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

### 1.1 Product identifier

**Trade name**

**einzA Härter LawiDox, für Epoxidharz-Beschichtung RAL 7032**

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

**Relevant identified uses of the substance or mixture**
Epoxy resin
Hardener

**Uses advised against**
No data available.

### 1.3 Details of the supplier of the safety data sheet

**Address**
einzA Farben GmbH & Co KG
Junkersstraße 13
30179 Hannover

Telephone no. +49 (0)511 67490-0
Fax no. +49 (0)511 67490-20
e-mail info@einzA.com

**Advice on Safety Data Sheet**
sdb_info@umco.de

### 1.4 Emergency telephone number

For medical advice (in German and English):
+49 (0)551 192 40 (Giftinformationszentrum Nord)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Classification in accordance with Regulation (EC) No 1272/2008 (CLP)**
Acute Tox. 4; H302
Aquatic Chronic 3; H412
Eye Dam. 1; H318
Skin Corr. 1B; H314
Skin Sens. 1; H317

**Classification information**
This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:
Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP
Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

### 2.2 Label elements

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

**Hazard pictograms**


GHS05


GHS07

**Signal word**
Danger

**Hazardous component(s) to be indicated on label:**
3-aminomethyl-3,5,5-trimethylcyclohexylamine
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-Chloro-2,3-epoxypropane, Reaction products with 3-Aminomethyl-3,5,5-trimethylcyclohexylamine
m-phenylenebis(methylamine)
Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia

**Hazard statement(s)**

| | |
|---|---|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H412 | Harmful to aquatic life with long lasting effects. |

**Precautionary statement(s)**

| | |
|---|---|
| P101 | If medical advice is needed, have product container or label at hand. |
| P102 | Keep out of reach of children. |
| P280 | Wear protective gloves/eye protection. |
| P301+P330+P331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. |
| 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. |
| P310 | Immediately call a POISON CENTER/doctor. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container to a facility in accordance with local and national regulations. |

### 2.3 Other hazards

PBT assessment
The components of this product are not considered to be a PBT.

vPvB assessment
The components of this product are not considered to be a vPvB.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not applicable. The product is not a substance.

### 3.2 Mixtures

**Hazardous ingredients**

| No | Substance name | | Additional information | |
|---|---|---|---|---|
| | CAS / EC / Index / REACH no | Classification (EC) 1272/2008 (CLP) | Concentration | % |
| 1 | **benzyl alcohol** | | | |
| | 100-51-6<br>202-859-9<br>603-057-00-5<br>01-2119492630-38 | Acute Tox. 4; H302<br>Acute Tox. 4; H332 | >= 25.00 - < 50.00 | wt% |
| 2 | **3-aminomethyl-3,5,5-trimethylcyclohexylamine** | | | |
| | 2855-13-2<br>220-666-8<br>612-067-00-9<br>01-2119514687-32 | Acute Tox. 4; H302<br>Acute Tox. 4; H312<br>Aquatic Chronic 3; H412<br>Skin Corr. 1B; H314<br>Skin Sens. 1; H317 | >= 25.00 - < 50.00 | wt% |
| 3 | **4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-Chloro-2,3-epoxypropane, Reaction products with 3-Aminomethyl-3,5,5-trimethylcyclohexylamine** | | | |
| | 38294-64-3<br>-<br>-<br>01-2119965165-33 | Aquatic Chronic 3; H412<br>Skin Corr. 1B; H314<br>Skin Sens. 1; H317<br>Eye Dam. 1; H318 | >= 10.00 - < 25.00 | wt% |
| 4 | **m-phenylenebis(methylamine)** | | | |
| | 1477-55-0<br>216-032-5<br>-<br>01-2119480150-50 | Acute Tox. 4; H332<br>Acute Tox. 4; H302<br>Aquatic Chronic 3; H412<br>Skin Corr. 1B; H314<br>Eye Dam. 1; H318<br>Skin Sens. 1B; H317<br>EUH071 | >= 10.00 - < 25.00 | wt% |
| 5 | **Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia** | | | |
| | 9046-10-0<br>-<br>-<br>01-2119557899-12 | Skin Corr. 1C; H314<br>Eye Dam. 1; H318<br>Aquatic Chronic 3; H412 | < 5.00 | wt% |

Full text of H- and EUH-phrases, if not already mentioned in section 2.2: see section 16.

| Acute toxicity estimate (ATE) values | | | |
|---|---|---|---|
| **No** | **oral** | **dermal** | **inhalative** |
| 1 | 1230 mg/kg bodyweight | | |
| 2 | 1030 mg/kg bodyweight | | |

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**General information**
In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious place in recovery position and seek medical advice.

**After inhalation**
Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, administer artificial respiration.

**After skin contact**
Remove contaminated clothing. After skin contact immediately wash with water and soap and rinse thoroughly. Do NOT use solvents or thinners.

**After eye contact**
Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). Seek medical assistance.

**After ingestion**
Do NOT induce vomiting. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Keep at rest.

### 4.2 Most important symptoms and effects, both acute and delayed
No data available.

### 4.3 Indication of any immediate medical attention and special treatment needed
No data available.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media
**Suitable extinguishing media**
Alcohol resistant foam, CO2, powders, water spray

**Unsuitable extinguishing media**
water jet.

### 5.2 Special hazards arising from the substance or mixture
In the event of fire, the following can be released: Carbon monoxide (CO); Carbon dioxide (CO2); Toxic pyrolysis products; Exposure to decomposition products may cause a health hazard.

### 5.3 Advice for firefighters
Cool closed containers exposed to fire with water. Do not allow run-off from fire fighting to enter drains or water courses. Appropriate breathing apparatus may be required.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures
**For non-emergency personnel**
Exclude sources of ignition and ventilate the area. Avoid breathing vapours. Refer to protective measures listed in sections 7 and 8.

**For emergency responders**
No data available. Personal protective equipment (PPE) - see Section 8.

### 6.2 Environmental precautions
Is not allowed to be released into the sewerage or water courses. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.

### 6.3 Methods and material for containment and cleaning up
Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). Clean preferably with a detergent - avoid use of solvents.

### 6.4 Reference to other sections
No data available.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling
**Advice on safe handling**
Due to the organic solvents' content of the mixture: Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. The product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Avoid the inhalation of dust, particulates and spray mist arising from the application of this mixture. Dry sanding, flame cutting and/or welding of the dry paint film may give rise to dust and/or hazardous fumes. Wet [sanding]/[flatting] should be used wherever possible. Avoid inhalation of dust from sanding. For personal protection see section 8.

**General protective and hygiene measures**
Avoid skin and eye contact. Do not eat or drink during work - no smoking. Wash hands before breaks and after work. Clean skin thoroughly after work; apply skin cream.

**Advice on protection against fire and explosion**
Isolate from sources of heat, sparks and open flame. No sparking tools should be used. Electrical equipment should be protected to the appropriate standard. Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

### 7.2 Conditions for safe storage, including any incompatibilities

**Technical measures and storage conditions**
Comply with legal health and safety regulations; Prevent unauthorised access. Keep container tightly closed and dry in a cool, well-ventilated place. Protect from heat and direct sunlight. Keep away from sources of ignition. No smoking.

**Requirements for storage rooms and vessels**
Always keep in containers of same material as the original one. Never use pressure to empty: container is not a pressure vessel. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep container tightly closed. Observe label precautions.

**Incompatible products**
Store away from oxidising agents, from strongly alkaline and strongly acid materials.

### 7.3 Specific end use(s)
No data available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**DNEL, DMEL and PNEC values**

**DNEL values (worker)**

| No | Substance name | | | CAS / EC no | |
|---|---|---|---|---|---|
| | Route of exposure | Exposure time | Effect | Value | |
| 1 | **benzyl alcohol** | | | **100-51-6<br>202-859-9** | |
| | dermal | Long term (chronic) | systemic | 8 | mg/kg/day |
| | dermal | Short term (acut) | systemic | 40 | mg/kg/day |
| | inhalative | Long term (chronic) | systemic | 22 | mg/m³ |
| | inhalative | Short term (acut) | systemic | 110 | mg/m³ |
| 2 | **3-aminomethyl-3,5,5-trimethylcyclohexylamine** | | | **2855-13-2<br>220-666-8** | |
| | inhalative | Long term (chronic) | local | 0.073 | mg/m³ |
| | inhalative | Short term (acut) | local | 0.073 | mg/m³ |
| 3 | **m-phenylenebis(methylamine)** | | | **1477-55-0<br>216-032-5** | |
| | dermal | Long term (chronic) | systemic | 0.33 | mg/kg |
| | inhalative | Long term (chronic) | systemic | 1.2 | mg/m³ |
| | inhalative | Long term (chronic) | local | 0.2 | mg/m³ |
| 4 | **Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia** | | | **9046-10-0<br>-** | |
| | dermal | Long term (chronic) | systemic | 2.5 | mg/kg/day |
| | inhalative | Long term (chronic) | systemic | 5.29 | mg/m³ |

**DNEL value (consumer)**

| No | Substance name | | | CAS / EC no | |
|---|---|---|---|---|---|
| | Route of exposure | Exposure time | Effect | Value | |
| 1 | **benzyl alcohol** | | | **100-51-6<br>202-859-9** | |
| | oral | Long term (chronic) | systemic | 4 | mg/kg/day |
| | oral | Short term (acut) | systemic | 20 | mg/kg/day |
| | dermal | Long term (chronic) | systemic | 4 | mg/kg/day |
| | dermal | Long term (chronic) | systemic | 20 | mg/kg/day |
| | inhalative | Long term (chronic) | systemic | 5.4 | mg/m³ |
| | inhalative | Short term (acut) | systemic | 27 | mg/m³ |
| 2 | **3-aminomethyl-3,5,5-trimethylcyclohexylamine** | | | **2855-13-2<br>220-666-8** | |
| | oral | Long term (chronic) | systemic | 0.3 | mg/kg bw/day |
| | oral | Short term (acut) | systemic | 0.3 | mg/kg bw/day |

**PNEC values**

| No | Substance name | | CAS / EC no | |
|---|---|---|---|---|
| | ecological compartment | Type | Value | |
| 1 | **benzyl alcohol** | | **100-51-6<br>202-859-9** | |
| | water | fresh water | 1 | mg/L |
| | water | marine water | 0.1 | mg/L |

| | | | | |
|---|---|---|---|---|
| | water | Aqua intermittent | 2.3 | mg/L |
| | water | fresh water sediment | 5.27 | mg/kg dry weight |
| | water | marine water sediment | 0.527 | mg/kg dry weight |
| | soil | - | 0.456 | mg/kg dry weight |
| | sewage treatment plant | - | 39 | mg/L |
| 2 | **3-aminomethyl-3,5,5-trimethylcyclohexylamine** | | **2855-13-2<br>220-666-8** | |
| | water | fresh water | 0.06 | mg/L |
| | water | marine water | 0.006 | mg/L |
| | water | fresh water sediment | 5.784 | mg/kg dry weight |
| | water | marine water sediment | 0.578 | mg/kg dry weight |
| | soil | - | 1.121 | mg/kg dry weight |
| | sewage treatment plant | - | 3.18 | mg/L |
| 3 | **m-phenylenebis(methylamine)** | | **1477-55-0<br>216-032-5** | |
| | water | fresh water | 0.094 | mg/L |
| | water | marine water | 0.0094 | mg/L |
| | water | fresh water sediment | 12.4 | mg/kg |
| | with reference to: dry mass | | | |
| | water | marine water sediment | 1.24 | mg/kg |
| | with reference to: dry mass | | | |
| | soil | - | 2.44 | mg/kg |
| | with reference to: dry mass | | | |
| | sewage treatment plant | - | 10 | mg/L |
| 4 | **Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia** | | **9046-10-0<br>-** | |
| | water | fresh water | 0.015 | mg/L |
| | water | marine water | 0.014 | mg/L |
| | water | fresh water sediment | 0.132 | mg/kg dry weight |
| | water | marine water sediment | 0.125 | mg/kg dry weight |
| | soil | - | 0.018 | mg/kg dry weight |
| | sewage treatment plant | - | 7.5 | mg/L |
| | secondary poisoning | - | 6.93 | mg/kg food |

### 8.2 Exposure controls

**Appropriate engineering controls**

Provide good ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL, suitable respiratory protection must be worn.

#### Personal protective equipment

**Respiratory protection**

If workers are exposed to concentrations above the exposure limit they must use appropriate, certified respirators. When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits. Filter A2P2 (DIN EN 14387)

**Eye / face protection**

Wear safety googles to protect against splashes. Safety glasses with side protection shield (EN 166)

**Hand protection**

Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

| | | | |
|---|---|---|---|
| Appropriate Material | butyl rubber | | |
| Material thickness | >= | 0.7 | mm |
| Breakthrough time | > | 480 | min |
| Appropriate Material | nitrile rubber | | |
| Material thickness | >= | 0.4 | mm |
| Breakthrough time | > | 480 | min |

**Other**

Personnel should wear anti-static clothing made of natural fibre or of high temperature resistant synthetic fibre.

**Environmental exposure controls**

Do not allow to enter drains or water courses.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| **State of aggregation** |
|---|
| liquid |

| **Form** |
|---|
| liquid |

| **Colour** |
|---|
| yellowish |

| **Odour** |
|---|
| amine-like |

| **pH value** | |
|---|---|
| reason for missing pH | substance/mixture is non-soluble (in water) |

| **Boiling point / boiling range** | | |
|---|---|---|
| Value | 205 | °C |

| **Melting point/freezing point** |
|---|
| No data available |

| **Decomposition temperature** |
|---|
| No data available |

| **Flash point** | | |
|---|---|---|
| Value | 101 | °C |

| **Ignition temperature** | | |
|---|---|---|
| Value | 435 | °C |

| **Oxidising properties** |
|---|
| Not applicable |

| **Flammability** |
|---|
| Not applicable |

| **Lower explosion limit** | | |
|---|---|---|
| Value | 1.3 | % vol |

| **Upper explosion limit** | | |
|---|---|---|
| Value | 13 | % vol |

| **Vapour pressure** | | |
|---|---|---|
| Value | 0.1 | hPa |
| Reference temperature | 20 | °C |

| **Relative vapour density** |
|---|
| No data available |

| **Relative density** |
|---|
| No data available |

| **Density** | | |
|---|---|---|
| Value | 1.02 | g/cm³ |
| Reference temperature | 20 | °C |

| **Solubility in water** | |
|---|---|
| Comments | partially miscible |

| **Solubility** |
|---|
| No data available |

**Partition coefficient n-octanol/water (log value)**

| **No** | **Substance name** | **CAS no.** | **EC no.** |
|---|---|---|---|
| **1** | **benzyl alcohol** | **100-51-6** | **202-859-9** |
| log Pow | | 1.05 | |
| Reference temperature | | 20 | °C |
| Source | ECHA | | |
| **2** | **3-aminomethyl-3,5,5-trimethylcyclohexylamine** | **2855-13-2** | **220-666-8** |
| log Pow | | 0.99 | |
| Reference temperature | | 23 | °C |
| with reference to | pH 6.34 | | |
| Source | ECHA | | |
| **3** | **Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia** | **9046-10-0** | **-** |
| log Pow | | 1.34 | |
| Reference temperature | | 25 | °C |
| Method | OECD 117 | | |

| Kinematic viscosity | | | |
|---|---|---|---|
| Value | 300 | mPa*s | |
| Reference temperature | 20 | °C | |
| Type | dynamic | | |

| Solvent separation test |
|---|
| Not applicable |

| Particle characteristics |
|---|
| No data available |

### 9.2 Other information

| Other information |
|---|
| No data available. |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Stable under recommended storage and handling conditions (See section 7).

### 10.2 Chemical stability

Stable under recommended storage and handling conditions (See section 7).

### 10.3 Possibility of hazardous reactions

Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

### 10.4 Conditions to avoid

Heat, naked flames and other ignition sources.

### 10.5 Incompatible materials

Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

### 10.6 Hazardous decomposition products

None if stored, handled and transported properly. In case of fire: see section 5.

## SECTION 11: Toxicological information

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

| Acute oral toxicity (result of the ATE calculation for the mixture) | |
|---|---|
| **Product Name** | |
| **einzA Härter LawiDox, für Epoxidharz-Beschichtung RAL 7032** | |
| ATE (Mixture) | 1142.39 mg/kg |
| Method | Calculation method according Regulation (EC) No 1272/2008, (CLP), annex I, part 3, section 3.1.3.6. |

| Acute oral toxicity | | | | |
|---|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | | **EC no.** |
| **1** | **benzyl alcohol** | **100-51-6** | | **202-859-9** |
| LD50 | | 1230 | | mg/kg bodyweight |
| Species | rat | | | |
| **2** | **3-aminomethyl-3,5,5-trimethylcyclohexylamine** | **2855-13-2** | | **220-666-8** |
| LD50 | | 1030 | | mg/kg bodyweight |
| Species | rat | | | |
| Method | OECD 401 | | | |
| Source | ECHA | | | |
| **3** | **Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia** | **9046-10-0** | | **-** |
| LD50 | | 2885 | | mg/kg bodyweight |
| Species | rat (female) | | | |
| Method | OECD 401 | | | |
| Source | ECHA | | | |

| Acute dermal toxicity (result of the ATE calculation for the mixture) | |
|---|---|
| **Product Name** | |
| **einzA Härter LawiDox, für Epoxidharz-Beschichtung RAL 7032** | |
| Comments | The result of the applied calculation method according to the European Regulation (EC) 1272/2008 (CLP), Paragraph 3.1.3.6, Part 3 of Annex I is outside the values that imply a classification / labelling of this mixture according to table 3.1.1 defining the respective categories (ATE dermal > 2000 mg/kg). |

| Acute dermal toxicity | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |

| 1 | benzyl alcohol | 100-51-6 | 202-859-9 |
|---|---|---|---|
| LD50 | | 2000 | mg/kg bodyweight |
| Species | rabbit | | |
| **2** | **3-aminomethyl-3,5,5-trimethylcyclohexylamine** | **2855-13-2** | **220-666-8** |
| LD50 | > | 2000 | mg/kg bodyweight |
| Species | rabbit | | |
| Method | OECD 402 | | |
| Source | ECHA | | |
| **3** | **Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia** | **9046-10-0** | **-** |
| LD50 | | 2979 | mg/kg bodyweight |
| Species | rabbit | | |
| Method | OECD 402 | | |
| Source | ECHA | | |

| **Acute inhalational toxicity (result of the ATE calculation for the mixture)** | |
|---|---|
| **Product Name** | |
| **einzA Härter LawiDox, für Epoxidharz-Beschichtung RAL 7032** | |
| Comments | The result of the applied calculation method according to the European Regulation (EC) 1272/2008 (CLP), Paragraph 3.1.3.6, Part 3 of Annex I is outside the values that imply a classification / labelling of this mixture according to table 3.1.1 defining the respective categories (ATE for inhalation: > 20.000 ppmV (gases), > 20 mg/l (vapours), > 5 mg/l (dusts/mists). |

| **Acute inhalational toxicity** | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **3-aminomethyl-3,5,5-trimethylcyclohexylamine** | **2855-13-2** | **220-666-8** |
| LC50 | > | 5.01 | mg/l |
| Duration of exposure | | 4 | h |
| State of aggregation | Dust/mist | | |
| Species | rat | | |
| Method | OECD 403 | | |
| Source | ECHA | | |

| **Skin corrosion/irritation** | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **benzyl alcohol** | **100-51-6** | **202-859-9** |
| Species | rabbit | | |
| Method | OECD 404 | | |
| Source | ECHA | | |
| Evaluation | non-irritant | | |
| **2** | **3-aminomethyl-3,5,5-trimethylcyclohexylamine** | **2855-13-2** | **220-666-8** |
| Species | rabbit | | |
| Method | Draize method | | |
| Source | ECHA | | |
| Evaluation | corrosive | | |
| **3** | **Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia** | **9046-10-0** | **-** |
| Species | rabbit | | |
| Method | OECD 404 | | |
| Source | ECHA | | |
| Evaluation | corrosive | | |

| **Serious eye damage/irritation** | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **benzyl alcohol** | **100-51-6** | **202-859-9** |
| Species | rabbit | | |
| Method | OECD 405 | | |
| Source | ECHA | | |
| Evaluation | non-irritant | | |
| **2** | **3-aminomethyl-3,5,5-trimethylcyclohexylamine** | **2855-13-2** | **220-666-8** |
| Species | rabbit | | |
| Method | OECD 405 | | |
| Source | ECHA | | |
| Evaluation | corrosive | | |
| **3** | **Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia** | **9046-10-0** | **-** |
| Species | rabbit | | |
| Method | OECD 405 | | |
| Source | ECHA | | |
| Evaluation | corrosive | | |

| Respiratory or skin sensitisation | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **benzyl alcohol** | **100-51-6** | **202-859-9** |
| Route of exposure | Skin | | |
| Species | mouse | | |
| Method | OECD 429 | | |
| Source | ECHA | | |
| Evaluation | non-sensitizing | | |
| **2** | **3-aminomethyl-3,5,5-trimethylcyclohexylamine** | **2855-13-2** | **220-666-8** |
| Route of exposure | Skin | | |
| Species | guinea pig | | |
| Method | OECD 406 | | |
| Source | ECHA | | |
| Evaluation | sensitizing | | |

| Germ cell mutagenicity | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **benzyl alcohol** | **100-51-6** | **202-859-9** |
| Species | Salmonella typhimurium TA98, TA100, TA1535, TA1537 | | |
| Method | OECD 471 | | |
| Source | ECHA | | |
| Evaluation/classification | Based on available data, the classification criteria are not met. | | |
| **2** | **3-aminomethyl-3,5,5-trimethylcyclohexylamine** | **2855-13-2** | **220-666-8** |
| Source | ECHA | | |
| Evaluation/classification | Based on available data, the classification criteria are not met. | | |

| Reproduction toxicity | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **3-aminomethyl-3,5,5-trimethylcyclohexylamine** | **2855-13-2** | **220-666-8** |
| Source | ECHA | | |
| Evaluation/classification | Based on available data, the classification criteria are not met. | | |

| Carcinogenicity | | | |
|---|---|---|---|
| **No** | **Substance name** | **CAS no.** | **EC no.** |
| **1** | **benzyl alcohol** | **100-51-6** | **202-859-9** |
| Route of exposure | oral | | |
| | 400 | | mg/kg bw/d |
| Species | rat | | |
| Method | OECD 451 | | |
| Source | ECHA | | |
| Evaluation/classification | Based on available data, the classification criteria are not met. | | |

| STOT - single exposure |
|---|
| No data available |

| STOT - repeated exposure |
|---|
| No data available |

| Aspiration hazard |
|---|
| No data available |

| Endocrine disrupting properties |
|---|
| No data available |

| Delayed and immediate effects as well as chronic effects from short and long-term exposure |
|---|
| Exposure to component solvents vapours concentration in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. The liquid splashed in the eyes may cause irritation and reversible damage. Ingestion may cause nausea, diarrhoea and vomiting. Based on the properties of the epoxy constituent(s) and considering toxicological data on similar mixtures, this mixture may be a skin sensitiser and an irritant. It contains low molecular weight epoxy constituents which are irritating to eyes, mucous membrane and skin. Repeated skin contact may lead to irritation and to sensitisation, possibly with cross-sensitisation to other epoxies. Skin contact with the mixture and exposure to spray mist and vapour should be avoided. |

### 11.2 Information on other hazards

**Other information**
No data available.

## SECTION 12: Ecological information

### 12.1 Toxicity

| Toxicity to fish (acute) |
|---|

| No | Substance name | CAS no. | EC no. |
|---|---|---|---|
| 1 | benzyl alcohol | 100-51-6 | 202-859-9 |

| | | | |
|---|---|---|---|
| LC50 | | 460 | mg/l |
| Duration of exposure | | 96 | h |
| Species | Pimephales promelas | | |
| Method | EPA OPP 72-1 | | |
| Source | ECHA | | |

| No | Substance name | CAS no. | EC no. |
|---|---|---|---|
| 2 | 3-aminomethyl-3,5,5-trimethylcyclohexylamine | 2855-13-2 | 220-666-8 |

| | | | |
|---|---|---|---|
| LC50 | | 110 | mg/l |
| Duration of exposure | | 96 | h |
| Species | Leuciscus idus | | |
| Method | EEC C1 | | |
| Source | ECHA | | |

| No | Substance name | CAS no. | EC no. |
|---|---|---|---|
| 3 | Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia | 9046-10-0 | - |

| | | | |
|---|---|---|---|
| LC50 | > | 15 | mg/l |
| Duration of exposure | | 96 | h |
| Species | Oncorhynchus mykiss | | |
| Method | OECD 203 | | |
| Source | ECHA | | |

**Toxicity to fish (chronic)**

No data available

**Toxicity to Daphnia (acute)**

| No | Substance name | CAS no. | EC no. |
|---|---|---|---|
| 1 | benzyl alcohol | 100-51-6 | 202-859-9 |

| | | | |
|---|---|---|---|
| EC50 | | 230 | mg/l |
| Duration of exposure | | 48 | h |
| Species | Daphnia magna | | |
| Method | OECD 202 | | |
| Source | ECHA | | |

| No | Substance name | CAS no. | EC no. |
|---|---|---|---|
| 2 | 3-aminomethyl-3,5,5-trimethylcyclohexylamine | 2855-13-2 | 220-666-8 |

| | | | |
|---|---|---|---|
| EC50 | | 23 | mg/l |
| Duration of exposure | | 48 | h |
| Species | Daphnia magna | | |
| Method | OECD 202 | | |
| Source | ECHA | | |

| No | Substance name | CAS no. | EC no. |
|---|---|---|---|
| 3 | Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia | 9046-10-0 | - |

| | | | |
|---|---|---|---|
| EC50 | | 80 | mg/l |
| Duration of exposure | | 48 | h |
| Species | Daphnia magna | | |
| Method | OECD 202 | | |
| Source | ECHA | | |

**Toxicity to Daphnia (chronic)**

| No | Substance name | CAS no. | EC no. |
|---|---|---|---|
| 1 | benzyl alcohol | 100-51-6 | 202-859-9 |

| | | | |
|---|---|---|---|
| NOEC | | 51 | mg/l |
| Duration of exposure | | 21 | day(s) |
| Species | Daphnia magna | | |
| Method | OECD 211 | | |
| Source | ECHA | | |

| No | Substance name | CAS no. | EC no. |
|---|---|---|---|
| 2 | 3-aminomethyl-3,5,5-trimethylcyclohexylamine | 2855-13-2 | 220-666-8 |

| | | | |
|---|---|---|---|
| NOEC | | 3 | mg/l |
| Duration of exposure | | 21 | day(s) |
| Species | Daphnia magna | | |
| Method | OECD 211 | | |
| Source | ECHA | | |

**Toxicity to algae (acute)**

| No | Substance name | CAS no. | EC no. |
|---|---|---|---|
| 1 | benzyl alcohol | 100-51-6 | 202-859-9 |

| | | | |
|---|---|---|---|
| EC50 | | 710 | mg/l |
| Duration of exposure | | 72 | h |
| Species | Pseudokirchneriella subcapitata | | |
| Method | OECD 201 | | |
| Source | ECHA | | |

| No | Substance name | CAS no. | EC no. |
|---|---|---|---|
| 2 | 3-aminomethyl-3,5,5-trimethylcyclohexylamine | 2855-13-2 | 220-666-8 |

| | | | |
|---|---|---|---|
| EC50 | | 37 | mg/l |
| Duration of exposure | | 72 | h |

| | |
|---|---|
| Species | Desmodesmus subspicatus |
| Method | EEC C3 |
| Source | ECHA |

| | | | |
|---|---|---|---|
| **3** | **Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia** | **9046-10-0** | **-** |

| | | |
|---|---|---|
| ErC50 | 15 | mg/l |
| Duration of exposure | 72 | h |
| Species | Pseudokirchneriella subcapitata | |
| Method | OECD 201 | |
| Source | ECHA | |

**Toxicity to algae (chronic)**

| No | Substance name | CAS no. | EC no. |
|---|---|---|---|
| **1** | **3-aminomethyl-3,5,5-trimethylcyclohexylamine** | **2855-13-2** | **220-666-8** |

| | | |
|---|---|---|
| NOEC | 1.5 | mg/l |
| Duration of exposure | 72 | |
| Species | Desmodesmus subspicatus | |
| Method | 440/2008/EC C.3. | |
| Source | ECHA | |

**Bacteria toxicity**

| No | Substance name | CAS no. | EC no. |
|---|---|---|---|
| **1** | **benzyl alcohol** | **100-51-6** | **202-859-9** |

| | | |
|---|---|---|
| IC50 | 390 | mg/l |
| Duration of exposure | 24 | h |
| Species | Nitrosomonas sp. | |
| Method | ISO 8192 | |
| Source | ECHA | |

### 12.2 Persistence and degradability

**Biodegradability**

| No | Substance name | CAS no. | EC no. |
|---|---|---|---|
| **1** | **benzyl alcohol** | **100-51-6** | **202-859-9** |

| | | | | |
|---|---|---|---|---|
| Value | 92 | - | 96 | % |
| Source | ECHA | | | |
| Evaluation | readily biodegradable | | | |

| | | | |
|---|---|---|---|
| **2** | **3-aminomethyl-3,5,5-trimethylcyclohexylamine** | **2855-13-2** | **220-666-8** |

| | | |
|---|---|---|
| Value | 8 | % |
| Duration | 28 | day(s) |
| Method | 92/69 EEC C.4-A | |
| Source | ECHA | |
| Evaluation | not readily biodegradable | |

| | | | |
|---|---|---|---|
| **3** | **Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia** | **9046-10-0** | **-** |

| | | |
|---|---|---|
| Type | aerobic biodegradation | |
| Value | 0 | % |
| Duration | 28 | day(s) |
| Method | OECD 301 B | |
| Source | ECHA | |

### 12.3 Bioaccumulative potential

**Partition coefficient n-octanol/water (log value)**

| No | Substance name | CAS no. | EC no. |
|---|---|---|---|
| **1** | **benzyl alcohol** | **100-51-6** | **202-859-9** |

| | | |
|---|---|---|
| log Pow | 1.05 | |
| Reference temperature | 20 | °C |
| Source | ECHA | |

| | | | |
|---|---|---|---|
| **2** | **3-aminomethyl-3,5,5-trimethylcyclohexylamine** | **2855-13-2** | **220-666-8** |

| | | |
|---|---|---|
| log Pow | 0.99 | |
| Reference temperature | 23 | °C |
| with reference to | pH 6.34 | |
| Source | ECHA | |

| | | | |
|---|---|---|---|
| **3** | **Reaction products of di-, tri- and tetra-propoxylated propane-1,2-diol with ammonia** | **9046-10-0** | **-** |

| | | |
|---|---|---|
| log Pow | 1.34 | |
| Reference temperature | 25 | °C |
| Method | OECD 117 | |

### 12.4 Mobility in soil

No data available.

### 12.5 Results of PBT and vPvB assessment

| Results of PBT and vPvB assessment | |
|---|---|
| **Product Name** | |
| **einzA Härter LawiDox, für Epoxidharz-Beschichtung RAL 7032** | |
| PBT assessment | The components of this product are not considered to be a PBT. |
| vPvB assessment | The components of this product are not considered to be a vPvB. |

### 12.6 Endocrine disrupting properties

No data available.

### 12.7 Other adverse effects

No data available.

### 12.8 Other information

| Other information |
|---|
| Do not allow to enter drains or water courses. |

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

**Product**

Waste code 08 04 09* waste adhesives and sealants containing organic solvents or other hazardous substances

The listed waste code numbers, according to the European Waste Catalogue, are to be understood as a recommendation. A final decision must be made in agreement with the regional waste disposal company.
Disposal of the product should be carried out in accordance with all applicable regulations following consultation with the responsible local authority and the disposal company in an authorised and suitable disposal facility.

**Packaging**

Residues must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer. Empty containers must be scrapped or reconditioned.

## SECTION 14: Transport information

### 14.1 UN number or ID number

| | |
|---|---|
| **ADR/RID/ADN** | UN2735 |
| **IMDG** | UN2735 |
| **ICAO-TI / IATA** | UN2735 |

### 14.2 UN proper shipping name

| | |
|---|---|
| **ADR/RID/ADN** | AMINES, LIQUID, CORROSIVE, N.O.S. |
| **IMDG** | AMINES, LIQUID, CORROSIVE, N.O.S. |
| **ICAO-TI / IATA** | Amines, liquid, corrosive, n.o.s. |

### 14.3 Transport hazard class(es)

| | |
|---|---|
| **ADR/RID/ADN - Class** | 8 |
| Label | 8 |
| Classification code | C7 |
| Tunnel restriction code | E |
| Hazard identification no. | 80 |
| **IMDG - Class** | 8 |
| Label | 8 |
| **ICAO-TI / IATA - Class** | 8 |
| Label | 8 |

### 14.4 Packing group

| | |
|---|---|
| **ADR/RID/ADN** | II |
| **IMDG** | II |
| **ICAO-TI / IATA** | II |

### 14.5 Environmental hazards

EmS F-A, S-B

### 14.6 Special precautions for user

Transport within the user's premises: Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

### 14.7 Maritime transport in bulk according to IMO instruments

Not relevant

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**EU regulations**

| **Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)** |
|---|
| According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006. |

| **REACH candidate list of substances of very high concern (SVHC) for authorisation** |
|---|
| According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006. |

| **Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES** | | | | |
|---|---|---|---|---|
| The product is considered being subject to REACH regulation (EC) 1907/2006 annex XVII. | | | | No 3 |
| The product contains following substance(s) that are considered being subject to REACH regulation (EC) 1907/2006 annex XVII. | | | | |
| **No** | **Substance name** | **CAS no.** | **EC no.** | **No** |
| **1** | **3-aminomethyl-3,5,5-trimethylcyclohexylamine** | **2855-13-2** | **220-666-8** | **75** |

| **Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances** |
|---|
| This product is not subject to Part 1 or 2 of Annex I. |

**National regulations**

**Other national regulations**
Adhere to national regulations for proper handling and use of hazardous materials. Use appropriate personal protective equipment.

### 15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this mixture.

## SECTION 16: Other information

**Sources of key data used to compile the data sheet:**
Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.
The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding section.
Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.
National Threshold Limit Values of the corresponding countries as amended in each case.
Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

**Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)**

| | |
|---|---|
| EUH071 | Corrosive to the respiratory tract. |
| H312 | Harmful in contact with skin. |
| H318 | Causes serious eye damage. |
| H332 | Harmful if inhaled. |

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This information is based on our present knowledge and experience.
The safety data sheet describes products with a view to safety requirements.
It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

Alterations/supplements:
Alterations to the previous edition are marked in the left-hand margin.


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