Causes serious eye damage.

H411

Toxic to aquatic life with long lasting effects.

**Precautionary statements**

P101

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

P102


Keep out of reach of children.

P260

Do not breathe vapours.

P273

Avoid release to the environment.



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P280

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

P301+P330+P331

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P305+P351+P338

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

P310

Immediately call a POISON CENTER/doctor.

P405

Store locked up.

P501

Dispose of contents/container to by disposing in a hazardous waste receptacle.

### Requirements for child-resistant fastenings and tactile warning of danger

Container must carry a tactile warning of danger. Container must be fitted with child-resistant fastening.

### 2.3. Other hazards

Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended. The mixture contains substances with 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

### 3.2. Mixtures

**Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment**

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
Index: 612-067-00-9 CAS: 2855-13-2 EC: 220-666-8	3-aminomethyl-3,5,5-trimethylcyclohexylamine	25-50	Acute Tox. 4, H302 Skin Corr. 1B, H314 Skin Sens. 1A, H317 Eye Dam. 1, H318 Specific concentration limit: ATE Oral = 1030 mg/kg bw Skin Sens. 1A, H317: C ≥ 0.001 %	
Index: 603-057-00-5 CAS: 100-51-6 EC: 202-859-9	benzyl alcohol	25-50	Acute Tox. 4, H302 Skin Sens. 1B, H317 Eye Irrit. 2, H319 Specific concentration limit: ATE Oral = 1200 mg/kg bw	
Index: 603-074-00-8 CAS: 25068-38-6 EC: 500-033-5	reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)	5-15	Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Aquatic Chronic 2, H411 Specific concentration limit: Skin Irrit. 2, H315: C ≥ 5 % Eye Irrit. 2, H319: C ≥ 5 %	
Index: 607-732-00-5 CAS: 69-72-7 EC: 200-712-3	salicylic acid	<5	Acute Tox. 4, H302 Eye Dam. 1, H318 Repr. 2, H361d	
CAS: 1477-55-0 EC: 216-032-5	m-Phenylenebis(methylamine)	<5	Acute Tox. 4, H302 Skin Corr. 1B, H314 Skin Sens. 1, H317 Acute Tox. 3, H331 Aquatic Chronic 3, H412	
Index: 603-002-00-5 CAS: 64-17-5 EC: 200-578-6	ethanol	<2,5	Flam. Liq. 2, H225	

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Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
Index: 601-053-00-8 CAS: 84852-15-3 EC: 284-325-5	4-nonylphenol, branched	<1	Acute Tox. 4, H302 Skin Corr. 1B, H314 Repr. 2, H361fd Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	1

### Notes

1 Substance of very high concern - SVHC.

Full text of all classifications and hazard statements is given in the section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

Take care of your own safety. If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet. If unconscious, put the person in the stabilized (recovery) position on his side with his head slightly bent backwards and make sure that airways are free; never induce vomiting. If the person vomits by himself, make sure that the vomit is not inhaled. In life threatening conditions first of all provide resuscitation of the affected person and ensure medical assistance. Respiratory arrest - provide artificial respiration immediately. Cardiac arrest - provide indirect cardiac massage immediately.

#### If inhaled

Terminate the exposure immediately; move the affected person to fresh air. Take care of your own safety, do not let the affected person walk! Beware of the contaminated clothes. Depending on the situation, call the medical rescue service and ensure medical treatment considering the frequent need of further observation for at least 24 hours.

#### If on skin

Remove contaminated clothes. Take off any rings, watches, bracelets before or during washing if worn in the contaminated areas of the skin. Rinse contaminated areas with a flow of water, lukewarm at best, for 10-30 minutes; do not use any brush, soap or neutralizers. Depending on the situation, call the medical rescue service and always ensure medical treatment. Rinse cautiously with water for several minutes. Rinse skin with water or shower.

#### If in eyes

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. No neutralization should be performed in any case! Rinsing should be continued for 10-30 minutes from the inner to the outer eye corner to make sure that the other eye is not involved. Depending on the situation, call medical rescue service or ensure medical treatment as promptly as possible. Everyone must be referred for treatment even if affected only a little.

#### If swallowed

RINSE THE MOUTH WITH WATER IMMEDIATELY AND LET THE PERSON DRINK 2-5 dl of cold water to reduce the heating effect of the corrosive substance. Consuming larger amounts of liquid is not advisable as it may induce vomiting and potential inhaling of the corrosive substances in the lungs. The affected person must not be forced to drink, particularly if already feeling pain in the mouth or throat. In this case let the affected person only rinse the mouth with water. DO NOT PROVIDE ACTIVATED CARBON! Depending on the situation, call medical rescue service or ensure medical treatment as promptly as possible.

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

#### If inhaled

Inhaling vapours can cause corrosion of the breathing system.

#### If on skin

Causes severe skin burns. May cause an allergic skin reaction.

#### If in eyes

Causes serious eye damage.

#### If swallowed

Corrosion of the digestion system can occur.

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

Symptomatic treatment.

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**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist.

**Unsuitable extinguishing media**

Water - full jet.

**5.2. Special hazards arising from the substance or mixture**

In the event of fire, carbon monoxide, carbon dioxide and other toxic gases may arise. Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.

**5.3. Advice for firefighters**

Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. Use a self-contained breathing apparatus and full-body protective clothing. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment for work. Follow the instructions in the Sections 7 and 8. Do not inhale mist/vapours/spray. Prevent contact with skin and eyes.

**6.2. Environmental precautions**

Prevent contamination of the soil and entering surface or ground water. Do not allow to enter drains.

**6.3. Methods and material for containment and cleaning up**

Spilled product should be covered with suitable (non-flammable) absorbing material (sand, diatomaceous earth, earth and other suitable absorption materials); to be contained in well closed containers and removed as per the Section 13. In the event of leakage of the substantial amount of the product, inform fire brigade and other competent bodies. After removal of the product, wash the contaminated site with plenty of water. Do not use solvents.

**6.4. Reference to other sections**

See the Section 7, 8 and 13.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

Prevent formation of gases and vapours in concentrations exceeding the occupational exposure limits. Do not inhale mist/vapours/spray. Prevent contact with skin and eyes. Wash hands and exposed parts of the body thoroughly after handling. Do not eat, drink or smoke when using this product. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection. Avoid release to the environment.

**7.2. Conditions for safe storage, including any incompatibilities**

Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose. Store locked up.

Storage temperature

+15 - +30 °C

**7.3. Specific end use(s)**

not available

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters**

The mixture contains substances for which occupational exposure limits are set.

**DNEL**

<b>3-aminomethyl-3,5,5-trimethylcyclohexylamine</b>					
Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Oral	0.526 mg/kg/24h	Chronic effects systemic		
Workers	Inhalation	0.073 mg/m <sup>3</sup>	Chronic effects systemic		

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### benzyl alcohol

Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Consumers	Oral	5 mg/kg/24h	Chronic effects systemic		
Consumers	Oral	25 mg/kg/24h	Acute effects systemic		
Consumers	Dermal	5.7 mg/kg/24h	Chronic effects systemic		
Workers	Dermal	9.5 mg/kg/24h	Chronic effects systemic		
Consumers	Dermal	28.5 mg/kg/24h	Acute effects systemic		
Workers	Dermal	47 mg/kg/24h	Acute effects systemic		
Consumers	Inhalation	19.1 mg/m <sup>3</sup>	Chronic effects systemic		
Workers	Inhalation	90 mg/m <sup>3</sup>	Chronic effects systemic		
Consumers	Inhalation	95.5 mg/m <sup>3</sup>	Acute effects systemic		
Workers	Inhalation	450 mg/m <sup>3</sup>	Acute effects systemic		

### ethanol

Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Consumers	Oral	87 mg/kg/24h	Chronic effects systemic		
Consumers	Dermal	206 mg/kg/24h	Chronic effects systemic		
Workers	Dermal	343 mg/kg/24h	Chronic effects systemic		
Consumers	Dermal	950 mg/cm <sup>2</sup>	Acute effects local		
Consumers	Inhalation	950 mg/m <sup>3</sup>	Chronic effects systemic		
Workers	Inhalation	950 mg/m <sup>3</sup>	Acute effects systemic		

### m-Phenylenebis(methylamine)

Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Dermal	0.33 mg/kg/24h	Chronic effects systemic		
Workers	Inhalation	1.2 mg/m <sup>3</sup>	Chronic effects systemic		
Workers	Inhalation	0.2 mg/m <sup>3</sup>	Chronic effects local		

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**reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight  $\leq 700$ )**

Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Consumers	Oral	0.75 mg/kg/24h	Chronic effects systemic		
Consumers	Dermal	3.571 mg/kg/24h	Chronic effects systemic		
Workers	Dermal	8.33 mg/kg/24h	Chronic effects systemic		
Workers	Inhalation	12.25 mg/m <sup>3</sup>	Chronic effects systemic		
Consumers	Oral	0.75 mg/kg/24h	Acute effects systemic		
Consumers	Dermal	3.571 mg/kg/24h	Acute effects systemic		
Workers	Dermal	8.33 mg/kg/24h	Acute effects systemic		
Workers	Inhalation	12.25 mg/m <sup>3</sup>	Chronic effects systemic		

**salicylic acid**

Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Consumers	Oral	1 mg/kg/24h	Chronic effects systemic		
Consumers	Oral	4 mg/kg/24h	Acute effects systemic		
Workers	Dermal	2 mg/kg/24h	Chronic effects systemic		
Consumers	Dermal	1 mg/kg/24h	Chronic effects systemic		
Workers	Inhalation	16 mg/m <sup>3</sup>	Chronic effects systemic		
Consumers	Inhalation	4 mg/m <sup>3</sup>	Chronic effects systemic		
Workers	Inhalation	1 mg/m <sup>3</sup>	Chronic effects local		
Consumers	Inhalation	0.2 mg/m <sup>3</sup>	Chronic effects local		
Workers	Inhalation	3 mg/m <sup>3</sup>	Acute effects systemic		

**PNEC****3-aminomethyl-3,5,5-trimethylcyclohexylamine**

Route of exposure	Value	Value determination	Source
Freshwater environment	0.06 mg/l		
Marine water	0.006 mg/l		
Microorganisms in sewage treatment	3.18 mg/l		
Freshwater sediment	5.784 mg/kg		
Sea sediments	0.5784 mg/kg		
Soil (agricultural)	1.121 mg/kg		

**benzyl alcohol**

Route of exposure	Value	Value determination	Source
Freshwater environment	1 mg/l		
Marine water	0.1 mg/l		
Microorganisms in sewage treatment	39 mg/l		

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**benzyl alcohol**

Route of exposure	Value	Value determination	Source
Freshwater sediment	5.27 mg/kg		
Sea sediments	0.527 mg/kg		
Soil (agricultural)	0.456 mg/kg		

**ethanol**

Route of exposure	Value	Value determination	Source
Freshwater environment	0.96 mg/l		
Marine water	0.79 mg/l		
Microorganisms in sewage treatment	580 mg/l		
Freshwater sediment	3.6 mg/kg		
Sea sediments	2.9 mg/kg		
Soil (agricultural)	0.63 mg/kg		
Food chain	0.72 mg/kg		
Water (intermittent release)	2.75 mg/l		

**m-Phenylenebis(methylamine)**


Route of exposure	Value	Value determination	Source
Freshwater environment	0.094 mg/l		
Marine water	0.009 mg/l		
Microorganisms in sewage treatment	10 mg/l		
Freshwater sediment	0.43 mg/kg		
Sea sediments	0.043 mg/kg		
Soil (agricultural)	0.045 mg/kg		

**reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)**

Route of exposure	Value	Value determination	Source
Freshwater environment	0.006 mg/l		
Marine water	0.0006 mg/l		
Freshwater sediment	0.996 mg/kg		
Sea sediments	0.0996 mg/kg		
Soil (agricultural)	0.196 mg/kg		
Food chain	11 mg/kg		
Water (intermittent release)	0.018 mg/l		
Microorganisms in sewage treatment	10 mg/l		

**salicylic acid**

Route of exposure	Value	Value determination	Source
Freshwater environment	0.2 mg/l		
Marine water	0.02 mg/m <sup>3</sup>		
Microorganisms in sewage treatment	162 mg/l		
Freshwater sediment	1.42 mg/kg		
Sea sediments	0.14 mg/kg		
Soil (agricultural)	0.17 mg/kg		

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**8.2. Exposure controls**  
 Take off contaminated clothing and wash before reuse. Follow the usual measures intended for health protection at work and especially for good ventilation. This can be achieved only by local suction or efficient general ventilation. Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

**Eye/face protection**  
 Protective goggles or face shield (based on the nature of the work performed).

**Skin protection**  
 Hand protection: Protective gloves resistant to the product. When choosing appropriate thickness, material and permeability of the gloves, observe recommendations of their particular manufacturer. Observe other recommendations of the manufacturer. Other protection: protective workwear. Contaminated skin should be washed thoroughly.

**Respiratory protection**  
 Halfmask with a filter against organic vapours or a self-contained breathing apparatus as appropriate if exposure limit values of substances are exceeded or in a poorly ventilated environment.

**Thermal hazard**  
 Not available.

**Environmental exposure controls**  
 Observe usual measures for protection of the environment, see Section 6.2. Collect spillage.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	liquid
Colour	colourless, yellow
color intensity	light
Odour	containing ammoniac
Melting point/freezing point	data not available
Boiling point or initial boiling point and boiling range	data not available
Flammability	data not available
Lower and upper explosion limit	data not available
Flash point	data not available
Auto-ignition temperature	not relevant
Decomposition temperature	data not available
pH	data not available
Kinematic viscosity	data not available
Viscosity	cca 700 mPa at 25 °C
Solubility in water	data not available
Partition coefficient n-octanol/water (log value)	data not available
Vapour pressure	data not available
Density and/or relative density	
Density	1.05 g/cm <sup>3</sup> at 25 °C
Relative vapour density	data not available
Particle characteristics	data not available

### 9.2. Other information

not available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

not available


### 10.2. Chemical stability

The product is stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Unknown.





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- 10.4. Conditions to avoid**  
The product is stable and no degradation occurs under normal use. Protect against flames, sparks, overheating and against frost.
- 10.5. Incompatible materials**  
Protect against strong acids, bases and oxidizing agents.
- 10.6. Hazardous decomposition products**  
Not developed under normal uses. Dangerous outcomes such as carbon monoxide and carbon dioxide are formed at high temperature and in fire.

## SECTION 11: Toxicological information

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

Inhalation of solvent vapors above values exceeding exposure limits for working environment may result in acute inhalation poisoning, depending on the level of concentration and exposure time. No toxicological data is available for the mixture.

#### Acute toxicity

Harmful if swallowed.

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Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination
Oral	ATE		833 mg/kg				Calculation of value
Dermal	ATE		2.200 mg/kg				Calculation of value
Inhalation	ATE		22 mg/l	48 hours			Calculation of value

3-aminomethyl-3,5,5-trimethylcyclohexylamine							
Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination
Oral	LD <sub>50</sub>		1.030 mg/kg		Rat (Rattus norvegicus)		
Dermal	ATE		1.100 mg/kg				
Oral	ATE		1030 mg/kg bw				

4-nonylphenol, branched							
Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination
Oral	LD <sub>50</sub>		1.300 mg/kg		Rat (Rattus norvegicus)		

benzyl alcohol							
Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination
Oral	LD <sub>50</sub>		1.620 mg/kg		Rat (Rattus norvegicus)		
Dermal	LD <sub>50</sub>		>2.000 mg/kg		Rabbit		
Inhalation	LC <sub>50</sub>	OECD 403	>4.178 mg/l	4 hours	Rat (Rattus norvegicus)		
Oral	ATE		1200 mg/kg bw				

ethanol							
Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination
Oral	LD <sub>50</sub>	OECD 401	10.470 mg/kg		Rat (Rattus norvegicus)		
Dermal	LD <sub>50</sub>	OECD 402	>2.000 mg/kg		Rabbit		



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ethanol							
Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination
Inhalation	LC <sub>50</sub>	OECD 403	124.7 mg/l	4 hours	Rat (Rattus norvegicus)		
	NOAEL	OECD 451	>3.000 mg/kg				
	NOAEL	OECD 408	1.730 mg/kg/24h		Rat (Rattus norvegicus)	F	

m-Phenylenebis(methylamine)							
Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination
Oral	LD <sub>50</sub>		930 mg/kg		Rat (Rattus norvegicus)		
	LD <sub>50</sub>		>2.000 mg/kg		Rabbit		
Inhalation	ATE		1.5 mg/l	48 hours			

reaction product: bisphenol-A(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)							
Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination
Oral	LD <sub>50</sub>	OECD 420	>2.000 mg/kg		Rat (Rattus norvegicus)		
Skin	LD <sub>50</sub>		>2.000 mg/kg		Rabbit		
	NOAEL		50 mg/kg				
	NOEL	OECD 416	540 mg/kg				

salicylic acid							
Route of exposure	Parameter	Method	Value	Exposure time	Species	Sex	Value determination
Oral	LD <sub>50</sub>	OECD 401	1.250-1.580 mg/kg		Rat (Rattus norvegicus)		
Dermal	LD <sub>50</sub>		>2.000 mg/kg		Rat (Rattus norvegicus)		

#### Skin corrosion/irritation

Causes severe skin burns and eye damage. Data for the components of the mixture are not available.

#### Serious eye damage/irritation

Causes severe skin burns and eye damage. Causes serious eye damage. Data for the components of the mixture are not available.

#### Respiratory or skin sensitisation

May cause an allergic skin reaction. Data for the components of the mixture are not available.

#### Germ cell mutagenicity


No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

#### Carcinogenicity

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

#### Reproductive toxicity

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

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**Toxicity for specific target organ - single exposure**

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

**Toxicity for specific target organ - repeated exposure**

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

**Aspiration hazard**

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

**11.2. Information on other hazards**

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

**SECTION 12: Ecological information**

**12.1. Toxicity**


Toxic to aquatic life with long lasting effects.

**Acute toxicity**

3-aminomethyl-3,5,5-trimethylcyclohexylamine					
Parameter	Method	Value	Exposure time	Species	Environment
LC <sub>50</sub>		110 mg/l	96 hours	Fish (Leuciscus idus)	
EC <sub>50</sub>		17.4 mg/l	48 hours	Daphnia (Daphnia magna)	
EC <sub>50</sub>		37 mg/l		Algae (Desmodesmus subspicatus)	

4-nonylphenol, branched					
Parameter	Method	Value	Exposure time	Species	Environment
LC <sub>50</sub>		0.135 mg/l	96 hours	Fish (Lepomis macrochirus)	

benzyl alcohol					
Parameter	Method	Value	Exposure time	Species	Environment
LC <sub>50</sub>		10-460 mg/l	96 hours	Fish (Pimephales promelas)	
EC <sub>50</sub>	OECD 202	230 mg/l	48 hours	Daphnia (Daphnia magna)	
IC <sub>50</sub>	OECD 201	700 mg/l	72 hours	Algae (Pseudokirchneriella subcapitata)	
EC <sub>50</sub>	ISO 8192	390 mg/l	24 hours	Bacteria (Salmonella typhimurium)	
NOEC	OECD 201	310 mg/l	72 hours	Algae (Pseudokirchneriella subcapitata)	
NOEC	OECD 211	51 mg/l	21 days	Daphnia (Daphnia magna)	



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ethanol					
Parameter	Method	Value	Exposure time	Species	Environment
LC <sub>50</sub>	OECD 203	13.000 mg/l	96 hours	Fish (Oncorhynchus mykiss)	
EC <sub>50</sub>	OECD 201	12.9000 mg/l		Algae (Selenastrum capricornutum)	

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)					
Parameter	Method	Value	Exposure time	Species	Environment
LC <sub>50</sub>		1.2 mg/l	96 hours	Fish (Oncorhynchus mykiss)	
EC <sub>50</sub>	OECD 202	1.1 mg/l	48 hours	Daphnia (Daphnia magna)	
IC <sub>50</sub>		>100 mg/l		Bacteria (Salmonella typhimurium)	
EC <sub>50</sub>		9.4 mg/l	72 hours	Algae (Selenastrum capricornutum)	
		4.2 mg/l	72 hours	Algae (Selenastrum capricornutum)	
NOEC		0.3 mg/l	21 days	Daphnia (Daphnia magna)	

salicylic acid					
Parameter	Method	Value	Exposure time	Species	Environment
EC <sub>50</sub>		870 mg/l		Daphnia (Daphnia magna)	

**12.2. Persistence and degradability**  
 Data for the mixture are not available.  
**Biodegradability**


benzyl alcohol					
Parameter	Method	Value	Exposure time	Environment	Result
	OECD 301C	92-96 %	28 days	Fresh water	Easily biodegradable
	OECD 301A	95-97 %	21 days	Fresh water	Easily biodegradable

ethanol					
Parameter	Method	Value	Exposure time	Environment	Result
	OECD 301B	97 %	28 days		Easily biodegradable

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)					
Parameter	Method	Value	Exposure time	Environment	Result
	OECD 301F	5 %	28 days		Hardly biodegradable

**12.3. Bioaccumulative potential**  
 Data for the mixture are not available.

benzyl alcohol						
Parameter	Value	Exposure time	Species	Environment	Temperature [°C]	Value determination
Log Pow	1.1					

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ethanol						
Parameter	Value	Exposure time	Species	Environment	Temperature [°C]	Value determination
Log Pow	-0.32					Inconclusive
BCF	0.66-3.2					
Log Kow	-0.31					

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)						
Parameter	Value	Exposure time	Species	Environment	Temperature [°C]	Value determination
Log Pow	3.26				25°C	
BCF	1.11					

**12.4. Mobility in soil**  
 Data for the mixture are not available.

ethanol			
Parameter	Value	Environment	Temperature
	0.0000138 Pa.m³/mol		

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)			
Parameter	Value	Environment	Temperature
Log Koc	2.65 mg/kg		20°C

salicylic acid			
Parameter	Value	Environment	Temperature
Log Koc	2.26		

**12.5. Results of PBT and vPvB assessment**  
 Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

**12.6. Endocrine disrupting properties**  
 The mixture contains substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

**12.7. Other adverse effects**  
 Not available.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**  
 Hazard of environmental contamination; dispose of the waste in accordance with the local and/or national regulations. Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification. Perfectly cleaned containers can be submitted for recycling.

**Waste management legislation**  
 Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

**Waste type code**  
 08 04 09\* waste adhesives and sealants containing organic solvents or other hazardous substances  
 15 01 10\* packaging containing residues of or contaminated by hazardous substances

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## Packaging waste type code

15 01 02 plastic packaging

15 01 04 metallic packaging

(\*) - Hazardous waste according to Directive 2008/98/EC on hazardous waste

## SECTION 14: Transport information

## 14.1. UN number or ID number

UN 1760

## 14.2. UN proper shipping name

CORROSIVE LIQUID, N.O.S.

## 14.3. Transport hazard class(es)

8 Corrosive substances

## 14.4. Packing group

II

## 14.5. Environmental hazards

not relevant

## 14.6. Special precautions for user

Reference in the Sections 4 to 8.

## 14.7. Maritime transport in bulk according to IMO instruments

not relevant

## Additional information

Hazard identification No.

UN number

Classification code

Safety signs

80

1760

C9

8+ hazardous for the environment



Tunnel restriction code

(E)

## Air transport - ICAO/IATA

Packaging instructions passenger

851

Cargo packaging instructions

855

## Marine transport - IMDG

EmS (emergency plan)

F-A, S-B

MFAG

760

Marine pollutant

Yes

## SECTION 15: Regulatory information

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

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

## 15.2. Chemical safety assessment

not available

## SECTION 16: Other information

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### A list of standard risk phrases used in the safety data sheet

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H361d	Suspected of damaging the unborn child.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
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.

### Guidelines for safe handling used in the safety data sheet


P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P260	Do not breathe vapours.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P405	Store locked up.
P501	Dispose of contents/container to by disposing in a hazardous waste receptacle.

### Other important information about human health protection

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

### Key to abbreviations and acronyms used in the safety data sheet

ADR	European agreement concerning the international carriage of dangerous goods by road
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
EC	Identification code for each substance listed in EINECS
EC <sub>50</sub>	Concentration of a substance when it is affected 50% of the population
EINECS	European Inventory of Existing Commercial Chemical Substances
EmS	Emergency plan
EU	European Union
EuPCS	European Product Categorisation System
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
IC <sub>50</sub>	Concentration causing 50% blockade
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry

	
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LC <sub>50</sub>	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD <sub>50</sub>	Lethal dose of a substance in which it can be expected death of 50% of the population
log K <sub>ow</sub>	Octanol-water partition coefficient
NOAEL	No observed adverse effect level
NOEC	No observed effect concentration
NOEL	No observed effect level
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Agreement on the transport of dangerous goods by rail
UN	Four-figure identification number of the substance or article taken from the UN Model Regulations
UVCB	Substances of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bioaccumulative
Acute Tox.	Acute toxicity
Aquatic Acute	Hazardous to the aquatic environment
Aquatic Chronic	Hazardous to the aquatic environment (chronic)
Eye Dam.	Serious eye damage
Flam. Liq.	Flammable liquid
Repr.	Reproductive toxicity
Skin Corr.	Skin corrosion
Skin Sens.	Skin sensitization

**Training guidelines**

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

**Recommended restrictions of use**

not available

**Information about data sources used to compile the Safety Data Sheet**

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended.  
REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

**The changes (which information has been added, deleted or modified)**

The version 2.0 replaces the SDS version from 10 April 2024. Changes were made in sections 2 and 16.

**More information**

Classification procedure - calculation method.

**Statement**

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.