Safety data sheet



This SDS is an English translation of COMMISSION REGULATION (EU) 2020/878, without any country-specific legislation

5450 EPOXY HARDENER

Printing: 05/09/2022 Date of compilation: 26/12/2011 Revised: 28/02/2022 Version: 5 (Replaced 4)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier: 5450 EPOXY HARDENER

Other means of identification:

UFI: R45H-80KR-N00S-X9G5

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

Relevant uses: Car repair. For professional users only.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Details of the supplier of the safety data sheet:

ETALON is a brand of Alexport Company. Pontou 26, P.C. 546 28, Thessaloniki, Greece, Tel: +30 2310 501814, Fax: +30 2310 524 771 info@alexport.gr, www.alexport.gr www.etalon-refinish.com

1.4 Emergency telephone number: 122 or call your local doctor/poison center

SECTION 2: HAZARDS IDENTIFICATION **

2.1 Classification of the substance or mixture:

CLP Regulation (EC) No 1272/2008:

Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.

Acute Tox. 4: Acute toxicity, Category 4, H312+H332

Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412

Eye Dam. 1: Serious eye damage, Category 1, H318 Flam. Liq. 3: Flammable liquids, Category 3, H226 Skin Irrit. 2: Skin irritation, Category 2, H315

STOT RE 2: Specific target organ toxicity — Repeated exposure, Hazard Category 2 (Oral), H373

STOT SE 3: Respiratory tract toxicity, single exposure, Category 3, H335

2.2 Label elements:

CLP Regulation (EC) No 1272/2008:

Danger









Hazard statements:

Acute Tox. 4: H312+H332 - Harmful in contact with skin or if inhaled. Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.

Eye Dam. 1: H318 - Causes serious eye damage. Flam. Liq. 3: H226 - Flammable liquid and vapour.

Skin Irrit. 2: H315 - Causes skin irritation.

STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure (Oral).

STOT SE 3: H335 - May cause respiratory irritation.

Precautionary statements:

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P280: Wear protective gloves/protective clothing/respiratory protection/eye protection/protective footwear.

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

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.

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

P501: Dispose of contents/container in accordance with regulations on hazardous waste or packaging and packaging waste respectively.

Substances that contribute to the classification

Xylene; Polyamidoamine adduct; butan-1-ol

^{**} Changes with regards to the previous version

Printing: 05/09/2022 Date of compilation: 26/12/2011 Revised: 28/02/2022 Version: 5 (Replaced 4)

SECTION 2: HAZARDS IDENTIFICATION ** (continued)

2.3 Other hazards:

Product fails to meet PBT/vPvB criteria Endocrine-disrupting properties: The product fails to meet the criteria.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Mixture composed of chemical products

Components:

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

	Identification		Chemical name/Classification		Concentration		
CAS:	1330-20-7	Xylene(1)	Xylene ⁽¹⁾ Self-classified				
EC: Index: REACH:	215-535-7 601-022-00-9 01-2119488216-32- XXXX	Regulation 1272/2008	Acute Tox. 4: H312+H332; Aquatic Chronic 3: H412; Asp. Tox. 1: H304; Eye Irrit. 2: H319; Flam. Liq. 3: H226; Skin Irrit. 2: H315; STOT RE 2: H373; STOT SE 3: H335 - Danger	(¹) ⟨®) ⟨\$	50 - <75 %		
CAS:	Non-applicable	Polyamidoamine add	uct ⁽¹⁾	Self-classified			
EC: Non-applicable Index: Non-applicable REACH: Non-applicable Regulat	Regulation 1272/2008	Eye Dam. 1: H318 - Danger		10 - <25 %			
CAS:	71-36-3	butan-1-ol ⁽¹⁾		Self-classified			
Index: 603-0	200-751-6 603-004-00-6 01-2119484630-38- XXXX	Regulation 1272/2008	Acute Tox. 4: H302; Eye Dam. 1: H318; Flam. Liq. 3: H226; Skin Irrit. 2: H315; STOT SE 3: H335; STOT SE 3: H336 - Danger	(!) (3)	10 - <25 %		
CAS:	108-65-6	2-methoxy-1-methyl	ethyl acetate ⁽²⁾	ATP ATP01			
EC: Index: REACH:	203-603-9 607-195-00-7 01-2119475791-29- XXXX	Regulation 1272/2008	Flam. Liq. 3: H226 - Warning	&	2,5 - <5 %		

⁽¹⁾ Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2020/878

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

^{**} Changes with regards to the previous version

⁽²⁾ Substance with a Union workplace exposure limit

Printing: 05/09/2022 Date of compilation: 26/12/2011 Revised: 28/02/2022 Version: 5 (Replaced 4)

SECTION 4: FIRST AID MEASURES (continued)

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

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

Acute and delayed effects are indicated in sections 2 and 11.

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

Non-applicable

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:

If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO2).

Unsuitable extinguishing media:

IT IS RECOMMENDED NOT to use full jet water as an extinguishing agent.

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inert medium. Remove any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

For emergency responders:

See section 8.

6.2 Environmental precautions:

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

Printing: 05/09/2022 Date of compilation: 26/12/2011 Revised: 28/02/2022 Version: 5 (Replaced 4)

SECTION 7: HANDLING AND STORAGE (continued)

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Transfer in well ventilated areas, preferably through localized extraction. Fully control sources of ignition (mobile phones, sparks,...) and ventilate during cleaning operations. Avoid the existence of dangerous atmospheres inside containers, applying inertization systems where possible. Transfer at a slow speed to avoid the creation of electrostatic charges. Against the possibility of electrostatic charges: ensure a perfect equipotential connection, always use groundings, do not wear work clothes made of acrylic fibres, preferably wearing cotton clothing and conductive footwear. Comply with the essential security requirements for equipment and systems defined in Directive 2014/34/EC (ATEX 100) and with the minimum requirements for protecting the security and health of workers under the selection criteria of Directive 1999/92/EC (ATEX 137). Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Minimum Temp.: 15 °C

Maximum Temp.: 25 °C

Maximum time: 12 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace (European OEL, not country-specific legislation):

Directive (EU) 2000/39, Directive 2004/37/EC, Directive (EU) 2006/15, Directive (EU) 2009/161, Directive (EU) 2017/164, Directive (EU) 2019/1831:

Identification	Occupational exposure limits		
Xylene	IOELV (8h)	50 ppm	221 mg/m ³
CAS: 1330-20-7 EC: 215-535-7	IOELV (STEL)	100 ppm	442 mg/m ³
2-methoxy-1-methylethyl acetate	IOELV (8h)	50 ppm	275 mg/m ³
CAS: 108-65-6 EC: 203-603-9	IOELV (STEL)	100 ppm	550 mg/m ³

DNEL (Workers):

		Short exposure		Long exposure	
Identification		Systemic	Local	Systemic	Local
Xylene	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 1330-20-7	Dermal	Non-applicable	Non-applicable	212 mg/kg	Non-applicable
EC: 215-535-7	Inhalation	442 mg/m³	442 mg/m³	221 mg/m ³	221 mg/m³
butan-1-ol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 71-36-3	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
EC: 200-751-6	Inhalation	Non-applicable	Non-applicable	Non-applicable	310 mg/m ³
2-methoxy-1-methylethyl acetate	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 108-65-6	Dermal	Non-applicable	Non-applicable	796 mg/kg	Non-applicable
EC: 203-603-9	Inhalation	Non-applicable	550 mg/m ³	275 mg/m ³	Non-applicable

Printing: 05/09/2022 Date of compilation: 26/12/2011 Revised: 28/02/2022 Version: 5 (Replaced 4)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

DNEL (General population):

		Short exposure		Long exposure	
Identification		Systemic	Local	Systemic	Local
Xylene	Oral	Non-applicable	Non-applicable	12,5 mg/kg	Non-applicable
CAS: 1330-20-7	Dermal	Non-applicable	Non-applicable	125 mg/kg	Non-applicable
EC: 215-535-7	Inhalation	260 mg/m ³	260 mg/m ³	65,3 mg/m ³	65,3 mg/m ³
butan-1-ol	Oral	Non-applicable	Non-applicable	1,562 mg/kg	Non-applicable
CAS: 71-36-3	Dermal	Non-applicable	Non-applicable	3,125 mg/kg	Non-applicable
EC: 200-751-6	Inhalation	Non-applicable	Non-applicable	55,357 mg/m ³	155 mg/m ³
2-methoxy-1-methylethyl acetate	Oral	Non-applicable	Non-applicable	36 mg/kg	Non-applicable
CAS: 108-65-6	Dermal	Non-applicable	Non-applicable	320 mg/kg	Non-applicable
EC: 203-603-9	Inhalation	Non-applicable	Non-applicable	33 mg/m ³	33 mg/m ³

PNEC:

Identification				
Xylene	STP	6,58 mg/L	Fresh water	0,327 mg/L
CAS: 1330-20-7	Soil	2,31 mg/kg	Marine water	0,327 mg/L
EC: 215-535-7	Intermittent	0,327 mg/L	Sediment (Fresh water)	12,46 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	12,46 mg/kg
butan-1-ol	STP	2476 mg/L	Fresh water	0,082 mg/L
CAS: 71-36-3	Soil	0,017 mg/kg	Marine water	0,008 mg/L
EC: 200-751-6	Intermittent	2,25 mg/L	Sediment (Fresh water)	0,324 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,032 mg/kg
2-methoxy-1-methylethyl acetate	STP	100 mg/L	Fresh water	0,635 mg/L
CAS: 108-65-6	Soil	0,29 mg/kg	Marine water	0,064 mg/L
EC: 203-603-9	Intermittent	6,35 mg/L	Sediment (Fresh water)	3,29 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,329 mg/kg

8.2 Exposure controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<CE marking>> in accordance with Regulation (EU) 2016/425. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
Mandatory respiratory tract protection	Filter mask for gases and vapours (Filter type: A)	CAT III	EN 405:2002+A1:2010	Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment.

C.- Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
Mandatory hand protection	NON-disposable chemical protective gloves (Material: Latex (natural rubber), Breakthrough time: > 480 min, Thickness: 0.4 mm)	CAT III	EN ISO 374-1:2016+A1:2018 EN 16523-1:2015+A1:2018 EN ISO 21420:2020	The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin.

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

Printing: 05/09/2022 Date of compilation: 26/12/2011 Revised: 28/02/2022 Version: 5 (Replaced 4)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Pictogram	PPE	Labelling	CEN Standard	Remarks
Mandatory face	Panoramic glasses against splash/projections.	CAT II	EN 166:2002 EN ISO 4007:2018	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Body protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
Mandatory complete body protection	Disposable clothing for protection against chemical risks, with antistatic and fireproof properties	CAT III	EN 1149-1,2,3 EN 13034:2005+A1:2009 EN ISO 13982- 1:2004/A1:2010 EN ISO 6529:2013 EN ISO 6530:2005 EN ISO 13688:2013 EN 464:1994	For professional use only. Clean periodically according to the manufacturer's instructions.
Mandatory foot protection	Safety footwear with antistatic and heat resistant properties	CAT III	EN ISO 13287:2020 EN ISO 20345:2011	Replace boots at any sign of deterioration.

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
= +	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	⊣ (DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011
Emergency shower		Eyewash stations	

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C:

Appearance:

Colour:

Colour:

Colour:

Solvent

Odour threshold: Non-applicable *

Volatility:

Boiling point at atmospheric pressure: 133 °C Vapour pressure at 20 °C: 791 Pa

Vapour pressure at 50 °C: 4529,76 Pa (4,53 kPa) Evaporation rate at 20 °C: Non-applicable *

Product description:

Density at 20 °C: 881 kg/m³
Relative density at 20 °C: 0,884

Dynamic viscosity at 20 °C: 30000 cP

Kinematic viscosity at 20 °C: 33946,74 mm²/s

*Not relevant due to the nature of the product, not providing information property of its hazards.

Printing: 05/09/2022 Date of compilation: 26/12/2011 Revised: 28/02/2022 Version: 5 (Replaced 4)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Kinematic viscosity at 40 °C: Non-applicable * Concentration: Non-applicable * pH: Non-applicable * Vapour density at 20 °C: Non-applicable * Partition coefficient n-octanol/water 20 °C: Non-applicable * Solubility in water at 20 °C: Non-applicable * Solubility properties: Non-applicable * Non-applicable * Decomposition temperature: Melting point/freezing point: Non-applicable *

Flammability:

Flash Point: 27 °C

Flammability (solid, gas): Non-applicable *

Autoignition temperature: 315 °C

Lower flammability limit: Not available

Upper flammability limit: Not available

Particle characteristics:

Median equivalent diameter: Non-applicable

9.2 Other information:

Information with regard to physical hazard classes:

Explosive properties:

Oxidising properties:

Non-applicable *

Corrosive to metals:

Non-applicable *

Non-applicable *

Non-applicable *

Aerosols-total percentage (by mass) of flammable

Non-applicable *

components:

Other safety characteristics:

Surface tension at 20 °C: Non-applicable * Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Risk of combustion	Avoid direct impact	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Avoid direct impact	Not applicable	Avoid alkalis or strong bases

10.6 Hazardous decomposition products:

Printing: 05/09/2022 Date of compilation: 26/12/2011 Revised: 28/02/2022 Version: 5 (Replaced 4)

SECTION 10: STABILITY AND REACTIVITY (continued)

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

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

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

- A- Ingestion (acute effect):
 - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
 - Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- B- Inhalation (acute effect):
 - Acute toxicity: Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
 - Corrosivity/Irritability: Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.
- C- Contact with the skin and the eyes (acute effect):
 - Contact with the skin: Produces skin inflammation.
 - Contact with the eyes: Produces serious eye damage after contact.
- D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
 - Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.

 IARC: Xylene (3)
 - Mutagénicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
 - Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- E- Sensitizing effects:
 - Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
 - Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- F- Specific target organ toxicity (STOT) single exposure:

Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

- G- Specific target organ toxicity (STOT)-repeated exposure:
 - Specific target organ toxicity (STOT)-repeated exposure: Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
 - Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- H- Aspiration hazard:

Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

Safety data sheet

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5450 EPOXY HARDENER

Printing: 05/09/2022 Date of compilation: 26/12/2011 Revised: 28/02/2022 Version: 5 (Replaced 4)

SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Identification	А	Acute toxicity	
butan-1-ol	LD50 oral	500 mg/kg (ATEi)	
CAS: 71-36-3	LD50 dermal	3400 mg/kg	Rabbit
EC: 200-751-6	LC50 inhalation	24,66 mg/L (4 h)	Rat
Polyamidoamine adduct	LD50 oral	>2000 mg/kg	
CAS: Non-applicable	LD50 dermal	>2000 mg/kg	
EC: Non-applicable	LC50 inhalation	>20 mg/L	
Xylene	LD50 oral	2100 mg/kg	Rat
CAS: 1330-20-7	LD50 dermal	1100 mg/kg	Rat
EC: 215-535-7	LC50 inhalation	11 mg/L (ATEi)	
2-methoxy-1-methylethyl acetate	LD50 oral	8532 mg/kg	Rat
CAS: 108-65-6	LD50 dermal	5100 mg/kg	Rat
EC: 203-603-9	LC50 inhalation	30 mg/L (4 h)	Rat

11.2 Information on other hazards:

Endocrine disrupting properties

Endocrine-disrupting properties: The product fails to meet the criteria.

Other information

Non-applicable

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Toxicity:

Acute toxicity:

Identification	Concentration		Species	Genus
Xylene	LC50	>10 - 100 (96 h)		Fish
CAS: 1330-20-7	EC50	>10 - 100 (48 h)		Crustacean
EC: 215-535-7	EC50	>10 - 100 (72 h)		Algae
butan-1-ol	LC50	1740 mg/L (96 h)	Pimephales promelas	Fish
CAS: 71-36-3	EC50	1983 mg/L (48 h)	Daphnia magna	Crustacean
EC: 200-751-6	EC50	500 mg/L (96 h)	Scenedesmus subspicatus	Algae
2-methoxy-1-methylethyl acetate	LC50	161 mg/L (96 h)	Pimephales promelas	Fish
CAS: 108-65-6	EC50	481 mg/L (48 h)	Daphnia sp.	Crustacean
EC: 203-603-9	EC50	Non-applicable		

Printing: 05/09/2022 Date of compilation: 26/12/2011 Revised: 28/02/2022 Version: 5 (Replaced 4)

SECTION 12: ECOLOGICAL INFORMATION (continued)

Chronic toxicity:

- Identification		Concentration	Species	Genus	
Identification		Concentration	Species	Gerius	
Xylene	NOEC	1,3 mg/L	Oncorhynchus mykiss	Fish	
CAS: 1330-20-7 EC: 215-535-7	NOEC	1,17 mg/L	Ceriodaphnia dubia	Crustacean	
butan-1-ol	NOEC	Non-applicable			
CAS: 71-36-3 EC: 200-751-6	NOEC	4,1 mg/L	Daphnia magna	Crustacean	
2-methoxy-1-methylethyl acetate	NOEC	47,5 mg/L	Oryzias latipes	Fish	
CAS: 108-65-6 EC: 203-603-9	NOEC	100 mg/L	Daphnia magna	Crustacean	

12.2 Persistence and degradability:

Identification	Degradability		Biodegradability	
Xylene	BOD5	Non-applicable	Concentration	Non-applicable
CAS: 1330-20-7	COD	Non-applicable	Period	28 days
EC: 215-535-7	BOD5/COD	Non-applicable	% Biodegradable	88 %
butan-1-ol	BOD5	1,71 g O2/g	Concentration	Non-applicable
CAS: 71-36-3	COD	2,46 g O2/g	Period	19 days
EC: 200-751-6	BOD5/COD	0,7	% Biodegradable	98 %
2-methoxy-1-methylethyl acetate	BOD5	Non-applicable	Concentration	785 mg/L
CAS: 108-65-6	COD	Non-applicable	Period	8 days
EC: 203-603-9	BOD5/COD	Non-applicable	% Biodegradable	100 %

12.3 Bioaccumulative potential:

Identification	Bioaccumulation potential		
Xylene	BCF	9	
CAS: 1330-20-7	Pow Log	2.77	
EC: 215-535-7	Potential	Low	
butan-1-ol	BCF	1	
CAS: 71-36-3	Pow Log	0.88	
EC: 200-751-6	Potential	Low	
2-methoxy-1-methylethyl acetate	BCF	1	
CAS: 108-65-6	Pow Log	0.43	
EC: 203-603-9	Potential	Low	

12.4 Mobility in soil:

Identification	Absorption/desorption		Volat	ility
Xylene	Koc	202	Henry	524,86 Pa·m³/mol
CAS: 1330-20-7	Conclusion	Moderate	Dry soil	Yes
EC: 215-535-7	Surface tension	Non-applicable	Moist soil	Yes

Printing: 05/09/2022 Date of compilation: 26/12/2011 Revised: 28/02/2022 Version: 5 (Replaced 4)

SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Absorption/desorption		Volat	ility
butan-1-ol	Koc 2.44		Henry	5,39E-2 Pa·m³/mol
CAS: 71-36-3	Conclusion	Very High	Dry soil	Yes
EC: 200-751-6	Surface tension	2,567E-2 N/m (25 °C)	Moist soil	Yes

12.5 Results of PBT and vPvB assessment:

Product fails to meet PBT/vPvB criteria

12.6 Endocrine disrupting properties:

Endocrine-disrupting properties: The product fails to meet the criteria.

12.7 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

C	Code	Description	Waste class (Regulation (EU) No 1357/2014)
	It is not possible to assign a specific code, as it depends on the intended use by the user		Dangerous

Type of waste (Regulation (EU) No 1357/2014):

HP14 Ecotoxic, HP3 Flammable, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP6 Acute Toxicity, HP4 Irritant — skin irritation and eye damage

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. Waste should not be disposed of to drains. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2021 and RID 2021:



14.1 UN number or ID number: UN1263
 14.2 UN proper shipping name: PAINT
 14.3 Transport hazard class(es): 3
 Labels: 3

14.4 Packing group: III14.5 Environmental hazards: No

14.6 Special precautions for user

Special regulations: 163, 367, 650

Tunnel restriction code: D/E

Physico-Chemical properties: see section 9

Limited quantities: 5 L

14.7 Maritime transport in bulk

according to IMO instruments:

Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 40-20:

Printing: 05/09/2022 Date of compilation: 26/12/2011 Revised: 28/02/2022 Version: 5 (Replaced 4)

SECTION 14: TRANSPORT INFORMATION (continued)



14.1 UN number or ID number: UN1263
 14.2 UN proper shipping name: PAINT
 14.3 Transport hazard class(es): 3

 Labels: 3

14.4 Packing group: III
14.5 Marine pollutant: No

14.6 Special precautions for user

Special regulations: 223, 955, 163, 367

EmS Codes: F-E, S-E
Physico-Chemical properties: see section 9

Limited quantities: 5 L

Segregation group: Non-applicable

14.7 Maritime transport in bulk according to IMO

Non-applicable

instruments: Transport of dangerous goods by air:

With regard to IATA/ICAO 2022:



14.1 UN number or ID number: UN1263
 14.2 UN proper shipping name: PAINT
 14.3 Transport hazard class(es): 3

 Labels: 3

 14.4 Packing group: III
 14.5 Environmental hazards: No

14.5 Environmental hazards:14.6 Special precautions for user

Physico-Chemical properties: see section 9

14.7 Maritime transport in bulk

according to IMO instruments:

Non-applicable

SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable

Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable

Article 95, REGULATION (EU) No 528/2012: Non-applicable

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

Seveso III:

	Section	Description	Lower-tier requirements	Upper-tier requirements
ĺ	P5c	FLAMMABLE LIQUIDS	5000	50000

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc):

Shall not be used in:

- —ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- -tricks and jokes,
- —games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

Printing: 05/09/2022 Date of compilation: 26/12/2011 Revised: 28/02/2022 Version: 5 (Replaced 4)

SECTION 15: REGULATORY INFORMATION (continued)

The product could be affected by sectorial legislation

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION **

Legislation related to safety data sheets:

The SDS shall be supplied in an official language of the country where the product is placed on the market. This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (COMMISSION REGULATION (EU) 2020/878).

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

COMMISSION REGULATION (EU) 2020/878

CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16):

· Hazard statements

Texts of the legislative phrases mentioned in section 2:

H315: Causes skin irritation.

H318: Causes serious eye damage.

H335: May cause respiratory irritation.

H412: Harmful to aquatic life with long lasting effects.

H373: May cause damage to organs through prolonged or repeated exposure (Oral).

H312+H332: Harmful in contact with skin or if inhaled.

H226: Flammable liquid and vapour.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) No 1272/2008:

Acute Tox. 4: H302 - Harmful if swallowed.

Acute Tox. 4: H312+H332 - Harmful in contact with skin or if inhaled.

Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.

Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways.

Eye Dam. 1: H318 - Causes serious eye damage.

Eye Irrit. 2: H319 - Causes serious eye irritation.

Flam. Liq. 3: H226 - Flammable liquid and vapour.

Skin Irrit. 2: H315 - Causes skin irritation.

STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure (Oral).

STOT SE 3: H335 - May cause respiratory irritation.

STOT SE 3: H336 - May cause drowsiness or dizziness.

Classification procedure:

Skin Irrit. 2: Calculation method

Eye Dam. 1: Calculation method

STOT SE 3: Calculation method

Aquatic Chronic 3: Calculation method

STOT RE 2: Calculation method

Acute Tox. 4: Calculation method

Flam. Liq. 3: Calculation method (2.6.4.3)

Advice related to training:

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

http://echa.europa.eu

http://eur-lex.europa.eu

Abbreviations and acronyms:

^{**} Changes with regards to the previous version

Safety data sheet

This SDS is an English translation of COMMISSION REGULATION (EU) 2020/878, without any country-specific legislation

5450 EPOXY HARDENER

Printing: 05/09/2022 Date of compilation: 26/12/2011 Revised: 28/02/2022 Version: 5 (Replaced 4)

SECTION 16: OTHER INFORMATION ** (continued)

ADR: European agreement concerning the international carriage of dangerous goods by road

IMDG: International maritime dangerous goods code IATA: International Air Transport Association ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5day biochemical oxygen demand

BCF: Bioconcentration factor LD50: Lethal Dose 50 LC50: Lethal Concentration 50

EC50: Effective concentration 50 LogPOW: Octanolwater partition coefficient Koc: Partition coefficient of organic carbon

UFI: unique formula identifier

IARC: International Agency for Research on Cancer

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

^{**} Changes with regards to the previous version