

Safety Data Sheet

according to Regulation (EC) No 1907/2006

BioCast - Hardener

Revision date: 20.12.2023

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

1.1. Product identifier

BioCast - Hardener

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

Use of the substance/mixture

Adhesives, sealants

Uses advised against

Any non-intended use.

1.3. Details of the supplier of the safety data sheet

Company name: Etter Art GmbH
 Street: Gmünder Str .65
 Place: D-73614 Schorndorf
 Telephone: +49 (0) 159 - 06639395
 Responsible Department: shop@etter-art.com
 1.4. Emergency telephone number: +49 (0) 159 - 06639395 (Mo-Fr, 08:00 - 15:00)

Further Information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Acute Tox. 4; H302
 Acute Tox. 4; H332
 Skin Corr. 1B; H314
 Eye Dam. 1; H318
 Skin Sens. 1; H317
 Aquatic Chronic 2; H411

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

benzyl alcohol
 3-aminomethyl-3,5,5-trimethylcyclohexylamine
 Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia
 epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)
 methanesulphonic acid
 Propylidynetrimethanol, propoxylated, reaction products with ammonia

Signal word: Danger

Pictograms:



Hazard statements

H302+H332 Harmful if swallowed or if inhaled.
 H314 Causes severe skin burns and eye damage.
 H317 May cause an allergic skin reaction.

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H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P102 Keep out of reach of children.
 P264 Wash hands thoroughly after handling.
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P302+P352 IF ON SKIN: Wash with plenty of Water and soap.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P501 Dispose of contents/container to local/regional/national/international regulations.

2.3. Other hazards

The substances in the mixture (> 0.1%) do not meet the PBT/vPvB criteria according to REACH, annex XIII. This product does not contain a substance (> 0,1%) that has endocrine disrupting properties with respect to humans as no components meets the criteria. This product does not contain a substance (> 0,1 %) that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name	Quantity
	EC No	Index No
	REACH No	
	Classification (Regulation (EC) No 1272/2008)	
100-51-6	benzyl alcohol	45 - < 50 %
	202-859-9	603-057-00-5
		01-2119492630-38
	Acute Tox. 4, Acute Tox. 4, Eye Irrit. 2; H332 H302 H319	
2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine	20 - < 25 %
	220-666-8	612-067-00-9
		01-2119514687-32
	Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1, Skin Sens. 1A; H302 H314 H318 H317	
9046-10-0	Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia	20 - < 25 %
	618-561-0	
		01-2119557899-12
	Skin Corr. 1C, Eye Dam. 1, Aquatic Chronic 3; H314 H318 H412	
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)	20 - < 25 %
	500-033-5	603-074-00-8
		01-2119456619-26
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H319 H317 H411	
75-75-2	methanesulphonic acid	7 - < 10 %
	200-898-6	607-145-00-4
		01-2119491166-34
	Met. Corr. 1, Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1, STOT SE 3; H290 H312 H302 H314 H318 H335	
39423-51-3	Propylidynetrimethanol, propoxylated, reaction products with ammonia	7 - < 10 %
	500-105-6	
		01-2119556886-20
	Acute Tox. 4, Acute Tox. 4, Eye Dam. 1, Aquatic Chronic 2; H312 H302 H318 H411	

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

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
100-51-6	202-859-9	benzyl alcohol	45 - < 50 %
		inhalation: ATE = 11 mg/l (vapours); inhalation: LC50 = > 4,178 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = 1580 mg/kg	

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2855-13-2	220-666-8	3-aminomethyl-3,5,5-trimethylcyclohexylamine	20 - < 25 %
		inhalation: LC50 = >5,01 mg/l (dusts or mists); oral: ATE 1030 mg/kg Skin Sens. 1A; H317: >= 0,001 - 100	
9046-10-0	618-561-0	Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia	20 - < 25 %
		inhalation: LC50 = [0,74] mg/l (vapours); dermal: LD50 = 2980 mg/kg; oral: LD50 = 2885 mg/kg	
25068-38-6	500-033-5	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)	20 - < 25 %
		dermal: LD50 = >2000 mg/kg; oral: LD50 = >2000 mg/kg Skin Irrit. 2; H315: >= 5 - 100 Eye Irrit. 2; H319: >= 5 - 100	
75-75-2	200-898-6	methanesulphonic acid	7 - < 10 %
		dermal: LD50 = > 1000 mg/kg; oral: LD50 = 1157,5 mg/kg	
39423-51-3	500-105-6	Propylidynetrimethanol, propoxylated, reaction products with ammonia	7 - < 10 %
		dermal: ATE = 1100 mg/kg; oral: ATE = 500 mg/kg	

Further Information

Product does not contain listed SVHC substances > 0.1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH)

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician.

After contact with skin

Gently wash with plenty of soap and water. In case of skin irritation, seek medical treatment.

After contact with eyes

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical advice.

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

See sections 2 and 11

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO₂). Dry extinguishing powder. Alcohol resistant foam. Atomized water.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Can be released in case of fire: Carbon monoxide. Carbon dioxide (CO₂).

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

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Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Safe handling: see section 7

For non-emergency personnel

Wear personal protection equipment (refer to section 8).

For emergency responders

No special measures are necessary.

6.2. Environmental precautions

Discharge into the environment must be avoided.

6.3. Methods and material for containment and cleaning up

For containment

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Treat the recovered material as prescribed in the section on waste disposal.

For cleaning up

Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Handling and storage: Refer to section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Wear suitable protective clothing. See section 8.

Advice on protection against fire and explosion

Usual measures for fire prevention.

Advice on general occupational hygiene

Always close containers tightly after the removal of product. When using do not eat, drink or smoke. Wash hands before breaks and after work.

Further information on handling

General protection and hygiene measures: See section 8.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.

Hints on joint storage

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances. Infectious substances. Food and animal feedingstuff.

Further information on storage conditions

Keep the packing dry and well sealed to prevent contamination and absorption of humidity.

Recommended storage temperature: 20 °C

Protect against: frost. UV-radiation/sunlight. heat. Humidity

7.3. Specific end use(s)

See section 1.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
100-51-6	benzyl alcohol			
Consumer DNEL, long-term		oral	systemic	4 mg/kg bw/day
Worker DNEL, acute		inhalation	systemic	110 mg/m ³
Worker DNEL, long-term		inhalation	systemic	22 mg/m ³
Consumer DNEL, acute		oral	systemic	20 mg/kg bw/day
Consumer DNEL, acute		inhalation	systemic	27 mg/m ³
Consumer DNEL, long-term		inhalation	systemic	5,4 mg/m ³
Worker DNEL, long-term		dermal	systemic	8 mg/kg bw/day
Consumer DNEL, acute		dermal	systemic	20 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	4 mg/kg bw/day
Worker DNEL, acute		dermal	systemic	40 mg/kg bw/day
2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine			
Worker , long-term		inhalation	local	0,073 mg/m ³
Consumer , long-term		oral	systemic	0,526 mg/kg bw/day
9046-10-0	Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia			
Worker DNEL, long-term		inhalation	systemic	1.36 mg/m ³
Worker DNEL, long-term		dermal	systemic	2.5 mg/kg bw/day
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)			
Worker DNEL, acute		dermal	systemic	8,33 mg/kg bw/day
Worker DNEL, long-term		dermal	systemic	8,33 mg/kg bw/day
Worker DNEL, acute		inhalation	systemic	12,25 mg/m ³
Worker DNEL, long-term		inhalation	systemic	12,25 mg/m ³
Consumer DNEL, long-term		dermal	systemic	3,571 mg/kg bw/day
Consumer DNEL, acute		dermal	systemic	3,571 mg/kg bw/day
Consumer DNEL, acute		oral	systemic	0,75 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,75 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	0,75 mg/m ³
Consumer DNEL, acute		inhalation	systemic	0,75 mg/m ³
75-75-2	methanesulphonic acid			
Consumer DNEL, long-term		inhalation	systemic	1,44 mg/m ³
Consumer DNEL, long-term		inhalation	local	0,42 mg/m ³
Consumer DNEL, long-term		dermal	systemic	8,33 mg/kg bw/day

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Consumer DNEL, long-term	oral	systemic	8,33 mg/kg bw/day
Worker DNEL, long-term	inhalation	systemic	6,76 mg/m ³
Worker DNEL, long-term	inhalation	local	0,7 mg/m ³
Worker DNEL, long-term	dermal	systemic	19,44 mg/kg bw/day

PNEC values

CAS No	Substance		Value
100-51-6	benzyl alcohol		
	Freshwater		1 mg/l
	Freshwater (intermittent releases)		2,3 mg/l
	Marine water		0,1 mg/l
	Freshwater sediment		5,27 mg/kg
	Marine sediment		0,527 mg/kg
	Micro-organisms in sewage treatment plants (STP)		39 mg/l
	Soil		0,456 mg/kg
2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine		
	Freshwater		0,06 mg/l
	Marine water		0,006 mg/l
	Freshwater sediment		5,784 mg/kg
	Micro-organisms in sewage treatment plants (STP)		3,18 mg/l
	Soil		1,121 mg/kg
9046-10-0	Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia		
	Freshwater		0.015 mg/l
	Marine water		0.014 mg/l
	Freshwater sediment		0.132 mg/kg
	Marine sediment		0.125 mg/kg
	Secondary poisoning		6.93 mg/kg
	Micro-organisms in sewage treatment plants (STP)		7.5 mg/l
	Soil		0.018 mg/kg
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)		
	Freshwater		0,006 mg/l
	Freshwater (intermittent releases)		0,018 mg/l
	Marine water		0,0006 mg/l
	Freshwater sediment		0,996 mg/kg
	Marine sediment		0,0996 mg/kg
	Secondary poisoning		11 mg/kg
	Micro-organisms in sewage treatment plants (STP)		10 mg/l
	Soil		0,196 mg/kg
75-75-2	methanesulphonic acid		
	Freshwater		0,012 mg/l
	Freshwater (intermittent releases)		0,12 mg/l
	Marine water		0,001 mg/l

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Freshwater sediment	0,044 mg/kg
Marine sediment	0,004 mg/kg
Secondary poisoning	100 mg/l
Micro-organisms in sewage treatment plants (STP)	100 mg/l
Soil	0,002 mg/kg

Additional advice on limit values

To date, no national critical limit values exist.

8.2. Exposure controls



Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Provide adequate ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses; chemical goggles (if splashing is possible). EN 166

Hand protection

Wear suitable gloves.

Suitable material:

FKM (fluororubber). - Thickness of glove material: 0,4 mm

Breakthrough time \geq 8 h

Butyl rubber. - Thickness of glove material: 0,5 mm

Breakthrough time \geq 8 h

CR (polychloroprenes, Chloroprene rubber). - Thickness of glove material: 0,5 mm

Breakthrough time \geq 8 h

NBR (Nitrile rubber). - Thickness of glove material: 0,35 mm

Breakthrough time \geq 8 h

PVC (Polyvinyl chloride). - Thickness of glove material: 0,5 mm

Breakthrough time \geq 8 h

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

The selected protective gloves have to satisfy the specifications of EU Directive EC/2016/425 and the standard EN 374 derived from it.

Check leak tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well.

Skin protection

Suitable protective clothing: Lab apron.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:

-Exceeding exposure limit values

-Insufficient ventilation and aerosol or mist formation

Suitable respiratory protective equipment: particulates filter device (DIN EN 143). type: P1-3

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

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Environmental exposure controls

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid	
Colour:	colourless	
Odour:	characteristic	
Odour threshold:	not determined	
Melting point/freezing point:		not determined
Boiling point or initial boiling point and boiling range:		not determined
Flammability:		not determined
Lower explosion limits:		not determined
Upper explosion limits:		not determined
Flash point:		>100 °C
Auto-ignition temperature:		not determined
Decomposition temperature:		not relevant
pH-Value:		not determined
Viscosity / kinematic: (at 25 °C)		3600-5400 mm ² /s
Water solubility:		insoluble
Solubility in other solvents		not determined
Dissolution rate:		not relevant
Partition coefficient n-octanol/water:		not relevant
Dispersion stability:		not relevant
Vapour pressure:		not determined
Density (at 20 °C):		1,05-1,09 g/cm ³
Bulk density:		not relevant
Relative vapour density:		not determined
Particle characteristics:		not relevant

9.2. Other information

Information with regard to physical hazard classes

Explosive properties		none
Sustaining combustion:	Not sustaining combustion	
Self-ignition temperature		
Solid:		not relevant
Gas:		not determined
Oxidizing properties		none

Other safety characteristics

Evaporation rate:		not determined
Solvent separation test:		not determined
Solvent content:		not determined
Solid content:		not determined
Sublimation point:		not relevant
Softening point:		not relevant
Pour point:		not relevant
Viscosity / dynamic:		not determined
Flow time:		not determined

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SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

Refer to chapter 10.5.

10.4. Conditions to avoid

Protect against: UV-radiation/sunlight. heat.

10.5. Incompatible materials

Materials to avoid: Oxidizing agents, strong. Reducing agents, strong.

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION 11: Toxicological information

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

Toxicokinetics, metabolism and distribution

No data available.

Acute toxicity

Harmful if swallowed.

Harmful if inhaled.

ATEmix calculated

ATE (oral) 1183 mg/kg; ATE (dermal) 5506 mg/kg; ATE (inhalation vapour) 22,00 mg/l; ATE (inhalation dust/mist) 3,001 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
100-51-6	benzyl alcohol				
	oral	LD50 1580 mg/kg	Mouse	REACH Dossier	OECD Guideline 401
	dermal	LD50 > 2000 mg/kg	Rabbit	REACH Dossier	WoE
	inhalation vapour	ATE 11 mg/l			
	inhalation (4 h) dust/mist	LC50 > 4,178 mg/l	Rat	REACH Dossier	OECD Guideline 403
2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine				
	oral	ATE 1030 mg/kg			
	inhalation (4 h) dust/mist	LC50 >5,01 mg/l	Rat.	ECHA Dossier	
9046-10-0	Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia				
	oral	LD50 2885 mg/kg	Rat	ECHA Dossier	
	dermal	LD50 2980 mg/kg	Rabbit.	ECHA Dossier	
	inhalation vapour	LC50 [0,74] mg/l	8 h Rat	ECHA Dossier	
25068-38-6	epoxy resin (number average molecular weight ≤ 700), reaction product: bisphenol-A-(epichlorhydrin)				

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	oral	LD50 mg/kg	>2000	Rat	ECHA Dossier	
	dermal	LD50 mg/kg	>2000	Rabbit.	ECHA Dossier	
75-75-2	methanesulphonic acid					
	oral	LD50 mg/kg	1157,5	Rat	REACH Dossier	OECD Guideline 401
	dermal	LD50 mg/kg	> 1000	Rabbit	REACH Dossier	OECD Guideline 402
39423-51-3	Propylidynetrimethanol, propoxylated, reaction products with ammonia					
	oral	ATE mg/kg	500			
	dermal	ATE mg/kg	1100			

Irritation and corrosivity

Causes severe skin burns and eye damage.

Causes serious eye damage.

Sensitising effects

May cause an allergic skin reaction. (3-aminomethyl-3,5,5-trimethylcyclohexylamine; epoxy resin (number average molecular weight \leq 700), reaction product: bisphenol-A-(epichlorhydrin))

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Specific effects in experiment on an animal

No data available.

11.2. Information on other hazards

Endocrine disrupting properties

This product does not contain a substance ($> 0,1\%$) that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Other information

No data available.

SECTION 12: Ecological information

12.1. Toxicity

Toxic to aquatic life with long lasting effects.

The product has not been tested.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
100-51-6	benzyl alcohol					
	Acute fish toxicity	LC50 mg/l	> 100	96 h	Oryzias latipes	REACH Dossier OECD Guideline 203
	Acute algae toxicity	ErC50	500 mg/l	72 h	Pseudokirchneriella subcapitata	REACH Dossier OECD Guideline 201

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	Acute crustacea toxicity	EC50	230 mg/l	48 h	Daphnia magna	REACH Dossier	OECD Guideline 202
	Fish toxicity	NOEC	48,897	30 d	Fish species	REACH Dossier	QSAR
	Crustacea toxicity	NOEC	51 mg/l	21 d	Daphnia magna	REACH Dossier	OECD Guideline 211
	Acute bacteria toxicity	EC50	1385	3 h	activated sludge, domestic	REACH Dossier	OECD Guideline 209
2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine						
	Acute fish toxicity	LC50	110 mg/l	96 h	Leuciscus idus	ECHA Dossier	
	Acute algae toxicity	ErC50	>50 mg/l	72 h	Desmodesmus subspicatus	ECHA Dossier	
	Acute crustacea toxicity	EC50	23 mg/l	48 h	Daphnia Magna	ECHA Dossier	
	Crustacea toxicity	NOEC	3 mg/l	21 d	Daphnia magna	ECHA Dossier	
9046-10-0	Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia						
	Acute fish toxicity	LC50	>15 mg/l	96 h	Oncorhynchus mykiss	ECHA Dossier	
	Acute algae toxicity	ErC50	141,72	72 h	Skeletonema costatum	ECHA Dossier	
	Acute crustacea toxicity	EC50	418,34	48 h	Acartia tonsa	ECHA Dossier	
	Algae toxicity	NOEC	100 mg/l	3 d	Skeletonema costatum	ECHA Dossier	
	Crustacea toxicity	NOEC	200 mg/l	2 d	Acartia tonsa	ECHA Dossier	
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)						
	Acute fish toxicity	LC50	1,2 mg/l	96 h	Oncorhynchus mykiss	ECHA Dossier	
	Acute algae toxicity	ErC50	9,4 mg/l	72 h	Scenedesmus capricornutum	ECHA Dossier	
	Acute crustacea toxicity	EC50	1,7 mg/l	48 h	Daphnia magna	ECHA Dossier	
	Crustacea toxicity	NOEC	0,3 mg/l	21 d	Daphnia magna	ECHA Dossier	
75-75-2	methanesulphonic acid						
	Acute fish toxicity	LC50	73 mg/l	96 h	Oncorhynchus mykiss	REACH Dossier	OECD Guideline 203
	Acute algae toxicity	ErC50	7,2 - 20	72 h	Pseudokirchneriella subcapitata	REACH Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50	70 mg/l	48 h	Daphnia magna	REACH Dossier	OECD Guideline 202
	Acute bacteria toxicity	EC50	> 1000	0,5 h	activated sludge, domestic	REACH Dossier	OECD Guideline 209

12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name	Method	Value	d	Source
		Evaluation			
100-51-6	benzyl alcohol	OECD 301C / ISO 9408 / EEC 92/69 annex V, C.4-F	96%	14	REACH Dossier
		Easily biodegradable (concerning to the criteria of the OECD)			
2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine	OECD 301A/ ISO 7827/ EEC 92/69/V, C.4-A	8%	28	ECHA Dossier
		Not readily biodegradable (according to OECD criteria)			
9046-10-0	Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia	OECD Guideline 301 B	0%	28	ECHA Dossier

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	Not easily bio-degradable (according to OECD-criteria).			
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)			
	OECD 301F / ISO 9408 / EEC 92/69 annex V, C.4-D	5%	28	ECHA Dossier
	Not easily bio-degradable (according to OECD-criteria).			
75-75-2	methanesulphonic acid			
	OECD 301A/ ISO 7827/ EEC 92/69/V, C.4-A	>90	28	ECHA Dossier
	Readily biodegradable (according to OECD criteria).			

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
100-51-6	benzyl alcohol	1,05
2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine	0,99
9046-10-0	Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia	1,344
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)	3,26
75-75-2	methanesulphonic acid	-2,38

BCF

CAS No	Chemical name	BCF	Species	Source
100-51-6	benzyl alcohol	1,55		http://epa.gov/oppt/

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

12.7. Other adverse effects

No data available.

Further information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Observe in addition any national regulations! Consult the local waste disposal expert about waste disposal.

Non-contaminated packages may be recycled.

According to (EWC) European Waste Catalogue, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Control report for waste code/ waste marking according to (EWC) European Waste Catalogue:

List of Wastes Code - residues/unused products

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200127 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS; separately collected fractions (except 15 01); paint, inks, adhesives and resins containing hazardous substances; hazardous waste

List of Wastes Code - used product

200127 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS; separately collected fractions (except 15 01); paint, inks, adhesives and resins containing hazardous substances; hazardous waste

List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number: UN 2735
14.2. UN proper shipping name: POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia)
14.3. Transport hazard class(es): 8
14.4. Packing group: III
 Hazard label: 8



Classification code: C7
 Special Provisions: 274
 Limited quantity: 5 L
 Excepted quantity: E1
 Transport category: 3
 Hazard No: 80
 Tunnel restriction code: E

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 2735
14.2. UN proper shipping name: POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia)
14.3. Transport hazard class(es): 8
14.4. Packing group: III
 Hazard label: 8



Classification code: C7
 Special Provisions: 274
 Limited quantity: 5 L
 Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number or ID number: UN 2735

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14.2. UN proper shipping name: POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia)
14.3. Transport hazard class(es): 8
14.4. Packing group: III
 Hazard label: 8



Marine pollutant: YES
 Special Provisions: 223 274
 Limited quantity: 5 L
 Excepted quantity: E1
 EmS: F-A, S-B
 Segregation group: 18 - alkalis

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 2735
14.2. UN proper shipping name: POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia)
14.3. Transport hazard class(es): 8
14.4. Packing group: III
 Hazard label: 8



Special Provisions: A3 A803
 Limited quantity Passenger: 1 L
 Passenger LQ: Y841
 Excepted quantity: E1
 IATA-packing instructions - Passenger: 852
 IATA-max. quantity - Passenger: 5 L
 IATA-packing instructions - Cargo: 856
 IATA-max. quantity - Cargo: 60 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes



Danger releasing substance: Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia

14.6. Special precautions for user

refer to chapter 6 - 8

14.7. Maritime transport in bulk according to IMO instruments

not relevant

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

Directive 2010/75/EU on industrial emissions: not relevant

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Directive 2004/42/EC on VOC in paints and varnishes:	not relevant
Information according to Directive 2012/18/EU (SEVESO III):	E2 Hazardous to the Aquatic Environment

Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)
 The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].
 REACH 1907/2006 Appendix XVII, No (mixture): 3

National regulatory information

Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).
Water hazard class (D):	2 - obviously hazardous to water

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

benzyl alcohol
 3-aminomethyl-3,5,5-trimethylcyclohexylamine
 Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia
 epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)
 methanesulphonic acid

SECTION 16: Other information**Changes**

Rev. 1,0; Initial release: 03.01.2024

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 CAS: Chemical Abstracts Service
 CLP: Classification, Labelling and Packaging of substances and mixtures
 DNEL: Derived No Effect Level
 d: day(s)
 EINECS: European INventory of Existing Commercial chemical Substances
 ELINCS: European List of Notified Chemical Substances
 ECHA: European Chemicals Agency
 EWC: European Waste Catalogue
 IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
 ICAO: International Civil Aviation Organization
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
 h: hour
 LOAEL: Lowest observed adverse effect level
 LOAEC: Lowest observed adverse effect concentration
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 NOAEL: No observed adverse effect level
 NOAEC: No observed adverse effect concentration
 NLP: No-Longer Polymers
 N/A: not applicable
 OECD: Organisation for Economic Co-operation and Development

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PNEC: predicted no effect concentration
 PBT: Persistent bioaccumulative toxic
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 REACH: Registration, Evaluation, Authorisation of Chemicals
 SVHC: substance of very high concern
 TRGS: Technische Regeln für Gefahrstoffe
 UN: United Nations
 VOC: Volatile Organic Compounds
 WGK: Water Hazard Class (Germany)

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Acute Tox. 4; H302	Calculation method
Acute Tox. 4; H332	Calculation method
Skin Corr. 1B; H314	Calculation method
Eye Dam. 1; H318	Calculation method
Skin Sens. 1; H317	Calculation method
Aquatic Chronic 2; H411	Calculation method

Relevant H and EUH statements (number and full text)

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H302+H332	Harmful if swallowed or if inhaled.
H312	Harmful in contact with skin.
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.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)