



MATERIAL SAFETY DATA SHEET

PART NUMBER 11 10 66

SECTION 1 PRODUCT IDENTIFICATION AND MANUFACTURE

Company Metprep Limited
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PRODUCT EPO-FLO HARDENER

SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical nature

Aliphatic amine adduct

Hazardous components

Chemical Name	CAS-No.	Symbol(s):	R-phrases(s)	Concentration[%]
Isophorone diamine EC-No: 220-666-8	2855-13-2	C	R21/22 R34 R43 R52/53	39.00 – 51.00
Trimethylhexamethylenediamine	25620-58-0	C	R22 R34 R43 R52/53	14.00 - 28.00

SECTION 3 SUBSTANCE HAZARD IDENTIFICATION

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



SECTION 4 FIRST AID MEASURES

Inhalation	Move to fresh air. Call a physician immediately.
Eye contact	Rinse immediately with plenty of water for at least 15 minutes. If eye irritation persists, consult a specialist.
Skin contact	Wash off immediately with soap and plenty of water. If skin irritation persists, call a doctor
Ingestion	Do not induce vomiting Immediately give plenty of water (if possible charcoal slurry) Obtain medical attention

SECTION 5 FIRE FIGHTING MEASURES

Suitable extinguishing Media	Water spray. Drypowder. Carbon dioxide (CO2) Foam.
Extinguishing media which Must not be used for safety reasons	High Volume water jet
Special protective Equipment for fire-fighters	Wear self-contained breathing apparatus and protective suit.
Further information	Burning produces obnoxious and toxic fumes. Carbon oxides & Nitrogen oxides

SECTION 6 ACCIDENTAL RELEASE MEASURES

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

SECTION 7 HANDLING AND STORAGE

Handling

Advice on safe handling	Provide sufficient air exchange and/or exhaust in work rooms. Handle and open container with care.
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Storage

Further information on storage conditions	Keep away from food, drink and animal feeding stuffs. Keep container tightly closed. Keep at temperatures between 2 and 40°C.
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SECTION 8 EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering measures

No special precautions required.

Personal protective equipment

Respiratory protection

In case of insufficient ventilation wear suitable respiratory equipment.
Filter type AX-P2 (organic vapours, particles)

Eye protection

Tightly fitting safety goggles.

Hand protection

Material of gloves for long term application (BTT > 480 min):
Butyl rubber
Ethyl Vinyl Alcohol Laminate (EVAL)
Material of gloves for short term/splash application (10 min < BTT < 480 min):
Nitrile rubber Neoprene rubber
Use gloves approved to relevant standards e.g. EN 374 (Europe), F739 (US).
Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material and dexterity. Always seek advice from glove suppliers. Additional information can be found for instance at www.gisbau.de

Skin and body protection

Protective suit. Safety Shoed

Hygiene measures

Keep away from food, drink and animal feeding stuffs.
Wash hands before breaks and immediately after handling the product.

Protective measures

Keep away from sources of ignition - No smoking.
Avoid contact with skin, eyes and clothing.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Form	liquid
Colour	light yellow
Odour	clear amine-like
pH	approx at (20°C) 1:1 in water
Boiling point	> 200 °C
Thermal decomposition Flash point	> 200 °C
Flash point	> 120 °C
	Method: DIN 51758
Vapour pressure	< 6 Pa at 20 °C
Density	0.95 g/cm ³ at 25 °C
Water solubility	at 20 °C Note: partly soluble
Miscibility with water	immiscible at 20 °C
Viscosity, dynamic	150 mPa.s at 25 °C



SECTION 10 STABILITY AND REACTIVITY PROPERTIES

Conditions to avoid Note: Take necessary action to avoid static electricity discharge.

Materials to avoid Strong acids and strong bases.
Strong oxidizing agents.

Hazardous decomposition Products Carbon oxides. Burning produces obnoxious and toxic fumes.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute oral toxicity LD50 rat Dose 950 mg/kg

Eye irritation corrosive, rabbit

Skin irritation corrosive, rabbit, dermal

Sensitization Causes sensitization
Quinea pig
Dermal

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity effects

Additional ecological Avoid subsoil penetration.

Information Prevent product from entering the drains
Do not contaminate surface water.

SECTION 13 DISPOSAL CONSIDERATIONS

Product Waste key number 070204
Must be incinerated, when in compliance with local regulations

Container Empty containers can be land filled after cleaning, when in
Compliance with Environmental Protection (duty of care)
Regulations 1991.

**SECTION 14****TRANSPORT INFORMATION****Land Transport**

ADR:
Un-No: 2289
Class: 8
Classification code C7
Packaging Group III
Risk No: 80
ADR/RID- Labels 8
Proper Shipping Name: Isophoronediamine Solution

Sea Transport

IMDG
UN-No: 2289
Class: 8
Packaging group III
ADR/RID Labels 8
MFAG:
EmS: F-A-S-B
Proper shipping name Isophoronediamine Solution

Air Transport

IATA-DGR
UN/ID No: UN2289
Class: 8
Packaging Group III
Packing instruction 820
(Cargo aircraft)
Max. Qty/Pack 60.00L
(999.00 = No Limit)
Packing Instruction 818
(passenger aircraft)
Max. Qty/Pack 5.00L
ADR/RID Labels 8
Proper shipping name: Isophoronediamine Solution

**SECTION 15****REGULATORY INFORMATION****Labelling according to EEC Directive****Labelling required**

Symbol(s):	C	Corrosive
R-phrase(s)	R21/22 R34 R43 R52/53	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.
S-phrase(s)	S26 S36/37/39 S45 S61	In case of contact with eyes, rinse immediately with Plenty of water and seek medical advice. Wear suitable protective clothing, gloves and Eye/face protection. In case of accident or if you feel unwell, seek medical Advice immediately. Avoid release to the environment. Refer to special Instructions/safety data sheets.
Hazardous components Which must be listed on the label:	isophorone diamine EC-No: 220-666-8	

SECTION 16**OTHER INFORMATION**

R21/22	Harmful in contact with skin and if swallowed. Harmful if swallowed.
R22	Harmful if swallowed.
R34	causes burns
R43	May cause sensitization by skin contact
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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