

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 21.07.2020

Revision: 21.07.2020

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

- **1.1 Product identifier**
- **Trade name:** HADALAN TB 12E, Komp. A
- **Article number:** 40380A
- **UFI:** 6K70-Q0H7-6002-18GD
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Binder for drainage and paving joint mortar, resin component
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Sievert Baustoffe GmbH & Co. KG
Mühlenschweg 6
D-49090 Osnabrück
Tel.: +49 2363 5663-0
- **Further information obtainable from:**
Abteilung: Produktsicherheit
Tel.: +49 2363 5663-0
info-hahne@sievert.de
- **1.4 Emergency telephone number:**
Giftinformationszentrum Nord (GIZ Nord) Universität Göttingen,
Tel.: 0551-19240

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

- | | |
|---------------|---|
| Skin Irrit. 2 | H315 Causes skin irritation. |
| Eye Irrit. 2 | H319 Causes serious eye irritation. |
| Skin Sens. 1 | H317 May cause an allergic skin reaction. |
- **Additional information:** GISCODE: RE 1 (Comp. A + B)

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS07 GHS09

- **Signal word** Warning

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· **Hazard-determining components of labelling:**

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)
phenol, polymer with formaldehyde, glycidyl ether
oxirane, mono[(C12-14-alkyloxy)methyl] derivs

· **Hazard statements**

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

· **Precautionary statements**

P262 Do not get in eyes, on skin, or on clothing.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P360 Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.

· **Additional information:**

Contains epoxy constituents. May produce an allergic reaction.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.2 Chemical characterisation: Mixtures**

· **Description:** epoxy resin formulation

· **Dangerous components:**

CAS: 25068-38-6 NLP: 500-033-5	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)	50-100%
	⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	
CAS: 28064-14-4	phenol, polymer with formaldehyde, glycidyl ether	10-25%
	⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	
CAS: 68609-97-2 EINECS: 271-846-8	oxirane, mono[(C12-14-alkyloxy)methyl] derivs	10-25%
	⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317	

· **Additional information:**

For the wording of the listed hazard phrases refer to section 16.
GHS CODE: RE 1 (Comp. A + B)

SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **General information:** Remove contaminated clothing immediately.

· **After inhalation:**

Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:** Drink plenty of water and provide fresh air. Call for a doctor immediately.

· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

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- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
Use fire extinguishing methods suitable to surrounding conditions.
not applicable, product is not flammable
Use fire fighting measures that suit the environment.
Foam (alcohol resistant), carbon dioxide, powder, spray
- **For safety reasons unsuitable extinguishing agents:** Water jet.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** In case of fire: Use breathing apparatus with independent air supply.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Keep people away, provide adequate ventilation.
- **6.2 Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:** Pick up mechanically.
- **6.4 Reference to other sections**
No dangerous substances are released.
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Store in tightly closed containers in a cool, dry place.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Keep container in a cool, well-ventilated place.
- **Information about storage in one common storage facility:** Store away from foodstuffs, beverages and feed.
- **Further information about storage conditions:**
Keep container tightly sealed.
Protect from frost.
- **Storage class:** VCI: 10
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.

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- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing
 Wash hands before breaks and at the end of work.
 Avoid contact with the eyes and skin.
- **Respiratory protection:** If good ventilation is not required.
- **Protection of hands:**
 Protective gloves
 The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
 Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
 Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
 Nitrile gloves with a thickness of > 0,4 mm wear (breakthrough time: 480 min, see also www.gisbau.de)
- **Material of gloves**
 The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**
 The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**
 Tightly sealed goggles
 Tightly sealed goggles.
- **Body protection:** Protective work clothing.

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Solid
Colour:	According to product specification
Odour:	Characteristic
Odour threshold:	Not determined.
- **pH-value:** Not applicable.
- **Change in condition**

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	>200 °C
- **Flash point:** 120 °C
- **Flammability (solid, gas):** Not determined.
- **Decomposition temperature:** Not determined.
- **Auto-ignition temperature:** Product is not selfigniting.
- **Explosive properties:** Product does not present an explosion hazard.
- **Explosion limits:**

Lower:	Not determined.
Upper:	Not determined.
- **Vapour pressure:** Not applicable.

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· Density at 20 °C:	1.12 g/cm ³
· Relative density	Not determined.
· Vapour density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with water:	Insoluble.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· Solvent content:	
Solids content:	100.0 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**
Exothermic reactions with amines. Processed quickly after adding the hardener, since in the high curing temperatures can be achieved.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**
From highly acidic or alkaline materials as well as oxidizers away to avoid exothermic reactions.
- **10.6 Hazardous decomposition products:**
At high temperatures, carbon monoxide and dioxide, smoke and oxides of nitrogen.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**

25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)

Dermal	LD50	>2,000 mg/kg (rab)
		>2,000 mg/kg (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes skin irritation.
Irritant to skin and mucous membranes
- **Serious eye damage/irritation**
Causes serious eye irritation.
Irritability.
- **Respiratory or skin sensitisation**
May cause an allergic skin reaction.
Contact may cause skin sensitization.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **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.

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- **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.

SECTION 12: Ecological information

· 12.1 Toxicity

Data for Component: Reaction product: bisphenol A-epichlorohydrin resin with medium molecular weight 700 pounds

This product is toxic to aquatic organisms (LC50/EC50/IC50 1-10 mg / L in most sensitive species).

Acute and chronic toxicity to fish

LC50, rainbow trout (*Oncorhynchus mykiss*), semi-static, 96 h: 2 mg / l

Acute toxicity to aquatic invertebrates

EC50 *Daphnia magna* (water flea), static, 48 h, immobilization: 1.8 mg / l

Toxicity to aquatic plants

EC50 *Scenedesmus capricornutum* (freshwater), static, inhibition of

Growth rate, 72 h: 11 mg / l

Toxicity to microorganisms

IC50; bacteria, 18 h: > 42.6 mg / l

Chronic toxicity value for aquatic invertebrates

Daphnia magna (water flea), semi-static, 21 d, number of offspring, NOEC: 0.3 mg / l

Data for Component: Oxirane, mono [(C12-14-alkyloxy) methyl] derivatives

The material is not harmful to aquatic organisms (LC50/EC50/IC50/LL50/EL50 greater than > 100 mg / L in most sensitive species).

Acute and chronic toxicity to fish

LC50, rainbow trout (*Oncorhynchus mykiss*), static, 96 h: > 5,000 mg / l

LC0, bluegill (*Lepomis macrochirus*), static, 96 h: 1.800 mg / l

Toxicity to aquatic plants

EbC50, green alga *Pseudokirchneriella subcapitata* (formerly known as *Selenastrum capricornutum*), growth inhibition (cell density reduction), 72 h: 843 mg / l

NOEC, green alga *Pseudokirchneriella subcapitata* (formerly known as *Selenastrum capricornutum*), growth inhibition (cell density reduction), 72 h: 500 mg / l

Data for Component: Reaction product: bisphenol-F epoxy resin medium molecular weight 700 pounds

For similar / s Material / ien: This product is toxic to aquatic organisms (LC50/EC50/IC50 1-10 mg / L in most sensitive species).

- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.

· **Ecotoxicological effects:**

· **Remark:** Toxic for fish

· **Additional ecological information:**

· **General notes:**

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

· **12.5 Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Other adverse effects** No further relevant information available.

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SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

· **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.
For disposal, local regulations have to be observed. Perform liquid component to a suitable incineration.
Product may be disposed of after curing together with household waste.

· **European waste catalogue**

08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances
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· **Uncleaned packaging:**

· **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· **14.1 UN-Number**

· **ADR, IMDG, IATA**

UN3082

· **14.2 UN proper shipping name**

· **ADR**

3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700), phenol, polymer with formaldehyde, glycidyl ether)

· **IMDG, IATA**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700), phenol, polymer with formaldehyde, glycidyl ether)

· **14.3 Transport hazard class(es)**

· **ADR, IATA**



· **Class**

9 Miscellaneous dangerous substances and articles.

· **Label**

9

· **IMDG**



· **Class**

9 Miscellaneous dangerous substances and articles.

· **Label**

9

· **14.4 Packing group**

· **ADR**

III

· **14.5 Environmental hazards:**

· **Special marking (ADR):**

Symbol (fish and tree)

· **Special marking (IATA):**

Symbol (fish and tree)

· **14.6 Special precautions for user**

Warning: Miscellaneous dangerous substances and articles.

· **Hazard identification number (Kemler code):**

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· Stowage Category	A
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
· Transport category	3
· Tunnel restriction code	E
· UN "Model Regulation":	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (REACTION PRODUCT: BISPHENOL-A-(EPICHLORHYDRIN) EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT = 700), PHENOL, POLYMER WITH FORMALDEHYDE, GLYCIDYL ETHER), 9, III

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:**
- **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **Other regulations, limitations and prohibitive regulations**
For activities involving exposure to uncured epoxy resins and contact via the skin or the respiratory tract regular preventive medical examinations are to be taken.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.
- **Abbreviations and acronyms:**
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

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

- **1.1 Product identifier**
- **Trade name:** HADALAN TB 12E, Komp. B
- **Article number:** 40380B
- **UFI:** QN70-706M-G00J-QM2F
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Binder for drainage and paving joint mortar, hardener component
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Sievert Baustoffe GmbH & Co. KG
Mühlenschweg 6
D-49090 Osnabrück
Tel.: +49 2363 5663-0
- **Further information obtainable from:**
Abteilung: Produktsicherheit
Tel.: +49 2363 5663-0
info-hahne@sievert.de
- **1.4 Emergency telephone number:**
Giftinformationszentrum Nord (GIZ Nord) Universität Göttingen,
Tel.: 0551-19240

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS05 GHS07

- **Signal word** Danger
- **Hazard-determining components of labelling:**
3-aminomethyl-3,5,5-trimethylcyclohexylamine
m-phenylenebis(methylamine)

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Fettalkoholpolyglykolether

· Hazard statements

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

· Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P262 Do not get in eyes, on skin, or on clothing.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

· 2.3 Other hazards**· Results of PBT and vPvB assessment****· PBT:** Not applicable.**· vPvB:** Not applicable.**SECTION 3: Composition/information on ingredients****· 3.2 Chemical characterisation: Mixtures****· Description:** Epoxy resin hardener, formulation based on aliphatic polyamines**· Dangerous components:**

CAS: 100-51-6	Benzyl alcohol	10-25%
EINECS: 202-859-9	⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	
CAS: 2579-20-6	1,3-Cyclohexanedimethanamine	2.5-10%
EINECS: 219-941-5	⚠ Acute Tox. 4, H302	
CAS: 2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine	2.5-10%
EINECS: 220-666-8	⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412	
CAS: 10563-29-8	N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine	2.5-10%
EINECS: 234-148-4	⚠ Acute Tox. 4, H302; Acute Tox. 4, H312	
CAS: 1477-55-0	m-phenylenebis(methylamine)	<2.5%
EINECS: 216-032-5	⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	
CAS: 169107-21-5	Fettalkoholpolyglykolether	<2.5%
	⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302	

· Additional information:

For the wording of the listed hazard phrases refer to section 16.

GHS CODE: RE 1 (Comp. A + B)

SECTION 4: First aid measures**· 4.1 Description of first aid measures****· General information:** Immediately remove any clothing soiled by the product.**· After inhalation:**

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

Immediately rinse with water.

· After eye contact:

Rinse opened eye for several minutes under running water. Then consult a doctor.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing: Drink plenty of water and provide fresh air. Call for a doctor immediately.

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- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
Use fire extinguishing methods suitable to surrounding conditions.
not applicable, product is not flammable
Use fire fighting measures that suit the environment.
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol-resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet.
- **5.2 Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
During heating or in case of fire, toxic gases is possible.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Mount respiratory protective device.
Put on breathing apparatus.
- **Additional information**
Fire residues and contaminated firefighting water must be disposed of in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralising agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Clean the affected area carefully.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in original container only.
Provide floor with drain.
- **Information about storage in one common storage facility:** Keep away from foodstuffs.
- **Further information about storage conditions:** Keep container tightly sealed.

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- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

100-51-6 Benzyl alcohol (10-25%)	
WEL	see Section IIb
2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine (2.5-10%)	
WEL	vgl. Abschn. IIb
1477-55-0 1,3-benzenedimethanamine (<2.5%)	
WEL	as vapor and aerosol; see section IV

- **DNELs**

100-51-6 benzyl alcohol

Dermal DNEL - worker 9.5 mg / kg / bw / d (long-term)

Inhalative DNEL - worker 22 mg / m³ (long-term)

2855-13-2 3-aminomethyl-3,5,5-trimethyl-cyclohexylamine

Inhalative DNEL - worker 20.1 mg / m³

1477-55-0 1,3-benzenedimethanamine

Dermal DNEL - worker 0.33 mg / kg / bw / d

Inhalative DNEL - worker 1.2 mg / m³

- **PNECs**

100-51-6 benzyl alcohol

PNEC (predicted no effect concentration) 1 mg / l (freshwater)

0.1 mg / l (seawater)

2855-13-2 3-aminomethyl-3,5,5-trimethyl-cyclohexylamine

PNEC (predicted no effect concentration) 0.06 mg / l (freshwater)

0.006 mg / l (seawater)

1477-55-0 1,3-benzenedimethanamine

PNEC (predicted no effect concentration) 0.094 mg / l (freshwater)

0.0094 mg / l (seawater)

- **Additional information:** The lists valid during the making were used as basis.

- **8.2 Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

- **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

In case of insufficient ventilation, wear respiratory protection.

- **Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Only use chemical-protective gloves with CE-labeling of category III.

Before any re-use of the glove leak tightness.

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· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Protective gloves made of nitrile rubber or fluorine rubber (Viton)

Recommended thickness of the material: ≥ 0.5 mm.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Tightly sealed goggles

· **Body protection:** Protective work clothing.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**· **General Information**· **Appearance:**

· Form:	Fluid
· Colour:	According to product specification
· Odour:	Characteristic
· Odour threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· **Melting point/freezing point:** Undetermined.

· **Initial boiling point and boiling range:** Undetermined.

· **Flash point:** >100 °C

· **Flammability (solid, gas):** Not applicable.

· **Ignition temperature:** 380 °C

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Product is not selfigniting.

· **Explosive properties:** Product does not present an explosion hazard.

· **Explosion limits:**

· **Lower:** Not determined.

· **Upper:** Not determined.

· **Vapour pressure at 20 °C:** 23 hPa

· **Density at 20 °C:** 1.036 g/cm³

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with water:**

Fully miscible.

· **Partition coefficient: n-octanol/water:** Not determined.

· **Viscosity:**

· **Dynamic at 20 °C:** 165 mPas

· **Kinematic:** Not determined.

· **Solvent content:**

· **Solids content:** 78.0 %

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· **9.2 Other information**

No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:****100-51-6 Benzyl alcohol**

Oral	LD50	1,230 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rbt)
Inhalative	LC50/4 h	4,178 mg/l (rat)

2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Oral	LD50	1,030 mg/kg (rat)
Dermal	LD50	1,840 mg/kg (rab)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes severe skin burns and eye damage.
- **Serious eye damage/irritation**
Causes serious eye damage.
- **Respiratory or skin sensitisation**
May cause an allergic skin reaction.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **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.

SECTION 12: Ecological information

- **12.1 Toxicity**
Aquatic toxicity
benzyl alcohol 100-51-6
Toxicity to algae 79 (3h) mg / l (Sc.quadricauda)
640 (96h) mg / l (algae Scenedesmus sp.)
Toxicity to bacteria 658 (16h) mg / l (Pseudomonas putida)
71.42 (30 min) mg / l (Photobacterium phosphoreum)
400 (30min) mg / l (Pseudomonas putida)
Daphnia 400 (24) mg / l (Daphnia magna (water flea))
Toxicity to fish 645 (48h) mg / l (Golden orfe)
10 (96h) mg / l (Lepomis macrochirus)
2855-13-2 3-aminomethyl-3,5,5-trimethyl-cyclohexylamine

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EC50/72h algae toxicity: 37 mg / l (*Scenedesmus subspicatus*)

EC 88/302

Toxicity to bacteria EC10/18h 1120 mg / l (*Pseudomonas putida*)

Bringmann and Kühn, Z. Water Wastewater Forsch 10, 87-98 (1977)

Daphnia EC50/28h: 23 mg / l (*Daphnia magna* (water flea))

OECD TG 202

EC50/504h: 3 mg / l OECD 202 part 2

LC50/96h fish toxicity: 110 mg / l (*Brachydanio rerio*)

EC 84/449

10563-29-8 N'-(3-aminopropyl)-N, N-dimethylpropane-1,3-diamine

Daphnia (48h) 9.2 mg / l (*Daphnia magna* (water flea))

OECD guideline 2029016-45-9 nonylphenolpolyglycolether

Bacterial toxicity > 1000 mg / l (Gärröhrchentest)

Toxicity to fish (96h) 1 - 10 mg / l (Guppy)

(96h) 1 - 10 mg / l (zebra fish)

9016-45-9 nonylphenol polyglycol ether with 30 EO (pasty)

Toxicity to fish (24h) > 500 mg / l (Guppy)

· **Aquatic toxicity:** No further relevant information available.· **12.2 Persistence and degradability** No further relevant information available.· **12.3 Bioaccumulative potential** No further relevant information available.· **12.4 Mobility in soil** No further relevant information available.· **Additional ecological information:**· **General notes:**

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Danger to drinking water if even small quantities leak into the ground.

· **12.5 Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.· **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**· **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

For disposal, local regulations have to be observed. Perform liquid component to a suitable incineration.

Product may be disposed of after curing together with household waste.

· **European waste catalogue**

08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances
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· **Uncleaned packaging:**· **Recommendation:** Disposal must be made according to official regulations.· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

· **14.1 UN-Number**· **ADR, IMDG, IATA**

UN2735

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· 14.2 UN proper shipping name	2735 AMINES, LIQUID, CORROSIVE, N.O.S.
· ADR	(I S O P H O R O N E D I A M I N E , 1 , 3 - Cyclohexanedimethanamine)
· IMDG, IATA	AMINES, LIQUID, CORROSIVE, N.O.S. (I S O P H O R O N E D I A M I N E , 1 , 3 - Cyclohexanedimethanamine)
· 14.3 Transport hazard class(es)	
· ADR, IMDG, IATA	
	
· Class	8 Corrosive substances.
· Label	8
· 14.4 Packing group	
· ADR, IMDG, IATA	III
· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	Warning: Corrosive substances.
· Hazard identification number (Kemler code):	80
· EMS Number:	F-A,S-B
· Segregation groups	Alkalis
· Stowage Category	A
· Segregation Code	SG35 Stow "separated from" SGG1-acids
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Transport category	3
· Tunnel restriction code	E
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (I S O P H O R O N E D I A M I N E , 1 , 3 - CYCLOHEXANEDIMETHANAMINE), 8, III

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

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- **National regulations:**
- **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **Other regulations, limitations and prohibitive regulations**
 BG code:
 Practical guidelines for the handling of epoxy resins
 (issued by the professional association in the construction industry)
 www.bgbau.de or www.gisbau.de

 Handle epoxy systems safely
 (published by Plastics Europe)
 www.plasticseurope.org

 BGR 227 "Epoxy Resins"
 (issued by the Federation of Trade Associations)
 www.dguv.de
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
 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.
 H332 Harmful if inhaled.
 H412 Harmful to aquatic life with long lasting effects.
- **Abbreviations and acronyms:**
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 ICAO: International Civil Aviation Organisation
 ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 DNEL: Derived No-Effect Level (REACH)
 PNEC: Predicted No-Effect Concentration (REACH)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 Acute Tox. 4: Acute toxicity - oral – Category 4
 Skin Corr. 1B: Skin corrosion/irritation – Category 1B
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1
 Skin Sens. 1: Skin sensitisation – Category 1
 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

GB