

1. IDENTIFICATION OF PREPARATION & OF COMPANY

Product: Epoxy Hardener
Manufacturer: Chemco International Ltd
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2. COMPOSITION INFORMATION ON INGREDIENTS

Epoxy cross-linking agent.

Chemicals	Classification	Risk phrases
Cycloaliphatic amine	C	R20/22, R34, R43, R52/53
Benzyl alcohol	Xn	R20/22
Isophorone diamine	C	R21/22, R34, R43

The remaining 30% of the composition is a blend of proprietary, non-hazardous chemicals that are trade secret.

3. HAZARDS IDENTIFICATION

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

4. FIRST AID MEASURES

Inhalation: Move to fresh air if effects occur. Seek medical attention.
Ingestion: Immediately give plenty of water (if possible charcoal slurry). Seek medical attention immediately. Do not induce vomiting. Fully trained personnel can use oxygen or artificial respiration if required.
Eyes: Rinse with flowing water immediately for at least 15 minutes. Seek medical attention.
Skin: Remove contaminated clothing. Flush with flowing water for at least 15 minutes. Wash affected area with soap and water. Seek medical attention if irritation persists.

5. FIRE-FIGHTING MEASURES

Extinguishing media: High volume water jet.
Extinguishing media (unsuitable): Water spray, carbon dioxide, dry powder, foam.
Hazardous decomposition products: Burning produces obnoxious and toxic fumes. Carbon oxides, nitrogen oxides (NOx).
Special fire-fighting protection: Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Do not breathe vapours. Keep away from sources of ignition. No smoking. Avoid contact with skin, eyes and clothing.
Environmental precautions:	Avoid subsoil penetration. Prevent product from entering drains. Do not contaminate surface water.
Methods for cleaning up:	Soak up with inert absorbent material such as sand and dispose of as hazardous waste.

7. HANDLING & STORAGE

Handling:	Provide sufficient air exchange and/or exhaust in work rooms. Handle and open container with care. Avoid formation of aerosol.
Storage:	Keep away from food, drink and animal feeding stuffs. Keep container tightly closed. Store at room temperature in the original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Technical measures/controls:	No special precautions required.
Exposure limits:	None.
Respiratory protection:	In case of insufficient ventilation, wear suitable respiratory equipment.
Eye protection:	Tightly fitting safety goggles. Face-shield.
Hand protection:	Rubber or plastic gloves.
Skin protection:	Protective suit. Safety shoes.
General protection:	Keep away from sources of ignition. No smoking. Avoid contact with skin, eyes and clothing.

9. PHYSICAL & CHEMICAL PROPERTIES

Physical state:	Liquid.
Colour:	Yellow clear.
Odour:	Amine-like.
pH:	11.1 in water.
Boiling point:	175°C
Thermal decomposition:	> 96°C
Flash point:	117°C (DIN 51758).
Solubility:	Partly soluble in or with water @ 20°C
Density:	1.05g/cm ³ @ 25°C
Vapour pressure:	< 2 Pa @ 20°C
Viscosity:	Dynamic 100 - 300mPa.s @ 25°C

10. STABILITY & REACTIVITY

Materials to avoid:	Acids, bases and oxidising agents.
Conditions to avoid:	Take necessary action to avoid static electricity discharges.
Hazardous decomposition products:	Burning produces obnoxious and toxic fumes. Carbon oxides, nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

Acute toxicity (lethal dose) Oral:	Approx. 1500mg.kg ⁻¹ LD50	(rat).
Acute toxicity Irritation:		
Eyes:	Corrosive.	(rabbit).
Skin:	Corrosive.	(dermal rabbit).
Sensitisation:	Causes sensitisation.	(dermal guinea pig).

12. ECOLOGICAL INFORMATION

Degradability:	Avoid subsoil penetration. Do not let product enter drains. Do not contaminate surface water.
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13. DISPOSAL CONSIDERATIONS

Product:	Must be incinerated, when in compliance with local regulations.
Container:	Empty containers can be land-filled after cleaning, when in compliance with the Environmental Protection (Duty of Care) Regulations 1991.

14. TRANSPORT INFORMATION

Proper shipping name:	Amines, liquid, corrosive, n.o.s. (Cycloaliphatic amines)		
Road/rail ADR/RID Class:	8	ADR/RID Item No:	53c
Hazard No:	80	Trem Card:	80G15
UN No:	UN 2735		
Sea IMDG Class:	8	IMDG Code Page:	8109-2
UN No:	UN 2735	Packing Group:	III
Air IATA/ICAO Class:	8	Packing Group:	III
UN No:	UN 2735		
Packing Instruction (Pass & Cargo):	818	Packing Instruction (Cargo):	820

15. REGULATORY INFORMATION

Chemical name:	Cycloaliphatic amine.
Labelling:	According to EEC directives relating to packaging and labelling of dangerous substances and UK Chemicals Hazard Information and Packaging for Supply (CHIPS) legislation.
Symbols:	(C) Corrosive.
Risk phrases:	R20/21/22, Harmful by inhalation and if swallowed. R34, Causes burns.
Risk phrases:	R43, May cause sensitisation by skin contact. R52/53, Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Safety phrases:	S26, In case of contact with eyes, wash immediately with plenty of water and seek medical advice. S28, After contact with skin, wash immediately with plenty of water. S36/37/39, Wear suitable protective clothing, gloves, eye and face protection. S45, In case of accident or if you feel unwell, seek medical attention immediately (show the label where possible).

16. OTHER INFORMATION

The information contained in this data sheet is based on present state of knowledge and current national legislation (CHIPS). It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for the particular applications.