

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:** 50346 A
- **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** Twin binder for plaster base sand and drainage screed, hardener
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Heinrich Hahne GmbH & Co. KG
Heinrich-Hahne-Weg 11
45711 Datteln Tel.: 02363/5663-0
- **Further information obtainable from:**
Abteilung: Produktsicherheit
Tel.: 02363 5663-0
E-Mail: info@hahne-bautenschutz.de
- **1.4 Emergency telephone number:**
Gif tinformationszentrum 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.

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

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

· **Hazard description:** C Corrosive

- **Information concerning particular hazards for human and environment:**

R 22 Harmful if swallowed.

R 34 Causes burns.

R 43 May cause sensitisation by skin contact.

R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- **2.2 Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

(Contd. on page 2)

Trade name: HADALAN TB 12E, Komp. B

(Contd. of page 1)

· **Hazard pictograms**



GHS05 GHS07

· **Signal word** *Danger*

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

3-aminomethyl-3,5,5-trimethylcyclohexylamine
m-phenylenebis(methylamine)

· **Hazard statements**

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

· **Precautionary statements**

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

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

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

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/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 EINECS: 202-859-9	Benzyl alcohol ☒ Xn R20/22 ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332	10-25%
CAS: 2855-13-2 EINECS: 220-666-8	3-aminomethyl-3,5,5-trimethylcyclohexylamine ☒ C R34; ☒ Xn R21/22; ☒ Xi R43 R52/53 ⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412	2.5-10%
CAS: 2579-20-6 EINECS: 219-941-5	1,3-Cyclohexanedimethanamine ☒ Xn R22 ⚠ Acute Tox. 4, H302	2.5-10%
CAS: 10563-29-8 EINECS: 234-148-4	N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine ☒ Xn R21 ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312	2.5-10%

(Contd. on page 3)

Trade name: HADALAN TB 12E, Komp. B

		(Contd. of page 2)
CAS: 9016-45-9	Nonylphenolpolyglykoether  Xi R36/38;  N R51/53  Aquatic Chronic 2, H411;  Skin Irrit. 2, H315;  Eye Irrit. 2, H319	< 2.5%
CAS: 1477-55-0 EINECS: 216-032-5	m-phenylenebis(methylamine)  C R34;  Xn R22  Skin Corr. 1B, H314;  Acute Tox. 4, H302;  Acute Tox. 4, H312;  Acute Tox. 4, H332	< 2.5%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

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.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Call for a doctor immediately.
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.
- **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 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, toxic gases is possible.
- **5.3 Advice for firefighters**
- **Protective equipment:** 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**
Wear protective equipment. Keep unprotected persons away.
- **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:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Clean the affected area carefully.

(Contd. on page 4)

Trade name: HADALAN TB 12E, Komp. B

(Contd. of page 3)

- **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.
- **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:**
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.
- **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 see section IIb

- **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 and skin.

- **Respiratory protection:** 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.

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.

- **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.

(Contd. on page 5)

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Trade name: **HADALAN TB 12E, Komp. B**

(Contd. of page 4)

- **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:	yellowish
· Odour:	amine-like

· Change in condition

· Melting point/Melting range:	nicht bestimmt
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· Flash point:	> 100 °C
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· Flammability (solid, gaseous):	Not applicable.
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· Ignition temperature:	380 °C
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· Self-igniting:	Product is not selfigniting.
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· Danger of explosion:	Product does not present an explosion hazard.
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· Vapour pressure at 20 °C:	23 hPa
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· Density at 20 °C:	1.036 g/cm ³
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· Solubility in / Miscibility with water:	Fully miscible.
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· Partition coefficient (n-octanol/water):	Not determined.
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· Viscosity:

· Dynamic at 20 °C:	165 mPas
· Kinematic:	Not determined.

· Solvent content:

· Organic solvents:	0.0 %
· Water:	18 %
· VOC (EU)	0 %

· Solids content:	78.0 %
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· 9.2 Other information	No further relevant information available.
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SECTION 10: Stability and reactivity

· 10.1 Reactivity

· 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.

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(Contd. on page 6)

Trade name: HADALAN TB 12E, Komp. B

(Contd. of page 5)

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**

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

100-51-6 Benzyl alcohol

Oral	LD50	1230 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rbt)
Inhalative	LC50/4 h	4178 mg/l (rat)

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

Oral	LD50	1030 mg/kg (rat)
Dermal	LD50	1840 mg/kg (rab)

2579-20-6 1,3-Cyclohexanedimethanamine

Oral	LD50	880 mg/kg (rat)
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10563-29-8 N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine

Oral	LD50	1670 mg/kg (rat)
Dermal	LD50	1310 mg/kg (rat)

9016-45-9 Nonylphenolpolyglykolether

Oral	LD50	500-2000 mg/kg (rat)
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- **Primary irritant effect:**

- **on the skin:** Caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitisation:** Sensitisation possible through skin contact.

- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

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

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

(Contd. on page 7)

Trade name: HADALAN TB 12E, Komp. B

(Contd. of page 6)

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 nonylphenolpolyglycoether

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.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**
- Must not reach sewage water or drainage ditch undiluted or unneutralised.
- Harmful to aquatic organisms
- Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
- Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **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**
- 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 dangerous 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

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|---|--|
| <ul style="list-style-type: none"> · 14.1 UN-Number · ADR, IMDG, IATA | UN2735 |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR | 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (ISOPHORONEDIAMINE, 1,3-Cyclohexanedimethanamine) |
| <ul style="list-style-type: none"> · IMDG, IATA | AMINES, LIQUID, CORROSIVE, N.O.S. (ISOPHORONEDIAMINE, 1,3-Cyclohexanedimethanamine) |

(Contd. on page 8)

Trade name: HADALAN TB 12E, Komp. B

(Contd. of page 7)

· **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.
· **Danger code (Kemler):** 80
· **EMS Number:** F-A,S-B
· **Segregation groups** Alkalis

· **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

· **Transport/Additional information:**

· **ADR**

· **Limited quantities (LQ)** 5L
· **Transport category** 3
· **Tunnel restriction code** E

· **UN "Model Regulation":**

UN2735, 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**

· **National regulations:**

· **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly 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.

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(Contd. on page 9)

Trade name: HADALAN TB 12E, Komp. B

(Contd. of page 8)

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.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.
- R20/22 Harmful by inhalation and if swallowed.
- R21 Harmful in contact with skin.
- R21/22 Harmful in contact with skin and if swallowed.
- R22 Harmful if swallowed.
- R34 Causes burns.
- R36/38 Irritating to eyes and skin.
- R43 May cause sensitisation by skin contact.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· **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)
- VOC: Volatile Organic Compounds (USA, EU)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- Acute Tox. 4: Acute toxicity, Hazard Category 4
- Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
- Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
- Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
- Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
- Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
- Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2
- Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3