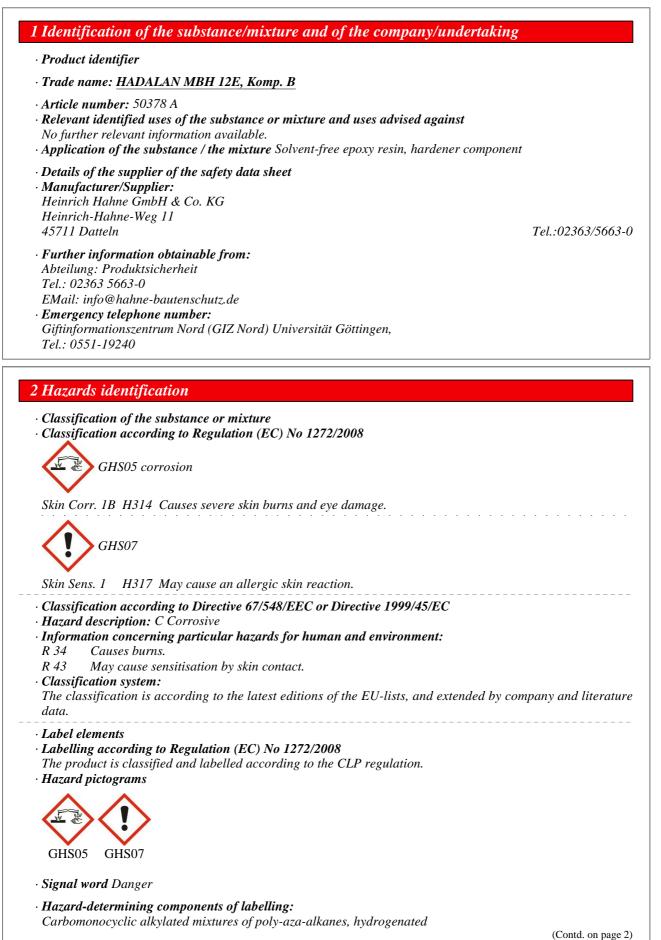


Printing date 18.08.2014

Revision: 18.03.2014



- GB

Printing date 18.08.2014



Revision: 18.03.2014

Trade name: HADALAN MBH 12E, Komp. B

| TT 1 / / | |
|-----------------------|--|
| Hazard statemen | ts |
| H314 Causes sev | ere skin burns and eye damage. |
| H317 May cause | an allergic skin reaction. |
| Precautionary st | atements |
| 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. |
| <i>P303+P361+P3</i> . | 53 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse ski with water/shower. |
| <i>P305+P351+P3</i> . | 38 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, present and easy to do. Continue rinsing. |
| P332+P313 | If skin irritation occurs: Get medical advice/attention. |
| Other hazards | |
| Results of PBT a | nd vPvB assessment |
| PBT: Not applica | |
| vPvB: Not applic | |

3 Composition/information on ingredients

· Chemical characterization: Mixtures

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

· Dangerous components:

1173092-74-4Carbomonocyclic alkylated mixtures of poly-aza-alkanes, hydrogenated> 25%C R34; Xi R43Skin Corr. 1B, H314; Skin Sens. 1, H317

· Additional information:

For the wording of the listed risk phrases refer to section 16. GISCODE: RE 1 (resin + hardener)

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.

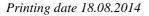
• After inhalation:

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.
- 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.
- 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.

(Contd. on page 3)

GB



hahne Bautenschutz Systeme

Revision: 18.03.2014

Trade name: HADALAN MBH 12E, Komp. B

(Contd. of page 2)

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 Use fire fighting measures that suit the environment.
- · Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away.
- Environmental precautions: 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. See Section 13 for disposal information.

7 Handling and storage

· Handling:

- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols. Store in a cool, dry place.
- · 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

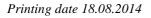
• Additional information about design of technical facilities: No further data; see item 7.

· Control parameters

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

(Contd. on page 4)

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Revision: 18.03.2014

hahne

Bautenschutz Systeme

Trade name: HADALAN MBH 12E, Komp. B

| | (Contd. of page 3) |
|--|--|
| Exposure controls | |
| Personal protective equipment: | |
| General protective and hygienic measures: | |
| Keep away from foodstuffs, beverages and fee | d. |
| Immediately remove all soiled and contamina | |
| Wash hands before breaks and at the end of w | • |
| Avoid contact with the eyes and skin. | |
| Respiratory protection: | |
| | equately ventilated places and during spray processing, wear |
| Protection of hands: | |
| Protective gloves | |
| The glove material has to be impermeable and | d resistant to the product/ the substance/ the preparation. |
| | eration of the penetration times, rates of diffusion and the |
| Material of gloves | |
| The selection of the suitable gloves does not a and varies from manufacturer to manufactu. | only depend on the material, but also on further marks of quality rer. As the product is a preparation of several substances, the lculated in advance and has therefore to be checked prior to the |
| | thickness of at least 0.4 mm reagen (Durchdringungszeigt> 480 |
| Penetration time of glove material | |
| | out by the manufacturer of the protective gloves and has to be |
| <i>Eye protection: Tightly sealed goggles</i> | |
| Body protection: Long sleeved protective clot | hina |

| Information on basic physical and | chemical properties | |
|---|---|--|
| General Information | | |
| Appearance: Form: | fluently | |
| Colour: | yellowish | |
| · Odour: | by amine. | |
| Odour threshold: | Not determined. | |
| pH-value: | Not determined. | |
| Change in condition Melting point/Melting range: Boiling point/Boiling range: | Undetermined. 201 °C | |
| Flash point: | 101 °C | |
| Flammability (solid, gaseous): | Not applicable. | |
| Ignition temperature: | | |
| Decomposition temperature: | Not determined. | |
| Self-igniting: | Product is not selfigniting. | |
| Danger of explosion: | Product does not present an explosion hazard. | |
| Vapour pressure at 21 °C: | <0.01 mmHg | |
| Density at 20 °C: | 1.00 g/cm ³ | |



Printing date 18.08.2014

Revision: 18.03.2014

Trade name: HADALAN MBH 12E, Komp. B

| | | (Contd. of page 4 |
|----------------------------------|--|-------------------|
| Relative density | Not determined. | |
| Vapour density | Not determined. | |
| Evaporation rate | Not determined. | |
| Solubility in / Miscibility with | | |
| water: | miscible | |
| Partition coefficient (n-octand | ol/water): Not determined. | |
| Viscosity: | | |
| Dynamic at 25 •C: | 400 mPas | |
| Kinematic: | Not determined. | |
| 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:* When heated formation of carbon monoxide, carbon dioxide, nitrogen oxides, ammonia, aldehyde, inflammatory hydrocarbon fragments possible.

11 Toxicological information

- · Information on toxicological effects
- Acute toxicity:
- 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:

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:
- $\cdot \textit{Bioaccumulative potential No further relevant information available}.$
- \cdot **Mobility in soil** No further relevant information available.

(Contd. on page 6)

GB



Revision: 18.03.2014

(Contd. of page 5)

Trade name: HADALAN MBH 12E, Komp. B

· Additional ecological information:

· General notes:

Printing date 18.08.2014

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

- · Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- · vPvB: Not applicable.
- $\cdot \textit{Other adverse effects} \textit{ No further relevant information available}.$

13 Disposal considerations

· Waste treatment methods

· Recommendation

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

 \cdot European waste catalogue

08 01 11* waste paint and varnish containing organic solvents or other dangerous substances

· Uncleaned packaging:

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

| Transport information | |
|--|---|
| UN-Number ADR, IMDG, IATA | UN2735 |
| UN proper shipping name ADR IMDG, IATA | 2735 AMINES, LIQUID, CORROSIVE, N.O.S., mixture AMINES, LIQUID, CORROSIVE, N.O.S., mixture |
| Transport hazard class(es) | |
| ADR, IMDG, IATA | |
| <u></u> | |
| Class Label | 8 Corrosive substances. 8 |
| | 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 MARPOL73/78 and the IBC Code | II of Not applicable. |
| Transport/Additional information: | |
| ADR Limited quantities (LQ) | 5L |

- GB



Printing date 18.08.2014

Revision: 18.03.2014

Trade name: HADALAN MBH 12E, Komp. B

| | (Contd. of page 6) |
|---|---|
| • Transport category • Tunnel restriction code | 3 E |
| · UN "Model Regulation": | UN2735, AMINES, LIQUID, CORROSIVE, N.O.S., mixture, 8, III |

15 Regulatory information

- · 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.
- \cdot 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.

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: 0 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

H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. R34 Causes burns. R43 May cause sensitisation by skin contact. 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 Laternetical Civil A beiding Concernant (Letternetical Concerning the International Concerning the Concerning the International Concerning the Concer

International Transport of Dangerous Goods by Kait) ICAO: International Civil Aviation Organization 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 EIINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society)

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