SAFETY DATA SHEET

Safety data sheet according to (EC) No. 1907/2006

The Safety data sheet is prepared by a Danish Consultant Company that has made a toxicological evaluation of all components in the mixture.

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

1.1 Product identifier:

BioCast Hardener

UFI: 55K6-R0D8-6007-5SQY

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

2-Component epoxy product for hobby use (DIY).

1.3 Details of the supplier of the safety data sheet:

cchobby.com
Rasmus Færchs Vej 23 T: +45 96 13 30 10
7500 Holstebro
Denmark
Responsible person for the safety data sheet (e-mail): compliance@cchobby.dk

1.4 Emergency telephone number:

NHS (England or Wales): Dial 111 or 0845 4647 NHS 24 (Scotland): Dial 111
National Poisons Information Centre (Ireland): +353 (1) 809 2166 (8.00 a.m. to 10.00 p.m. 7 days a week)
Healthcare Professionals: +353 (1) 809 2566 (24-hour service)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture:

Irritating liquid, that causes serious eye damage and allergy. Hazardous to the aquatic environment.
CLP (1272/2008): Acute Tox. 4;H302 Skin Corr. 1;H314 Skin Sens.1;H317 Eye Dam. 1;H318 Aquatic Chronic 3;H412

2.2. Label elements:

DANGER

Contains:	Benzyl alcohol, 3-aminomethyl-3,5,5-trimethylcyclohexylamine, Poly(oxypropylen)diamine, methanesulphonic acid
H302:	Harmful if swallowed.
H314:	Causes severe skin burns and eye damage.
H317:	May cause an allergic skin reaction.
H412:	Harmful to aquatic life with long lasting effects.
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/spray.
P280:	Wear protective gloves/eye protection/face protection.
P303+P361+P353+P310:	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water (or shower). Immediately call a POISON CENTER/doctor.
P305+P351+P338+P310:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P501:	Dispose of contents/container according to local regulations.

2.3. Other hazards: None known.

PBT/vPvB: The ingredients are not considered PBT/vPvB according to criteria in Regulation 2023/707.
Endocrine disrupting properties: The substances are not identified as having endocrine disrupting properties in accordance with the criteria set out in Regulation 2023/707.

SECTION 3: Composition/information on ingredients

3.2. Mixtures:

% w/w	Substance name	CAS-no.	EC-no.	Index-no.	REACH reg.no.	Classification
25-<50	Benzyl-alcohol	100-51-6	202-859-9	603-057-00-5	01-2119492630-38	Acute Tox. 4;H302 (ATE = 1200 mg/kg) Acute Tox. 4;H332 (ATE = 5 mg/l/4t.) Skin Sens 1B:H317 Eye Irrit. 2;H319
10-<25	3-aminomethyl-3,5,5-trimethyl-cyclohexylamine	2855-13-2	220-666-8	612-067-00-9	01-2119514687-32	Acute Tox. 4;H302 (ATE = 1030 mg/kg) Skin Corr. 1B;H314 Eye Dam. 1;H318 Skin Sens 1A:H317 (SCL > 0,001%)
10-<25	Poly(oxypro-pylen)diamine	9046-10-0	618-561-0	-	01-2119557899-12	Skin Corr. 1B;H314 Eye Dam. 1;H318 Aquatic Chronic 3;H412
2,5-<10	Trimethylolpro-panpoly(oxy-propylen)triamine	39423-51-3	500-105-6	-	01-2119556886-20	Acute Tox. 4;H302 (ATE = 550 mg/kg) Acute Tox. 4;H312 (ATE = 1100 mg/kg) Eye Dam. 1;H318 Aquatic Chronic 2;H411
2,5-<10	Methanesulphonic acid	75-75-2	200-898-6	607-145-00-4	01-2119491166-34	Met. Corr. 1;H290 Acute Tox. 4; H302 (ATE = 649 mg/kg) Acute Tox. 4;H312 (ATE = 1000 mg/kg) Skin Corr. 1B;H314 Eye Dam. 1, H318 STOT SE 3;H335

Wording of hazard statements - see section 16.

SECTION 4: First-aid measures

4.1. Description of first aid measures:

Inhalation: Remove to fresh air. Keep at rest. In case of discomfort: Seek medical advice.

Skin contact: Remove contaminated clothing and wash skin with water and mild soap. If irritation persists: Seek medical advice.

Eye contact: Immediately flush with water or physiological salt water for at least 15 minutes, holding eye lids open, remember to remove contact lenses, if any. Get medical attention; continue to flush on the way.

Ingestion: Rinse mouth and drink plenty of water. **Do not induce vomiting.** If vomiting occurs, keep the head down to prevent gastric content from entering the lungs. Call an ambulance immediately.

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

Corrosion of the respiratory tract with sore throat, coughing and shortness of breath. Corrosion of the skin and eyes with redness, sores, pain, visual disturbances and risk of loss of vision. Corrosion of the mucous membranes in the mouth and gastrointestinal tract with burning pain, ulcers and nausea. Frequent or repeated inhalation of even small amounts of organic solvents can result in damage of the liver, kidneys and central nervous system (brain damage). Prolonged or repeated skin contact may cause skin sensitization.

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

Show this safety data sheet to a physician or emergency ward.

SECTION 5: Firefighting measures

5.1. Extinguishing media:

Use water spray (never water jet), dry chemical, foam or carbon dioxide.

5.2. Special hazards arising from the substance or mixture:

Do not inhale smoke fumes. At fire, the product may form hazardous decomposition products such as oxides of carbon and nitrogen.

5.3. Advice for fire fighters:

Use breathing apparatus with an independent source of air.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures:
Use personal protective equipment - see section 8. Provide efficient ventilation.
6.2. Environmental precautions:
Do not empty into drains - see section 12. Inform appropriate authorities in accordance with local regulations.
6.3. Methods and material for containment and cleaning up:
Collect and dispose of as chemical waste. Place in a suitable container for disposal. Flush area of spill with plenty of water. Further handling of spillage - see section 13.
6.4. Reference to other sections:
See above.

SECTION 7: Handling and storage

7.1. Precautions for safe handling:
Avoid inhalation of vapours. Provide adequate ventilation. Avoid contact with skin, eyes and clothing. Change contaminated clothes immediately. Wash with water and soap after work. Required access to water and eye wash fountain.
7.2. Conditions for safe storage, including any incompatibilities:
Store in the tightly closed original container at ambient temperature.
Store securely, inaccessible to unauthorized persons, separate from food, foodstuff, medicaments etc.
7.3. Specific end use(s):
See section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters:
Occupational exposure limits (EH40/2005) (2020): None

DNEL:	Exposure	Value	Population	Effects
Benzyl alcohol	Long-term, inhalation	22 mg/m^3	Workers	Systemic
	Short-term, inhalation	110 mg/m^3	Workers	Systemic
	Long-term, dermal	8 mg/kg/d	Workers	Systemic
	Short-term, dermal	40 mg/kg/d	Workers	Systemic
	Long-term, inhalation	5.4 mg/m^3	Consumers	Systemic
	Short-term, inhalation	27 mg/m^3	Consumers	Systemic
	Long-term, dermal	4 mg/kg/d	Consumers	Systemic
	Short-term, dermal	20 mg/ kg/d	Consumers	Systemic
	Long-term, oral	4 mg/kg/d	Consumers	Systemic
	Short-term, oral	20 mg/kg/d	Consumers	Systemic
Poly(oxypro-pylen)diamin	Long-term, dermal	2.5 mg/kg/d	Workers	Systemic
	Long-term, dermal	0.623 mg/cm^2	Workers	Local
	Long-term, oral	0.04 mg/kg/d	Consumers	Systemic
	Long-term, dermal	1.25 mg/kg/d	Consumers	Systemic
	Long-term, dermal	0.311 mg/cm^2	Consumers	Local

SECTION 8: Exposure controls/personal protection (cont.)

PNEC:	Medium	Value
Benzyl alcohol	Fresh water	1 mg/l
	Sea water	0.1 mg/l
	Intermittent release	2.3 mg/l
	Fresh water sediment	5.27 mg/kg
	Sea water sediment	0.527 mg/kg
	Soil	0.456 mg/kg
	Sewage treatment plant	39 mg/l
Poly(oxypro-pylen)diamine	Fresh water	0.015 mg/l
	Sea water	0.0143 mg/l
	Intermittent release	0.15 mg/l
	Fresh water sediment	0.132 mg/kg
	Sea water sediment	0.125 mg/kg
	Soil	0.0176 mg/kg
	Sewage treatment plant	7.5 mg/l
Trimethylolpro-panpoly(oxy-propylen)triamine	Fresh water	0.004 mg/l
	Sea water	0.00044 mg/l
	Intermittent release	0.044 mg/l
	Fresh water sediment	0.0224 mg/kg
	Sea water sediment	0.00224 mg/kg
	Soil	0.002 mg/kg
	Sewage treatment plant	10 mg/l

8.2. Exposure controls:

Appropriate engineering controls: None special.

Personal protective equipment:

Respiratory protection: Normally not necessary. In case of inadequate ventilation: Use an approved mask with gas filter class A2 (Brown - for organic vapours) (EN 140).

Skin protection: Wear protective gloves e.g. Barrier or Silver shield (EN 374). It has not been possible to find data for breakthrough time. In case of spill on the glove, it is recommended to change it.

Eye protection: Wear tight fitting safety goggles (EN ISO 16321-1) when risk of eye contact.

Environmental exposure controls: None particular.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties:

Physical state:	Liquid
Colour:	Transparent
Odour:	Amine
Melting point/freezing point (°C):	Not determined
Boiling point or initial boiling point and boiling range (°C):	Not determined
Flammability (solid, gas):	Not determined
Lower and upper explosion limit (vol-%):	Not determined
Flash point (°C):	Not determined
Auto-ignition temperature (°C):	> 100
Decomposition temperature (°C):	Not determined
pH:	Not determined
Kinematic viscosity:	3600 - 5400 mPa.s @ 25 °C
Solubility:	Insoluble in water
Partition coefficient n-octanol/water (log value):	Not relevant (see section 12)
Vapour pressure:	Not determined
Density and/or relative density(g/cm3, 20°C):	1.05 – 1.09
Relative vapour density:	Not determined
Particle characteristics:	Not determined

9.2. Other information:

None relevant

SECTION 10: Stability and reactivity

10.1. Reactivity:
No available data.
10.2. Chemical stability:
Stable under the recommended storage conditions - see section 7.
10.3. Possibility of hazardous reactions:
None known.
10.4. Conditions to avoid:
Avoid formation of sparks, glows and strong heat.
10.5. Incompatible materials:
Avoid strong acids and bases, oxidants as well as reactive metals.
10.6. Hazardous decomposition products:
When heated to high temperatures (decomposition) toxic gasses are formed: Oxides of carbon and nitrogen.

SECTION 11: Toxicological information

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

Acute toxicity:	Acute toxicity, ingestion – Acute Tox. 4;H302
Skin corrosion/irritation:	Skin corrosion – Skin Corr. 1;H314
Serious eye damage/irritation:	Eye damage: Eye Dam. 1;H318
Respiratory or skin sensitization:	Skin sensitization: Skin Sens. 1;H317
Germ cell mutagenicity:	Based on available data, the classification criteria are not met.
Carcinogenicity:	Based on available data, the classification criteria are not met.
Reproductive toxicity:	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.

Hazard class	Data	Test	Data source
Acute toxicity:			
Inhalation	LC_{50} (rat) = 5 mg/l/4H (**CAS 100-51-6**)	OECD 403	Supplier
Dermal	LD_{50} (rabbit) > 1000 mg/kg ***(CAS 75-75-2)***	OECD 402	Supplier
	LD_{50} (rat) > 1000 mg/kg ***(CAS 39423-51-3)***	OECD 402	Supplier
	LD_{50} (rat) => 2000 mg/kg ***(CAS 100-51-6)***	No info	Supplier
Oral	LD_{50} (rat) = 649 mg/kg ***(CAS 75-75-2)***	OECD 401	Supplier
	LD_{50} (rat) = 550 mg/kg ***(CAS 39423-51-3)***	OECD 425	Supplier
	LD_{50} (rat) = 1030 mg/kg ***(CAS 2855-13-2)***	No info	Supplier
	LD_{50} (rat) = 1620 mg/kg ***(CAS 100-51-6)***	No info	Supplier
Corrosion/irritation:	Corrosion, skin ***(CAS 9046-10-0)***	OECD 404	Supplier
	Strong irritation, skin, rabbit ***(CAS 39423-51-3)***	OECD 404	Supplier
Sensitization:	Skin sensitization, GP ***(CAS 2855-13-2)***	OECD 406	ECHA
	No skin sensitization, GP ***(CAS 100-51-6, 39423-51-3)***	OECD 406	Supplier
CMR:	No CMR- effects	-	-

Information on likely routes of exposure: Inhalation, skin and ingestion.
Symptoms:

Inhalation:	Vapours/aerosols can cause corrosion to the respiratory tract with malaise, headache, drowsiness and dizziness.
Skin:	Corrosion with redness and pain. May cause an allergic reaction.
Eyes:	Causes corrosion with pain, blurred vision and possible permanent eye damage.
Ingestion:	Corrosive for the mucous membranes in mouth, throat and stomach. Symptoms can be nausea, stomach ache, vomiting and headache
Chronic effects:	Frequent contact with skin may cause sensitization. Prolonged or frequent exposure to vapours of volatile organic compounds may result in damage on liver, kidneys, blood or central nervous system (including brain damage).

11.2. Information on other hazards:
None known.

SECTION 12: Ecological information

12.1. Toxicity:

Aquatic	Data	Test (Media)	Data source
Fish	LC_{50} (fish, 96t) > 15 mg/l ***(CAS 9046-10-0)***	OECD 203	Supplier
	LC_{50} (Oncorhynchus mykiss, 96t) > 100 mg/l ***(CAS 39423-51-3)***	OECD 203	Supplier
Daphnia	EC_{50} (Daphnia sp, 48t) = 80 mg/l ***(CAS 9046-10-0)***	OECD 202 (FW)	Supplier
	EC_{50} (Daphnia magna, 48t) = 13 mg/l ***(CAS 39423-51-3)***	OECD 202 (FW)	Supplier
Algae	No relevant data	-	Supplier

12.2. Persistence and degradability:
CAS 9046-10-0 and CAS 39423-51-3 are not expected to be readily biodegradable.
12.3. Bioaccumulative potential:
No significant bioaccumulation expected.
12.4. Mobility in soil:
No available data.
12.5. Results of PBT and vPvB assessment:
No ingredients are PBT/vPvB, according to criteria in Regulation 2023/707.
12.6. Endocrine disrupting properties:
None known.
12.7. Other adverse effects:
None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods:
Disposal should be according to local, state or national legislation.
EWC-code: 08 04 09 (product itself)
08 04 11 (hardened mixture)
15 02 02 (paper towel, inert material etc. contaminated with the product)

SECTION 14: Transport information

14.1. UN number or ID number: 2735.
14.2. UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S.
(3-aminomethyl-3,5,5-trimethylcyclohexylamine, Poly(oxypropylen)diamine)
14.3. Transport hazard class(es): 8.
14.4. Packing group: III.
14.5. Environmental hazards: No
14.6. Special precautions for user: Tunnel code 3 (E).
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:
Must not be used by persons under 18 years of age (94/33/EC).
15.2. Chemical safety assessment:
No CSR.

SECTION 16: Other information

Hazard statements mentioned in section 2 and 3:
H302: Harmful if swallowed.
H312: Harmful in contact with skin.
H314: Causes severe skin burns and eye damage.
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.
Abbreviations:
CMR = Carcinogenicity, mutagenicity and reproductive toxicity.
CSR = Chemical Safety Report
DNEL = Derived No-Effect Level
EC_{50} = Effect Concentration 50%
FW = Fresh Water
LC_{50} = Lethal Concentration 50%
LD_{50} = Lethal Dose 50%
PBT = Persistent, Bioaccumulative, Toxic
PNEC = Predicted No-Effect Concentration
vPvB = very Persistent, very Bioaccumulative
Literature:
ECHA = European Chemicals Agency
Training advice:
No special training is required. However, the user should be well instructed in the execution of his/her task, be familiar with this Safety Data Sheet and have normal training in the use of personal protective equipment.
Changes since the previous edition:
Minor corrections.

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