

1. IDENTIFICATION

Product Name: Bio Epoxy Fast Hardener
Other names: N/A
Product Use Description: Used in conjunction with epoxy resin for adhesive and composites applications.

Contact Information:

Organisation	Location	Telephone	Ask For
Adelaide Moulding and Candle Supplies	1 Woodlands Terrace, Edwardstown SA 5039	08 8294 0451	SDS Officer
Poisons Information Centre		13 11 26	

2. HAZARD IDENTIFICATION

Hazard Classification (GHS): Skin Corrosion (Category 1)
 Serious Eye Damage (Category 1)
 Acute toxicity, oral (Category 4)
 Acute toxicity, dermal (Category 4)
 Skin sensitisation (Category 1)
 Specific Target Organ Toxicity – Repeated Exposure (Category 2)
 Acute aquatic toxicity (Category 2)
 Chronic aquatic toxicity (Category 2)

GHS Label elements, including precautionary statements

Pictogram:



Signal Word: Danger

Hazard statement(s): H302 Harmful if swallowed
 H313 Harmful in contact with skin
 H314 Causes severe burns and eye damage
 H317 May cause allergic skin irritation.
 H373 May cause damage to organs (Kidney, Liver, Blood) through prolonged or repeated exposure if swallowed.
 H411 Toxic to aquatic life with long lasting effects.

Precautionary statement(s): P261 Avoid breathing dust / fumes / gas / mist / vapours / spray/
 P270 Do not eat, drink, or smoke when using this product.
 P280 Wear protective gloves / eye protection / face protection.

Response: P302 + P361 + P353 IF ON SKIN (or hair): Remove / take off immediately all contaminative clothing.
 Rinse skin with water/ shower.
 P301 + P330 + P331 IF SWALLOWED: Rinse mouth. DO NOT induce vomiting
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.
 Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 Immediately call a POISON CENTER or doctor / physician.
 P333 + P313 If skin irritation or rash occurs: Get medical advice / attention.
 P363 Wash contaminated clothing before reuse.

Disposal: P501 Dispose of contents / container to an approved waste disposal plant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Weight %
3-Aminomethy-3,5,5-trimethylcyclohexylamine	2855-13-2	30 - 60

Modified Amine Adduct	-	30 - 60
Benzyl Alcohol	100-51-6	30 - 60
Polyamines	-	<10
Other ingredients determined not to be hazardous	-	To 100

Chemical family: ISOPHORONEDIAMINE

4. FIRST AID MEASURES

General Advice:	Seek medical advice. If breathing has stopped or is laboured give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped begin cardiopulmonary resuscitation immediately.
Inhalation:	Remove the source of contamination or move the victim to fresh air. Ensure airways are clear and have qualified person give oxygen through a face mask if breathing is difficult. If symptoms develop and persist seek medical attention.
Ingestion:	DO NOT INDUCE VOMITING. Immediately wash out mouth with water. If symptoms persist seek medical attention.
Skin:	Wash affected area thoroughly with soap and water. Remove contaminated clothing and wash before reuse or discard. If symptoms develop seek medical attention.
Eye:	If contact with the eye(s) occurs, wash with copious amounts of water holding eyelid(s) open. Take care not to rinse contaminated water unto the non-affected eye. If symptoms persist seek medical attention.
First Aid Facilities:	Eye wash and normal wash room facilities.
Advice to Doctor:	Treat symptomatically
Other Information:	For advice, contact a Poisons Information Center (Phone e.g Australia 131 126)

5. FIRE FIGHTING MEASURES

Suitable extinguishing media:	Use water spray, carbon dioxide, dry chemical or foam.
Hazards from Combustion Products:	Under fire conditions this product may emit toxic and/or irritating fumes including Oxides of Carbon and Oxides of Nitrogen.
Precautions in connection with Fire:	Full protective clothing and self-contained breathing apparatus. Operated in a positive pressure mode. Water spray may be used to keep fire exposed containers cool.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures:	Wear appropriate personal protective equipment and clothing to minimise exposure. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unnecessary personnel. If possible, contain the spill. Place inert absorbent material onto spillage. Use clean non-sparking tools to collect the material and place in a suitable labelled container. Do not dilute material but contain. Dispose of waste according to federal, Environmental Protection Authority and state regulations. If the spillage enters the waterways contact the Environmental Protection Authority, or your local Waste Management Authority.
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7. HANDLING AND STORAGE

Precautions for Safe Handling:	Do not get into eyes, on skin or clothing. Use only with adequate ventilation. Avoid contact with skin, eyes, and clothing. Avoid prolonged or repeated contact with skin, eyes, and clothing. Wash thoroughly after handling. DANGER. Corrosive to the eyes, corrosive to the skin. Maybe harmful if swallowed. Causes respiratory tract irritation. May cause skin sensitisation. Containers, even those that have been emptied, can contain hazardous product residues. Wash with soap and water before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Launder contaminated clothing before reuse. Contaminated leather articles, including shoes cannot be decontaminated and should be destroyed to prevent reuse.
Conditions for Safe Storage:	Store under inert gas. Moisture sensitive. Sensitive to Carbon Dioxide. Keep container tightly closed in a dry and well ventilated place out of direct sunlight. Keep containers closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards:	No exposure standards have been established for this material by the Australian National Occupational Health and Safety Commission (NOHSC) or the Occupational Safety and Health Service (OHS) of the New Zealand Department of Labour.
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However, exposure standards for ingredients are stated below: Australian National Occupational Health and Safety Commission (NOHSC) exposure standards:

Biological Limit Values:	No biological limit allocated.
Engineering Controls:	Provide sufficient ventilation to keep airborne levels below the exposure limit. Where vapours or mist are generated, particularly in enclosed areas, and natural ventilation is inadequate, a local exhaust ventilation system is required. Provide readily accessible eye wash stations and safety showers.
Respiratory Protection:	Where ventilation is inadequate the use of an Air Purifying Respirator with a replaceable organic vapour filter complying with AS/NZS 1715 and AS/NZS 1716 is recommended.
Eye Protection:	Safety glasses with side shields, goggles or full-face shield as appropriate recommended. Final choice of appropriate eye/face protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 – Eye protectors for Industrial Applications.
Hand Protection:	Wear gloves of impervious material such as impervious PVC or rubber gloves. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1 Occupational protection gloves – Selection use and maintenance.
Body Protection:	Suitable work wear should be worn to protect personal clothing. Industrial clothing should conform to the specifications detailed in AS/NZS 2919: Industrial Clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Low viscosity liquid
Colour:	Clear
Odour:	Amine like
Ph:	Not Available
Melting Point:	Not Available
Flash Point:	110°C (Closed Cup)
Boiling Point:	>247°C
Vapour Density:	Not Available
Vapour Pressure:	0.0157 hPa @ 20°C (OECD Test Guideline 104)
Density:	0.95 to 1.00
Auto-Ignition Temperature:	Not Available
Flammable Limits – Lower:	Not Available
Flammable Limits – Upper:	Not Available

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions.
Conditions to Avoid:	Extremes of temperature and direct sunlight. Exposure to water vapour.
Incompatible Materials:	Strong oxidising agents
Hazardous Decomposition Products:	Nitrogen oxides Carbon Monoxide Carbon Dioxide

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity:	LD50 Oral Rat, male >500 mg/kg (ATEmix)
Acute dermal Toxicity:	LD50 Dermal Rat, male and female > 1,100 mg/kg (ATEmix)
Inhalation:	No data available.
Ingestion:	If ingested, severe burns of the mouth and throat.
Skin:	ISOPHORONEDIAMINE Skin Rabbit Result – causes burns – 24 h Maximisation Test – Guinea Pig Result – May cause sensitisation by skin contact (OECD Test Guideline 406)
Eyes:	ISOPHORONEDIAMINE Rabbit Result – Corrosive to eyes – 24 h (OECD Test Guideline 405)

Chronic Effects:	Prolonged or repeated contact may result in irritation and/or allergic contact dermatitis.
Chronic toxicity or effects from long term exposures	
Carcinogenicity:	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity:	No data available
Germ cell Mutagenicity:	Assessment of mutagenicity: No mutagenic effect was found in various tests with bacteria and mammalian cell culture. The substance was not mutagenic in a test with mammals.
Specific target organ systemic toxicity (single exposure)	No data available
Specific target organ systemic toxicity (repeated exposure)	No data available
Aspiration hazard:	No data available

12. ECOLOGICAL INFORMATION

Toxicity to fish:	Semi-static test LC50 – <i>Leuciscus idus</i> (Golden Orfe) - 110 mg/l - 96.0 h
Toxicity to daphnia and other aquatic invertebrates:	Immobilisation EC50 – <i>Daphnia Magna</i> (Water Flea) – 23 mg/l – 48 h (OECD Test Guideline 202)
Toxicity to Algae:	Static test EC50 – <i>Desmodesmus Subspicatus</i> (Green Algae) 37 mg/l – 72 h
Toxicity to bacteria:	EC10 – <i>Pseudomonas Putida</i> - 1,120 mg/l – 18h
Persistence / Degradability	Not available.
Mobility	Not available.
Environmental Protection:	Do not allow product to enter drains, waterways or sewers.
Other adverse effects:	Acutely harmful to aquatic life

13. DISPOSAL CONSIDERATIONS

Disposal Considerations:	Dispose of waste according to federal, EPA and state regulations. Do not allow product to enter drains, waterways or sewers.
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14. TRANSPORT INFORMATION

ADG	UN/ID No : UN2289 Proper shipping name : ISOPHORONEDIAMINE Class : 8 Packing Group : III Marine Pollutant : No
IATA	UN/ID No : UN2289 Proper shipping name : ISOPHORONEDIAMINE Class : 8 Packing Group : III Marine Pollutant : No ERG : 8L
IMDG	UN/ID No : UN2289 Proper shipping name : ISOPHORONEDIAMINE Class : 8 Packing Group : III Marine Pollutant : No EmS : F-A,S-B
RID / ADR	UN/ID No: UN2289 Proper shipping name: ISOPHORONEDIAMINE Class: 8 Packing Group: III

EAC: 2X
HIN: 80
Marine Pollutant: Yes

15. REGULATORY INFORMATION

Regulatory Information: Australia: Classified as hazardous according to criteria of National Occupational Health and Safety Commission (NOHSC).

Poisons Schedule: Schedule 5

16. OTHER INFORMATION

The details in this safety data sheet satisfy national and EC legislation. We have no knowledge or control over the user's working conditions. However, the product may not be used for any purpose other than that specified in chapter 1 unless written consent has been obtained. The user is responsible for the observance of all required statutory provisions.

This data is based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. It is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as a guarantee of any specific property of the product.

As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this product. Information contained herein is believed to be true and accurate, but all statements or suggestions made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.

This bulletin cannot cover all possible situations that the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. It is your responsibility to develop appropriate work practice guidelines and employee instructional programs for your operation.