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## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY UNDERTAKING

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**Product name** Denpox Hardener

**Applications** For chemical/technical use.

**Contact** Dencoat  
E-mail: info@dencoat.com  
Website: www.dencoat.com

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## 2. COMPOSITION/INFORMATION ON INGREDIENTS

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| Name   | EC no. | CAS no.   | Content  | Symbol | R-phrases              |
|--|--------|-----------|----------|--------|------------------------|
| 3-aminomethyl-3,5,5-trimethylcyclohexylamine |        | 2855-13-2 | 50-100 % | C      | R-21/22, 34, 43, 52/53 |
| benzyl alcohol                               |        | 100-51-6  | 10-25 %  | Xn     | R-20/22                |
| 2-piperazin-1-ylethylamine                   |        | 140-31-8  | 10-25 %  | C      | R-21/22, 34, 43, 52/53 |
| Salicylic acid                               |        | 69-72-7   | 10-25 %  | -      | R-22, 37/38, 41        |

See section 16 for explanations of R-phrases

**Composition comments** Epoxy resin hardener.

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## 3. HAZARDS IDENTIFICATION

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Harmful in contact with skin and if swallowed.  
Causes burns. May cause sensitization by skin contact. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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## 4. FIRST AID MEASURES

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**Inhalation** Provide rest, warmth and fresh air. To hospital or physician.

**Ingestion** Get medical attention immediately!  
Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious.

**Skin** Remove contaminated clothing.  
Wash skin thoroughly with soap and water.

**Eyes** Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Contact doctor.

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## 5. FIRE FIGHTING MEASURES

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**Extinguishing media** Water. Powder. Carbon dioxide (CO<sub>2</sub>). Foam. Larger fires: Water spray.

**Special firefighting procedures** Use supplied air respirator if substance is involved in a fire.  
Use special protective clothing. Regular protection could not be safe.  
Reduce the spreading of the fire appliances.  
Dike and collect extinguishing water.  
Keep run-off water out of sewers and water sources. Dike for water control.

## 6. ACCIDENTAL RELEASE MEASURES

|                                 |  |
|---------------------------------|--|
| <b>Personal protection</b>      | Use personal equipment. Avoid contact with eyes and skin.  |
| <b>Environmental protection</b> | Must not enter into drains.  |
| <b>Spill clean-up methods</b>   | Collect spilled material using mechanical equipment. The local authority is informed in case of pollution of lakes, treams or sewers.<br>Ventilate well.<br>Ventilate well. Dilute with copious amounts of water.<br>Absorb in vulcanic ash/dirt, sand/dry dirt, kieselguhr, mineral wool mats or other appropriate material. Collect in closed container. |

## 7. HANDLING AND STORAGE

|                             |  |
|-----------------------------|--|
| <b>Usage precautions</b>    | Avoid spilling, skin and eye contact. Provide good ventilation.  |
| <b>*Storage precautions</b> | Keep in cool, dry, ventilated storage and closed containers. Keep in original container.<br>Storage between 10 and 30 degrees celsius.<br>Store on underlay of cement. |

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Protective equipment



|  |  |
|--|--|
| <b>Ventilation</b>                     | Well ventilated area.  |
| <b>Respirators</b>                     | If ventilation is insufficient, suitable respiratory protection must be provided.  |
| <b>Protective gloves</b>               | Use protective gloves. Rubber or plastic.<br>Nitrile.<br>Polyvinyl chloride (PVC).<br>Penetration depends on concentration and duration of exposure. |
| <b>Eye protection</b>                  | Wear approved safety goggles.  |
| <b>Other protection</b>                | Wear appropriate clothing to prevent reasonably probable skin contact.   |
| <b>Hygienic work practices</b>         | Do not eat or drink when handling this material<br>Wash at the end of each work shift and before eating, smoking and using the toilet.               |
| <b>Environmental exposure controls</b> | Not known  |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                                     |   |                         |    |
|-------------------------------------|---|-------------------------|----|
| <b>Appearance</b>                   | Liquid.   |                         |    |
| <b>Colour</b>                       | Yellowish.  |                         |    |
| <b>Odour</b>                        | Amine.  |                         |    |
| <b>Solubility description</b>       | Slightly soluble in water.<br>Soluble in:<br>Organic solvents (most). |                         |    |
| <b>Boiling point (°C, interval)</b> | > 200   | <b>Pressure</b>         |    |
| <b>Density (g/ml)</b>               | 0,993   | <b>Temperature (°C)</b> | 20 |
| <b>Vapour pressure</b>              | 0,1 hPa   | <b>Temperature (°C)</b> | 20 |
| <b>pH-value, diluted solution</b>   | 10  | <b>Concentration %M</b> | 2% |
| <b>Viscosity (interval)</b>         | 130 mPas  | <b>Temperature (°C)</b> | 25 |

|                          |            |               |      |
|--------------------------|------------|---------------|------|
| Flash point (°C)         | 92         | <b>Method</b> | n/a. |
| Auto ignition temp. (°C) | 315        |               |      |
| Flammability limit (%)   | 1,2 - 13,0 |               |      |

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## 10. STABILITY AND REACTIVITY

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|---|--|
| <b>Conditions to avoid</b>              | Avoid contact with acids. Avoid contact with strong oxidizers. |
| <b>Hazardous decomposition products</b> | Flammable gases/vapours/fumes of:<br>Ammonia or amines.        |

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## 11. TOXICOLOGICAL INFORMATION

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|-----------------------------------|---|
| <b>Toxicology data</b>            | Acute toxicity. LD50. Oral. Rat. 2140 mg/kg /CAS 140-31-8<br>Acute toxicity. LD50. Skin. Rabbit. 880 mg/kg /CAS 140-31-8  |
| <b>Toxic dose - LD 50:</b>        | CAS 2855-13-2/ 1030 mg/kg (oral rat)  |
| <b>Toxic dose - LD 50:</b>        | CAS 100-51-6/ 1230 mg/kg (oral rat)   |
| <b>Toxic dose - LD 50 (skin):</b> | CAS 100-51-6/ 2000 mg/kg (skin rabbit)  |
| <b>Ingestion</b>                  | Harmful if swallowed. Swallowing concentrated chemical could cause severe internal injury.<br>Could cause chemical burns in mouth and throat.<br>Could cause burns in mucous membranes, throat, oesophagus and stomach. |
| <b>Skin</b>                       | Harmful in contact with skin. Causes burns.   |
| <b>Eyes</b>                       | Causes burns.   |
| <b>Health warnings</b>            | Skin contact can cause:<br>Over-sensitivity (allergy).<br>Ingestion could cause:<br>Serious corrosion injury.<br>Chemical burns in stomach or intestines.   |

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## 12. ECOLOGICAL INFORMATION

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|--------------------------------------|--|
| <b>Ecotoxicology data</b>            | Acute toxicity. EC50 24 hours Daphnia 44 mg/l /CAS 2855-13-2<br>Acute toxicity. EC50 72 hours algae 37 mg/l /CAS 2855-13-2<br>Acute toxicity. EC50 96 hours algae 640 mg/l /CAS 100-51-6<br>Acute toxicity. EC50 96 hours Daphnia 400 mg/l /CAS 100-51-6<br>Acute toxicity. LC50 96 hours fish > 1800 mg/l /CAS 140-31-8 |
| <b>LC 50, 96 Hrs, Fish mg/l:</b>     | 646 mg/L (leuciscus idus) / CAS 100-51-6   |
| <b>EC 50, 48 Hrs, Daphnia, mg/l:</b> | 58 mg/L / CAS 140-31-8   |
| <b>Ecotoxicity</b>                   | Dangerous for the environment: Could cause long-term adverse effects in the aquatic environment. Harmful to aquatic organisms.   |
| <b>Persistence and degradability</b> | Unknown.   |

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## 13. DISPOSAL CONSIDERATIONS

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|                         |  |
|-------------------------|--|
| <b>Disposal methods</b> | Confirm disposal procedures with environmental engineer and local regulations. |
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## 14. TRANSPORT INFORMATION

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Carriage transport labels



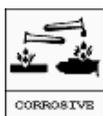
|  |  |
|--|--|
| <b>*Proper shipping name (national)</b>      | POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Epoxide resin hardener) |
| <b>*Proper shipping name (international)</b> | POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Epoxide resin hardener) |
| <b>ROAD TRANSPORT (ADR):</b>                 |  |
| UN no. road                                  | 2735   |
| *ADR class no.                               | 8  |
| ADR class                                    | Class 8: Corrosive substances.                                 |
| *Classification code                         | C7   |
| *ADR packing group                           | III  |
| Hazard no. (ADR)                             | 80 Corrosive or slightly corrosive substance.                  |
| *Hazard no. (ADR)                            | 8  |
| HAZCHEM code                                 | 80   |
| *CEFIC TEC(R) no.                            | 80S2735-III; 80GC7-II+III                                      |
| <b>RAIL TRANSPORT (RID):</b>                 |  |
| *RID class no.                               | 8  |
| *RID packing group                           | III  |
| <b>SEA TRANSPORT (IMDG):</b>                 |  |
| *UN no. sea                                  | 2735   |
| *IMDG class                                  | 8  |
| *IMDG packing group                          | III  |
| *EmS no.                                     | F-A, S-B   |
| *MFAG table no.                              | 1  |
| *Marine pollutant                            | No.  |

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## 15. REGULATORY INFORMATION

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### Label for supply



|                       |   |
|-----------------------|---|
| <b>Contains</b>       | 3-aminomenthyl-3,5,5-trimethylcyclohexylamine<br>benzyl alcohol<br>2-piperazin-1-ylethylamine<br>Salicylic acid   |
| <b>Risk phrases</b>   | R-21/22 Harmful in contact with skin and if swallowed.<br>R-34 Causes burns.<br>R-43 May cause sensitization by skin contact.<br>R-52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  |
| <b>Safety phrases</b> | S-26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.<br>S-36/37/39 Wear suitable protective clothing, gloves and eye/face protection.<br>S-45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). |

S-61 Avoid release to the environment. Refer to special instructions/Safety Data Sheets.

P-5 Contains epoxy constituents. See information supplied by the manufacturer.

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## 16. OTHER INFORMATION

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### Explanations of R-phrases in Section 2

R-21/22 Harmful in contact with skin and if swallowed.

R-34 Causes burns.

R-43 May cause sensitization by skin contact.

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

R-20/22 Harmful by inhalation and if swallowed. R-22 Harmful if swallowed.

R-37/38 Irritating to respiratory system and skin.

R-41 Risk of serious damage to eye.

### \* Information revised since previous SDS version

#### Revision comments

This Safety Data Sheet has been upgraded to 2001/58/EC status.

#### Issued by

BD

#### Revision date

2025-10-11

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1.01

#### Rev. no./repl. SDS generated

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2025-10-11

#### Disclaimer

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

#### Printing date:

2025-10-11