

## 1. IDENTIFICATION

**Product Name:** Bio Epoxy Slow 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):** Acute toxicity, Oral (Category 4)  
 Acute Toxicity, Dermal (Category 4)  
 Serious Eye Damage (Category 1)  
 Acute Aquatic Toxicity (Category 2)  
 Chronic Aquatic Toxicity (Category 2)

**Non Dangerous Goods for transport according to ADG-7 (Special Provision AU01)**

**GHS Label elements, including precautionary statements**

**Pictogram:**



**Signal Word:** Danger

**Hazard statement(s):** H302 Harmful if swallowed  
 H312 Harmful in contact with skin  
 H318 Causes serious eye damage  
 H402 Harmful to aquatic life  
 H411 Toxic to aquatic life with long lasting effects

**Precautionary statement(s):** P280 Wear protective gloves / protective clothing / eye protection / face protection  
 P273 Avoid release into the environment  
 P260 Do not breathe dust or mist  
 P270 Do not eat, drink or smoke when using this product  
 P264 Wash with plenty of water and soap thoroughly after handling

**Response:** P301 + P330 + P331 IF SWALLOWED: Rinse mouth. DO NOT induce vomiting  
 P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes.  
 Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER / doctor  
 P303 + P361 + P353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing.  
 Rinse skin with water/shower.  
 P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position of comfort for breathing.  
 P310 Immediately call a POISON CENTER or doctor / physician.  
 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 %
Trimethylolpropane poly(oxypropylene) triamine	39423-51-3	>70

Other ingredients determined not to be hazardous	-	0 - 10
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Chemical family: ISOPHORONEDIAMINE

## 4. FIRST AID MEASURES

<b>General Advice:</b>	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.
<b>Inhalation:</b>	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.
<b>Ingestion:</b>	DO NOT INDUCE VOMITING. Immediately wash out mouth with water. If symptoms persist seek medical attention.
<b>Skin:</b>	Wash affected area thoroughly with soap and water. Remove contaminated clothing and wash before reuse or discard. If symptoms develop seek medical attention.
<b>Eye:</b>	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.
<b>First Aid Facilities:</b>	Eye wash and normal wash room facilities.
<b>Advice to Doctor:</b>	Treat symptomatically
<b>Other Information:</b>	For advice, contact a Poisons Information Center (Phone e.g Australia 131 126)

## 5. FIRE FIGHTING MEASURES

<b>Suitable extinguishing media:</b>	Use water spray, carbon dioxide, dry chemical or foam.
<b>Hazards from Combustion</b>	Under fire conditions this product may emit toxic and/or irritating fumes including carbon oxides and nitrogen oxides.
<b>Precautions in connection with Fire:</b>	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

<b>Emergency Procedures:</b>	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

<b>Precautions for Safe Handling:</b>	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.
<b>Conditions for Safe Storage:</b>	Store in a cool, dry, well-ventilated area out of direct sunlight. Keep containers closed when not in use.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>National Exposure Standards:</b>	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. However, exposure standards for ingredients are stated below: Australian National Occupational Health and Safety Commission (NOHSC) exposure standards:
<b>Biological Limit Values:</b>	No biological limit allocated.
<b>Engineering Controls:</b>	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.

<b>Respiratory Protection:</b>	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.
<b>Eye Protection:</b>	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.
<b>Hand Protection:</b>	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.
<b>Body Protection:</b>	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

<b>Form:</b>	Liquid
<b>Colour:</b>	Light yellow
<b>Odour:</b>	Not Available
<b>Ph:</b>	11.6
<b>Melting Point:</b>	Not Determined
<b>Flash Point:</b>	118°C – Closed Cup – ISO 2719
<b>Boiling Point:</b>	Not Available
<b>Vapour Density:</b>	Not Available
<b>Vapour Pressure:</b>	6.82 hPa (20°C)
<b>Density:</b>	0.93 to 1.00
<b>Auto-Ignition Temperature:</b>	Not Available
<b>Flammable Limits – Lower:</b>	Not Available
<b>Flammable Limits – Upper:</b>	Not Available

## 10. STABILITY AND REACTIVITY

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

## 11. TOXICOLOGICAL INFORMATION

<b>Acute oral toxicity:</b>	LD50 Oral Rat, male >550 mg/kg
<b>Acute dermal Toxicity:</b>	LD50 Dermal Rat, male and female > 1,000 mg/kg
<b>Acute Inhalation Toxicity:</b>	No data available.
<b>Inhalation:</b>	May give off gas, vapour or dust that is very irritating or corrosive to the respiratory system.
<b>Ingestion:</b>	If ingested, severe burns of the mouth and throat.
<b>Skin:</b>	Causes skin burns.
<b>Eyes:</b>	Causes eye burns. May cause blindness.
<b>Chronic Effects:</b>	Prolonged or repeated contact may result in irritation and/or allergic contact dermatitis.
<b>Chronic toxicity or effects from long term exposures</b>	
<b>Carcinogenicity:</b>	IARC: 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.
<b>Reproductive toxicity:</b>	No data available on the product itself.
<b>Germ cell Mutagenicity:</b>	Animal testing did not show any mutagenic effects. Result: Not mutagenic in Ames Test.
<b>Specific target organ systemic toxicity (single exposure)</b>	Skin - Rabbit Result: Corrosive, category 1C – where responses occur after exposure between 1 hour and 4 hours and observations up to 14 days. (OECD Test Guidelines 404)

	Eyes – Rabbit Result: Corrosive to eyes (OECD Test Guideline 405)
<b>Specific target organ systemic toxicity (repeated exposure)</b>	Rat – Dermal – no observed adverse effect level – 250 mg/kg Rat – Oral – no observed adverse effect level – 239 mg/kg
<b>Additional information:</b>	Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Cough, shortness of breath, headache, nausea.

## 12. ECOLOGICAL INFORMATION

<b>Toxicity to fish:</b>	Semi-static test LC50 – Oncorhynchus mykiss (rainbow trout) >15mg/l – 96h Static test NOEC – Oncorhynchus mykiss (rainbow trout) 15mg/l – 96h
<b>Toxicity to daphnia and other aquatic invertebrates:</b>	Static test EC50 – Daphnia 80mg/l – 48h (OECD Test Guideline 202) NOEC Daphnia 18mg/l – 48h
<b>Persistence / Degradability</b>	Biodegradability Result: 0% - According to the results of tests of biodegradability this product is not readily biodegradable. (OECD Test Guideline 301B)
<b>Mobility</b>	Not available.
<b>Environmental Protection:</b>	Do not allow product to enter drains, waterways or sewers.

## 13. DISPOSAL CONSIDERATIONS

<b>Disposal Considerations:</b>	Dispose of waste according to federal, EPA and state regulations.
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## 14. TRANSPORT INFORMATION

<b>ADG</b>	UN/ID No : UN3082 Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (TRIMETHYLOLPROPANE POLYOXYPROPYLENE TRIAMINE) Class : 9 Packing Group : III Marine Pollutant : Yes Hazchem Code : 3Z
<b>IATA</b>	UN/ID No : UN3082 Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (TRIMETHYLOLPROPANE POLYOXYPROPYLENE TRIAMINE) Class : 9 Packing Group : III Labels : Miscellaneous Packing Instruction (Cargo aircraft) : 964 Packing Instruction (Passenger aircraft) : 964 Marine Pollutant : Yes
<b>IMDG</b>	UN/ID No : UN3082 Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (TRIMETHYLOLPROPANE POLYOXYPROPYLENE TRIAMINE) Class : 9 Packing Group : III Labels : 9 EmS Code : F-A,S-F Marine Pollutant : Yes
<b>RID / ADR</b>	UN/ID No : UN3082 Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (TRIMETHYLOLPROPANE POLYOXYPROPYLENE TRIAMINE) Class : 9 Packing Group : III Marine Pollutant : Yes Hazchem Code : 3Z

## 15. REGULATORY INFORMATION

**Regulatory Information:** Australia: AICS On the inventory, or in compliance with the inventory.

## 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.