

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

- **Product identifier**
- **Trade name:** HADALAN VS 12E, Komp. B
- **Article number:** 50044 B
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the preparation**
Solvent-free, two component epoxy resin floor coating with good resistance to mechanical and chemical loads
- **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
Email: info@hahne-bautenschutz.de
- **Emergency telephone number:**
Gif tinformat ionszentrum Nord (GIZ Nord) Universität Göttingen,
Tel.: 0551-19240

2 Hazards identification

- **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.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.
Acute Tox. 4 H312 Harmful in contact with skin.
Acute Tox. 4 H332 Harmful if inhaled.
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 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R 35 Causes severe 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.

(Contd. on page 2)

Trade name: HADALAN VS 12E, Komp. B

(Contd. of page 1)

· **Label elements**

· **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· **Code letter and hazard designation of product:**



C Corrosive

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

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

· **Risk phrases:**

20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
35 Causes severe burns.
43 May cause sensitisation by skin contact.
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· **Safety phrases:**

23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
24/25 Avoid contact with skin and eyes.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
27 Take off immediately all contaminated clothing.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.
· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**





· **Description:** Amine-containing curing agents for epoxy resins.

· **Dangerous components:**

CAS: 100-51-6 EINECS: 202-859-9	Benzyl alcohol ☒ Xn R20/22; ☒ Xi R43 ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332	>25- <50%
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	>25- <50%

(Contd. on page 3)

Trade name: HADALAN VS 12E, Komp. B

CAS: 1477-55-0	m-phenylenebis(methylamine)	(Contd. of page 2)
EINECS: 216-032-5	 C R34;  Xn R22  Skin Corr. 1B, H314;  Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	>10- <25%

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

4 First aid measures

· **Description of first aid measures**

· **General information:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **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. Then consult a doctor.

· **After swallowing:**

Call for a doctor immediately.

Drink plenty of water and provide fresh air. Call for a doctor immediately.

· **Information for doctor:**

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

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Firefighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

Use fire extinguishing methods suitable to surrounding conditions.

Foam (alcohol resistant), carbon dioxide, powder, spray.

· **For safety reasons unsuitable extinguishing agents:** Water jet.

· **Special hazards arising from the substance or mixture** No further relevant information available.

· **Advice for firefighters**

· **Protective equipment:** Mount respiratory protective device.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

· **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.

· **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

(Contd. on page 4)

Trade name: HADALAN VS 12E, Komp. B

See Section 13 for disposal information.

(Contd. of page 3)

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in original container.
- **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: 8
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

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

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

100-51-6 Benzyl alcohol (25-50%)

WEL | see section IIb

2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine (25-50%)

WEL | see section IIb

1477-55-0 m-phenylenebis(methylamine) (10-25%)

WEL | see section IV

- **Additional information:** The lists valid during the making were used as basis.
- **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. In inadequately ventilated places and during spray processing, wear respiratory protection. A/P2 filter.
- **Protection of hands:**
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
- **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.

(Contd. on page 5)

Printing date 22.07.2013

Revision: 22.07.2013

Trade name: HADALAN VS 12E, Komp. B

(Contd. of page 4)

Protective gloves made of nitrile with a layer thickness of at least 0.4 mm reagen (breakthrough time > 480 min see also www.gisbau.de).

· **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:** Long sleeved protective clothing.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	liquid
Colour:	yellowish
Odour:	by amine.

· **pH-value at 20 °C:** 8.5 - 11

· **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 205 °C

· **Flash point:** 101 °C

· **Ignition temperature:** 435 °C

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Vapour pressure at 50 °C:** <5 hPa

· **Density:** Not determined.

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

Not miscible or difficult to mix.

· **Solvent content:**

Organic solvents: 0.0 %

· **Other information** No further relevant information available.

10 Stability and reactivity

· **Reactivity**

· **Chemical stability**

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **Possibility of hazardous reactions** No dangerous reactions known.

· **Conditions to avoid** No further relevant information available.

· **Incompatible materials:**

Prior to strongly acidic and alkaline materials as well as oxidants in order to avoid exothermic reactions.

· **Hazardous decomposition products:** Possible at > 60 °C elimination of acrylonitrile.

GB

(Contd. on page 6)

Trade name: HADALAN VS 12E, Komp. B

(Contd. of page 5)

11 Toxicological information

- **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)

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

Oral	LD50	1030 mg/kg (rat)
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1477-55-0 m-phenylenebis(methylamine)

Oral	LD50	1040 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rab)
Inhalative	LC50/4 h	2.4 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** Caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitization:** Sensitization 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.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Harmful to 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.
Must not reach sewage water or drainage ditch undiluted or unneutralized.
Danger to drinking water if even small quantities leak into the ground.
Harmful to aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

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(Contd. on page 7)

Printing date 22.07.2013

Revision: 22.07.2013

Trade name: HADALAN VS 12E, Komp. B

(Contd. of page 6)

13 Disposal considerations


- **Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- **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.

14 Transport information

- | | |
|---|--|
| · UN-Number | |
| · ADR, IMDG, IATA | 2735 |
| · UN proper shipping name | |
| · ADR | 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine), ISOPHORONEDIAMINE) |
| · IMDG, IATA | AMINES, LIQUID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine)) |
| · Transport hazard class(es) | |
| · ADR, IMDG, IATA | |
|  | |
| · Class | 8 Corrosive substances. |
| · Label | 8 |
| · Packing group | |
| · ADR, IMDG, IATA | III |
| · Environmental hazards: | |
| · Marine pollutant: | No |
| · Special precautions for user | Warning: Corrosive substances. |
| · Danger code (Kemler): | 80 |
| · EMS Number: | F-A,S-B |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | |
| · ADR | |
| · Limited quantities (LQ) | LQ7 |
| · Transport category | 3 |
| · Tunnel restriction code | E |
| · UN "Model Regulation": | UN2735, AMINES, LIQUID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine), ISOPHORONEDIAMINE), 8, III |

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(Contd. on page 8)

Trade name: HADALAN VS 12E, Komp. B

(Contd. of page 7)

15 Regulatory information

- **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 checkups are causing.
- **VOC (EU)**
The product is subject RL 2004/42/EG.EU-Grenzwert this product is used in the manufacture condition: Cat A / j max. 500 g / l (2010). The product contains used in the finished state: max. 150 g / l VOC.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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.
H332 Harmful if inhaled.
H412 Harmful to aquatic life with long lasting effects.
- **R20/22 Harmful by inhalation and if swallowed.**
- **R21/22 Harmful in contact with skin and if swallowed.**
- **R22 Harmful if swallowed.**
- **R34 Causes burns.**
- **R43 May cause sensitisation by skin contact.**
- **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)
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)
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 Harmonized System of Classification and Labelling of Chemicals
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent