

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

Product name Denpox Hardener

Applications For chemical/technical use.

Contact Dencoat

Emergency telephones E-mail: info@dencoat.com

Website: www.dencoat.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

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.

3. HAZARDS IDENTIFICATION

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.

4. FIRST AID MEASURES

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.

5. FIRE FIGHTING MEASURES

Extinguishing media	Water. Powder. Carbon dioxide (CO2). 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

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

7. HANDLING AND STORAGE

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective equipment



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

9. PHYSICAL AND CHEMICAL PROPERTIES

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

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

10. STABILITY AND REACTIVITY

Conditions to avoid	Avoid contact with acids. Avoid contact with strong oxidizers.
Hazardous decomposition products	Flammable gases/vapours/fumes of: Ammonia or amines.

11. TOXICOLOGICAL INFORMATION

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

12. ECOLOGICAL INFORMATION

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

13. DISPOSAL CONSIDERATIONS

Disposal methods	Confirm disposal procedures with environmental engineer and local regulations.
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14. TRANSPORT INFORMATION

Carriage transport labels



*Proper shipping name (national) POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Epoxide resin hardener)

*Proper shipping name (international) POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Epoxide resin hardener)

ROAD TRANSPORT (ADR):

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

RAIL TRANSPORT (RID):

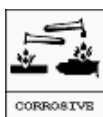
*RID class no. 8
 *RID packing group III

SEA TRANSPORT (IMDG):

*UN no. sea 2735
 *IMDG class 8
 *IMDG packing group III
 *EmS no. F-A, S-B
 *MFAG table no. 1
 *Marine pollutant No.

15. REGULATORY INFORMATION

Label for supply



Contains 3-aminomethyl-3,5,5-trimethylcyclohexylamine
 benzyl alcohol
 2-piperazin-1-ylethylamine
 Salicylic acid

Risk phrases 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.

Safety phrases S-26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S-36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
 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.

16. OTHER INFORMATION

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

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1.01

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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:

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