



EpiMax MATERIAL SAFETY DATA SHEET

Product Name **EPIMAX 333 HARDENER**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Supplier Name EPIMAX TECHNOLOGIES PTY LTD
Address 4/3 Moorebank Avenue, Moorebank, NSW, AUSTRALIA, 2170
Telephone 1300 721 522
Fax (02) 9904 3207
Emergency 1300 721 522
Synonym(s) 333 HARDENER • 5033320 - PRODUCT CODE
Use(s) HARDENER FOR EPOXY RESIN SYSTEM • TWO COMPONENT EPOXY SYSTEM
SDS Date 30/11/11

2. HAZARDS IDENTIFICATION

RISK PHRASES

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R34 Causes burns.
R43 May cause sensitisation by skin contact.

SAFETY PHRASES

S24/25 Avoid contact with skin and eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S38 In case of insufficient ventilation, wear suitable respiratory equipment.
S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).

UN No.	1760	DG CLASS	8	Subsidiary Risk(s)	None Allocated
Packing Group	II	Hazchem Code	2X		

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	Formula	CAS NO.	Content
ISOPHORONE DIAMINE	C10-H22-N2	2855-13-2	>50%
BENZYL ALCOHOL	C7-H8-O	100-51-6	30-50%
M-PHENYLENEBIS (METHLAMINE)	C8-H12-N2	1477-55-0	5-15%

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4. FIRST AID MEASURES

Eye	If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.
Inhalation	If inhaled, remove from contaminated area. To protect rescuer, use a Type A (Organic vapour) respirator or an Airline respirator (in poorly ventilated areas). Apply artificial respiration if not breathing.
Skin	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.
Ingestion	For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.
Special Treatment	Treat symptomatically.
First Aid Facilities	Eye wash facilities and safety shower should be available

5. FIRE FIGHTING MEASURES

Special Hazards	Combustible. May evolve toxic gases (carbon/ nitrogen oxides, amines, ammonia, hydrocarbons) when heated to decomposition.
Advice for firefighters	Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.
Extinguishing Media	Dry agent, carbon dioxide or foam. Prevent contamination of drains or waterways.
Hazchem Code	2X

6. ACCIDENTAL RELEASE MEASURES

Spillage	Contact emergency services where appropriate. Use personal protective equipment. Clear area of all unprotected personnel. Ventilate area where possible. Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal. Eliminate all ignition sources.
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7. STORAGE AND HANDLING

Storage	Store in a cool, dry, well ventilated area, removed from oxidising agents, alkalis, acids, heat or ignition sources and foodstuffs. Ensure packages are adequately labelled, protected from physical damage and sealed when not in use.
Precautions for safe handling	Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTIONS

Exposure Stds

Ingredient	Reference	TWA		STEL	
m-Xylene-a,a'-diamine	SWA (AUS)	--	0.1 mg/m ³	--	--

Biological Limits No biological limit allocated.

Engineering Controls Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended.

PPE Wear splash-proof goggles, nitrile or viton (R) gloves, coveralls and a Type A (Organic vapour) respirator. If sanding dry product, wear: a Class P1 (Particulate) respirator. If spraying, with prolonged use, or if in confined areas, wear: impervious coveralls and an Air-line respirator.



9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	CLEAR LIQUID	Solubility (water)	NOT AVAILABLE
Odour	SLIGHTLY AMMONIACAL ODOUR	Specific Gravity	1.00 – 1.03
pH	NOT AVAILABLE	% Volatiles	<1%
Vapour Pressure	NOT AVAILABLE	Flammability	CLASS C1 COMBUSTIBLE
Vapour Density	NOT AVAILABLE	Flash Point	112°C
Boiling Point	NOT AVAILABLE	Upper Explosion Limit	NOT AVAILABLE
Melting Point	NOT AVAILABLE	Lower Explosion Limit	NOT AVAILABLE
Evaporation Rate	NOT AVAILABLE		
Autoignition Rate	NOT AVAILABLE	Decomposition Temperature	NOT AVAILABLE
Partition Coefficient	NOT AVAILABLE	Viscosity	NOT AVAILABLE

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended conditions of storage.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources.
Material to avoid	Incompatible with oxidising agents (eg. hypochlorites), acids (eg. nitric acid), alkalis (eg. hydroxides), heat and ignition sources.
Hazardous Decomposition Products	May evolve toxic gases (carbon/ nitrogen oxides, amines, ammonia, hydrocarbons) when heated to decomposition.
Hazardous Reactions	Hazardous polymerization is not expected to occur.

Product Name: EPIMAX 333 HARDENER

11. TOXICOLOGICAL INFORMATION

Health hazard summary	Corrosive. This product has the potential to cause adverse health effects. Use safe work practices to avoid eye or skin contact and inhalation. Potential sensitising agent. Individuals with pre-existing respiratory impairment (eg asthmatics) or skin sensitivities may be more susceptible to adverse health effects.
Eye	Corrosive - irritant. Contact may result in irritation, lacrimation, pain, redness, corneal burns and possible permanent damage.
Inhalation	Corrosive. Over exposure may result in irritation of the nose and throat, coughing, burning sensation, nausea and dizziness. May cause sensitisation by inhalation. High level exposure may result in breathing difficulties, ulceration, pulmonary oedema and unconsciousness.
Skin	Slightly corrosive. Contact may result in irritation, redness, pain, rash, dermatitis and possible burns. May cause sensitisation by skin contact.
Ingestion	Corrosive. Ingestion may result in burns to the mouth and throat, nausea, vomiting, ulceration of the gastrointestinal tract, breathing difficulties, circulatory collapse and coma.
Toxicity Data	ISOPHORONE DIAMINE (2855-13-2) LD50 (Ingestion): 500 - 1080 mg/kg (rat) LD50 (Skin): 730 - 1090 mg/kg (rabbit) BENZYL ALCOHOL (100-51-6) LCLo (Inhalation): 1000 ppm/8 hours (rat) LD50 (Ingestion): 1230 mg/kg (rat) LD50 (Skin): 2000 mg/kg (rabbit) LDLo (Skin): 10 g/kg (cat) M-PHENYLENEBIS(METHYLAMINE) (1477-55-0) LC50 (Inhalation): 700 ppm/1 hour (rat) LD50 (Ingestion): 930 mg/kg (rat) LD50 (Skin): 2000 mg/kg (rabbit)

12. ECOLOGICAL INFORMATION

Other adverse effects	Limited ecotoxicity data was available for this product at the time this report was prepared. Ensure appropriate measures are taken to prevent this product from entering the environment.
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13. DISPOSAL CONSIDERATIONS

Waste disposal	Mix parts A + B together (small amounts), absorb with sand, vermiculite or similar and dispose of to an approved landfill site. Ensure protective equipment is worn when mixing. Do not seal containers/tins until reaction is complete. Contact the manufacturer for additional information. Prevent contamination of drains or waterways as environmental damage may result.
Legislation	Dispose of in accordance with relevant local legislation.

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14. TRANSPORT INFORMATION



CLASSIFIED AS A DANGEROUS GOOD THE CRITERIA OF THE ADG CODE

Shipping Name	CORROSIVE LIQUID, N.O.S				
UN No.	1760	DG CLASS	8	Subsidiary Risk(s)	NONE ALLOCATED
Packing Group	II	Hazchem Code	2X	GTEPG	8A1

IATA

Shipping Name	CORROSIVE LIQUID, N.O.S				
UN No.	1760	DG CLASS	8	Subsidiary Risk(s)	NONE ALLOCATED
Packing Group	II				

IMDG

Shipping Name	CORROSIVE LIQUID, N.O.S				
UN No.	1760	DG CLASS	8	Subsidiary Risk(s)	NONE ALLOCATED
Packing Group	II				

15. REGULATORY INFORMATION

Poison Schedule Classified as a Schedule 5 (S5) Poison using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

AICS All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

Additional information This product is used in conjunction with Epimax 333 Compound.
WELDING - SANDING - CUTTING DRIED OR CURED PRODUCT: If sanding, cutting or welding dried or cured product, adverse health effects may be avoided by the use of appropriate engineering controls and/or personal protective equipment. If welding, wear a Class P2 (Metal fume) respirator and depending on the nature of the surface being welded, additional protection (eg. for organic vapours/acid gas) may also be required. A Class P1 (Particulate) respirator is recommended if dust is generated.

RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

ABBREVIATIONS:

ACGIH - American Conference of Industrial Hygienists.

ADG - Australian Dangerous Goods.

BEI - Biological Exposure Indice(s).

CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.

Product Name:

EPIMAX 333 HARDENER

CNS - Central Nervous System.

EC No - European Community Number.

HSNO - Hazardous Substances and New Organisms.

IARC - International Agency for Research on Cancer.

mg/m³ - Milligrams per Cubic Metre.

NOS - Not Otherwise Specified.

pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).

ppm - Parts Per Million.

RTECS - Registry of Toxic Effects of Chemical Substances.

STEL - Short Term Exposure Limit.

WA - Safe Work Australia.

WA - Time Weighted Average.