

### Epoxy Ceramic Adhesive

## Safety Data Sheet

Hazardous Chemical, Dangerous Goods

### 1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

PRODUCT NAME	Megadure Ceramic Standard - Part B
RECOMMENDED USE	Adhesive for protection of equipment in mines, coal-fired plants.
SUPPLIER	Vivacity Engineering Pty Ltd.
ABN	78 305 545 664
STREET ADDRESS	3 Sefton Road Thornleigh NSW 2120 Australia
TELEPHONE	+61 2 9875 3044
EMAIL	info@megapoxy.com
EMERGENCY TELEPHONE NUMBER	+61 2 9875 3044 Australia: 13 11 26 (Poisons Information Centre) New Zealand: 0800 764 766 (NZ Poisons & Hazardous Chemicals Centre)

### 2. HAZARDS IDENTIFICATION

This material is hazardous according to health criteria of Safe Work Australia GHS 7.



SIGNAL WORD	Danger
HAZARD CLASSIFICATIONS	Acute Toxicity - Oral - Category 4 Acute Toxicity - Dermal - Category 4 Skin Corrosion/Irritation - Category 1B Serious Eye Damage/Irritation - Category 1 Sensitisation - Skin - Category 1 Chronic Hazard to the Aquatic Environment - Category 3

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<b>HAZARD STATEMENTS</b>	H302	Harmful if swallowed.
	H312	Harmful in contact with skin.
	H314	Causes severe skin burns and eye damage.
	H317	May cause an allergic skin reaction.
	H318	Causes serious eye damage.
	H412	Harmful to aquatic life with long lasting effects.
<b>PREVENTION PRECAUTIONARY STATEMENTS</b>	P261	Avoid breathing dust, fume, gas, mist, vapours or spray.
	P264	Wash hands, face and all exposed skin thoroughly after handling.
	P270	Do not eat, drink or smoke when using this product.
	P272	Contaminated work clothing should not be allowed out of the workplace.
	P273	Avoid release to the environment.
	P280	Wear protective clothing, gloves, eye/face protection and suitable respirator.
<b>RESPONSE PRECAUTIONARY STATEMENTS</b>	P101	If medical advice is needed, have product container or label at hand.
	P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
	P302+P352	IF ON SKIN: Wash with plenty of soap and water.
	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 comfortable for breathing.
	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.
<b>STORAGE PRECAUTIONARY STATEMENT</b>	P405	Store locked up.
<b>DISPOSAL PRECAUTIONARY STATEMENT</b>	P501	Dispose of contents/container in accordance with local, regional, national and international regulations.
<b>POISON SCHEDULE</b>	S5. Caution	
<b>DANGEROUS GOOD CLASSIFICATION</b>	Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".	
<b>DANGEROUS GOODS CLASS</b>	8	

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## 3. COMPOSITION INFORMATION

CHEMICAL ENTITY	CAS NO	PROPORTION
1,2-Ethanediamine, N,N'-bis(2-aminoethyl)-	112-24-3	>60 %
Ingredients determined to be Non-Hazardous		Balance
		100%

## 4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

<b>INHALATION</b>	Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.
<b>SKIN CONTACT</b>	Effects may be delayed. This material, or a component of the material, can be absorbed through the skin with resultant toxic effects. If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If swelling, redness, blistering or irritation occurs seek medical assistance. For gross contamination, immediately drench with water and remove clothing. Continue to flush skin and hair with plenty of water (and soap if material is insoluble). For skin burns, cover with a clean, dry dressing until medical help is available. If blistering occurs, do NOT break blisters. If swelling, redness, blistering, or irritation occurs seek medical assistance.
<b>EYE CONTACT</b>	Immediately irrigate with copious quantities of water for 15 minutes. Eyelids to be held open. Remove clothing if contaminated and wash skin. Urgently seek medical assistance. Transport to hospital or medical centre.
<b>INGESTION</b>	Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Immediately call Poisons Centre or Doctor.
<b>PPE FOR FIRST AIDERS</b>	Wear safety shoes, gloves, safety glasses. Available information suggests that gloves made from nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.
<b>NOTES TO PHYSICIAN</b>	Treat symptomatically. Effects may be delayed. Can cause corneal burns.

## 5. FIRE FIGHTING MEASURES

<b>HAZCHEM CODE</b>	2X
<b>SUITABLE EXTINGUISHING MEDIA</b>	If material is involved in a fire use water fog (or if unavailable fine water spray), alcohol resistant foam, standard foam, dry agent (carbon dioxide, dry chemical powder).
<b>SPECIFIC HAZARDS</b>	Non-combustible material.

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<b>FIRE FIGHTING FURTHER ADVICE</b>	Not applicable.
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### 6. ACCIDENTAL RELEASE MEASURES

<b>SMALL SPILLS</b>	Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours or dust. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.
<b>LARGE SPILLS</b>	Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
<b>DANGEROUS GOODS - INITIAL EMERGENCY RESPONSE GUIDE NO:</b>	36

### 7. HANDLING AND STORAGE

<b>HANDLING</b>	Avoid eye contact and skin contact. Avoid inhalation of vapour, mist or aerosols.
<b>STORAGE</b>	<p>Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Store away from sources of heat and/or ignition. Store locked up. Keep container standing upright. Keep containers closed when not in use - check regularly for leaks.</p> <p>This material is classified as a Class 8 Corrosive as per the criteria of the "Australian Code for the Transport of Dangerous Goods by Road &amp; Rail" and/or the "New Zealand NZS5433: Transport of Dangerous Goods on Land" and must be stored in accordance with the relevant regulations.</p> <p>This material is a Scheduled Poison Schedule 5 (Caution) and must be stored, maintained and used in accordance with the relevant regulations.</p>

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>NATIONAL OCCUPATIONAL EXPOSURE LIMITS</b>	No value assigned for this specific material by Safe Work Australia.
<b>BIOLOGICAL LIMIT VALUES</b>	As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.
<b>ENGINEERING MEASURES</b>	Natural ventilation should be adequate under normal use conditions.

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<b>PERSONAL PROTECTION EQUIPMENT</b>	<p>SAFETY SHOES, GLOVES, SAFETY GLASSES.</p> <p>Personal protective equipment (PPE) must be suitable for the nature of the work and any hazard associated with the work as identified by the risk assessment conducted.</p> <p>Wear safety shoes, gloves, safety glasses. Available information suggests that gloves made from nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.</p>
<b>HYGIENE MEASURES</b>	<p>Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid eye contact and skin contact. Avoid inhalation of vapour, mist or aerosols. Ensure that eyewash stations and safety showers are close to the workstation location.</p>

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid
Colour:	Blue
Odour:	Amine
Solubility:	Soluble in Water
Specific Gravity (20 °C):	0.98-1.02 @ 25 Deg C
Relative Vapour Density (air=1):	5
Vapour Pressure (20 °C):	<0.01 kPa
Flash Point (°C):	149 Deg C
Boiling Point/Range (°C):	277 Deg C
Decomposition Point (°C):	>200 Deg C
Total VOC (g/Litre):	Nil
% Volatile by Volume:	Nil

(Typical values only - consult specification sheet) N Av = Not available, N App = Not applicable.

### 10. STABILITY AND REACTIVITY

<b>CHEMICAL STABILITY</b>	This material is thermally stable when stored and used as directed.
<b>CONDITIONS TO AVOID</b>	Elevated temperatures and sources of ignition.
<b>INCOMPATIBLE MATERIALS</b>	Oxidising agents.
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b>	Oxides of carbon and nitrogen, smoke and other toxic fumes.
<b>HAZARDOUS REACTIONS</b>	No known hazardous reactions.

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### 11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

<b>ACUTE EFFECTS</b>	<p><b>Inhalation</b> Material may be an irritant to mucous membranes and respiratory tract.</p> <p><b>Skin contact</b> Harmful in contact with skin. Can be absorbed through the skin with resultant toxic effects. Contact with skin will result in severe irritation. Corrosive to skin - may cause skin burns. A skin sensitiser. Repeated or prolonged skin contact may lead to allergic contact dermatitis.</p> <p><b>Ingestion</b> Harmful if swallowed. Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract.</p> <p><b>Eye contact</b> A severe eye irritant. Corrosive to eyes: contact can cause corneal burns. Contamination of eyes can result in permanent injury.</p>
<b>ACUTE TOXICITY</b>	<p><b>Inhalation</b> This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): <math>LC_{50} &gt; 20.0</math> mg/L for vapours or <math>LC_{50} &gt; 5.0</math> mg/L for dust and mist or <math>LC_{50} &gt; 20,000</math> ppm for gas.</p> <p><b>Skin contact</b> This material has been classified as a Category 4 Hazard. Acute toxicity estimate (based on ingredients): 1,000 - 2,000 mg/Kg bw.</p> <p><b>Ingestion</b> This material has been classified as a Category 4 Hazard. Acute toxicity estimate (based on ingredients): 300 - 2,000 mg/Kg bw.</p> <p><b>Corrosion/Irritancy</b> Eye: this material has been classified as a Category 1 Hazard (irreversible effects to eyes). Skin: this material has been classified as a Category 1B Hazard (irreversible effects to skin).</p> <p><b>Sensitisation</b> Inhalation: this material has been classified as not a respiratory sensitiser. Skin: this material has been classified as a Category 1 Hazard (skin sensitiser).</p> <p><b>Aspiration hazard</b> This material has been classified as non-hazardous.</p> <p><b>Specific target organ toxicity (single exposure)</b> This material has been classified as non-hazardous.</p>
<b>CHRONIC TOXICITY</b>	<p><b>Mutagenicity</b> This material has been classified as non-hazardous.</p> <p><b>Carcinogenicity</b> This material has been classified as non-hazardous.</p> <p><b>Reproductive toxicity (including via lactation)</b> This material has been classified as non-hazardous.</p> <p><b>Specific target organ toxicity (repeat exposure)</b> This material has been classified as non-hazardous.</p>

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## 12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

<b>ACUTE AQUATIC HAZARD</b>	This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >100 mg/L.
<b>LONG-TERM AQUATIC HAZARD</b>	This material has been classified as a Category Chronic 3 Hazard. Non-rapidly or rapidly degradable substance for which there are adequate chronic toxicity data available OR in the absence of chronic toxicity data, Acute toxicity estimate (based on ingredients): 10 - 100 mg/L, where the substance is not rapidly degradable and/or $BCF \geq 500$ and/or $\log K_{ow} \geq 4$ .
<b>ECOTOXICITY</b>	No information available.
<b>PERSISTENCE AND DEGRADABILITY</b>	No information available.
<b>BIOACCUMULATIVE POTENTIAL</b>	No information available.
<b>MOBILITY</b>	No information available.

## 13. DISPOSAL CONSIDERATIONS

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

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### 14. TRANSPORT INFORMATION

#### ROAD AND RAIL TRANSPORT

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".



UN No:	2259
Dangerous Goods Class:	8
Subsidiary Risk, Secondary Subsidiary:	
Packing Group:	II
Special Provisions:	
Limited Quantities:	1 L
Hazchem Code:	2X
Emergency Response Guide No:	36
<b>Packagings and IBCs</b>	
Packing Instructions	P001, IBC02
Special Packing Provisions	
<b>Portable Tanks and Bulk Containers</b>	
Instructions	T7
Special Provisions	TP2
Proper Shipping Name:	TRIETHYLENETETRAMINE
Segregation Dangerous Goods:	Not to be loaded with explosives (Class 1), dangerous when wet substances (Class 4.3), oxidising agents (Class 5.1), organic peroxides (Class 5.2), radioactive substances (Class 7) or food and food packaging in any quantity. Note 1: Concentrated strong alkalis are incompatible with concentrated strong acids. Note 2: Concentrated strong acids are incompatible with concentrated strong alkalis. Note 3: Acids are incompatible with Dangerous Goods of Class 6 which are cyanides. Exemptions may apply.



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### MARINE TRANSPORT

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.



UN No:	2259
Dangerous Goods Class:	8
Subsidiary Risk, Secondary Subsidiary:	
Packing Group:	II
Special Provisions:	
Limited Quantities:	1 L
Hazchem Code:	2X
Emergency Response Guide No:	36
EMS fire:	F-A
EMS spill:	S-B
<b>Packagings and IBCs</b>	
Packing Instructions:	P001, IBC02
Special Packing Provisions:	
<b>Portable Tanks and Bulk Containers</b>	
Instructions:	T7
Special Provisions:	TP2
Proper Shipping Name:	TRIETHYLENETETRAMINE

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### AIR TRANSPORT

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.



UN No:	2259
Dangerous Goods Class:	8
Subsidiary Risk, Secondary Subsidiary:	
Packing Group:	II
Special Provisions:	
ERG Code:	8L
<b>Passengers and Cargo Aircraft Limited Quantities</b>	
Packing Instructions:	Y840
Maximum Net Quantity per Package:	0.5 L
<b>Passengers and Cargo Aircraft</b>	
Packing Instructions:	851
Maximum Net Quantity per Package:	1 L
<b>Cargo Aircraft Only</b>	
Packing Instructions:	855
Maximum Net Quantity per Package:	30 L
Proper Shipping Name:	TRIETHYLENETETRAMINE

### 15. REGULATORY INFORMATION

#### This material is not subject to the following international agreements:

Montreal Protocol (Ozone depleting substances)  
 The Stockholm Convention (Persistent Organic Pollutants)  
 The Rotterdam Convention (Prior Informed Consent)  
 International Convention for the Prevention of Pollution from Ships (MARPOL)

#### This material is subject to the following international agreements:

Basel Convention (Hazardous Waste)

- Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives

#### This material/constituent(s) is covered by the following requirements:

- The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) established under the Therapeutic Goods Act (Commonwealth).
- All components of this product are listed on or exempt from the Australian Inventory of Chemical Substances (AICS).

## Safety Data Sheet

### 16. OTHER INFORMATION

Reason for issue: Revised

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If you are an employer it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.

Safety Data Sheets are updated frequently. Please ensure you have a current copy.