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**Product Name:** Epoxy Filler Base Epomast Oceanmaster**MATERIAL SAFETY DATA SHEET****Product Name:** Epoxy Filler Base Epomast Oceanmaster  
**Other Names:** Not applicable.**Chemical Family:** Epoxy Resin.  
**Chemical Name:** Bisphenol A based epoxy resin.**UN No. :** Non allocated                      **D.G. Class :** Non allocated  
**Hazchem :** Non allocated                      **SUSPD :** Non allocated  
**Use**                      In conjunction with epoxy hardeners as coatings, laminators and adhesives.**Physical Description / Properties****Appearance :** Blue paste with mild odour.  
**Boiling Point :** > 200 °C @ 1013 kPa  
**Melting Point/Freeze Point :** Not determined  
**Vapour Pressure :** Not determined  
**Specific Gravity**                      0.7  
**Flashpoint :** > 100 °C (PMCC)  
**Flammability Limits :** Not determined.  
**Solubility in Water :** Negligible  
**Vapour Density :** Heavier than air.**Ingredients:**

Ingredient Name	CAS Number	Concentration (%)
Bisphenol-A based epoxy resin	25085-99-8	< 50
Bisphenol-F based epoxy resin	28064-14-4	< 30
Aliphatic glycidyl ether	-	< 30
Ingredients determined not to be hazardous	-	< 50

**Risk Phrases**

R20/22	Harmful by inhalation and if swallowed.
R36/38	Irritating to eyes and skin.
R43	May cause sensitisation by skin contact.

**Safety Phrases**

S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advise.
S28	After contact with skin, wash immediately with plenty of soap-suds.
S37/39	Wear suitable gloves and eye / face protection.

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**HEALTH HAZARD INFORMATION:**

<u>Emergency Overview</u>		
<b>HMIS Hazard Rating:</b>	<b>Health - 2</b>	<b>Flammability - 1</b> <b>Reactivity - 0</b>
May cause allergic skin response in certain individuals. May cause moderate irritation to the skin. Light yellow liquid with mild odour.		

The Hazardous Material Indexing System (HMIS), cited in the Emergency Overview of Section 2, uses the following index to assess hazard rating: 0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; and 4 = Severe.

**Primary Route(s) of Entry :**                      Skin Contact

**Potential Health Effects**

- Ingestion / Swallowed :**                      Low acute oral toxicity. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; swallowing larger amounts than that may cause injury.
- Eye Contact :**                                      May cause irritation.
- Acute Skin Contact :**                              May cause allergic skin response in certain individuals. May cause moderate irritation to the skin. A single prolonged exposure is not likely to result in the material being absorbed through the skin in harmful amounts.
- Chronic Skin Contact :**                              May cause sensitisation in susceptible individuals. May cause moderate irritation to the skin.
- Acute Inhalation :**                                  Not considered a problem unless heated to high temperatures. If inhalation does occur, vapours may cause mild respiratory irritation.
- Chronic Inhalation :**                                  Not considered a problem unless heated to high temperatures. If inhalation does occur, vapours may cause mild respiratory irritation.
- Symptoms of Overexposure :**                      Moderate skin irritation seen as redness; possible rash.

**First Aid Measures**

- First Aid for Ingestion :**                              Induce vomiting if large amounts are ingested. Never give fluids or induce vomiting if patient is unconscious or is having convulsions. If poisoning occurs, consult a doctor or contact a Poisons Information Centre.
- First Aid for Eyes :**                                      Flush immediately with water for at least fifteen (15) minutes. Consult a doctor.
- First Aid for Skin :**                                      Remove contaminated clothing. Wipe excess from skin. Remove with waterless skin cleaner and then wash with soap and water. Consult a doctor if effects occur. DO NOT use solvents to remove product or reacted material from skin.
- First Aid for Inhalation :**                              Remove to fresh air if effects occur. Consult a doctor.

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**Advice to Doctor:** No specific antidote. Supportive care.  
Treatment based on judgment of the doctor in response to reactions of the patient.

**Toxicity Data**

**Oral :** LD50 > 5000 mg / kg (rats)  
**Inhalation :** No data.  
**Dermal :** LD50 20,000 mg / kg (skin absorption in rabbits)

**PRECAUTIONS FOR USE:**

**Exposure Standards**

Not established for products as whole. Refer to *Product Identification*.

**Engineering Controls**

Good room ventilation is usually adequate for most operations. Local exhaust ventilation may be necessary for some operations.

**Personal Protection**

Practice good caution and personal cleanliness to avoid skin and eye contact. Avoid skin contact when removing gloves and other protective equipment. Wash thoroughly after handling. Avoid breathing vapours of heated material. Use only approved protective clothing and equipment when handling this material (refer Australian Standards below).

**Respiratory Protection :** Wear a NIOSH/MSHA approved respirator with an organic vapour cartridge whenever exposure to vapour in concentrations above applicable limits is likely (approval #TC-23C).

**Skin Protection :** Rubber gloves and body-covering clothing. Remove contaminated clothing no later than the end of the work period and launder before reuse.

**Eye / Face Protection :** Safety glasses with side shields or chemical splash goggles.

Selection and use of personal protective equipment should be in accordance with the recommendations in one or more of the relevant Australian Standards, including;

- AS 1336 : Recommended practices for eye protection in the industrial environment.
- AS / NZS 1337 : Eye protectors for industrial applications.
- AS / NZS 1715 : Selection, use and maintenance of respiratory protective devices.
- AS 2161 : Industrial safety gloves and mittens (excluding electrical and medical gloves).
- AS / NZS 2210 : Occupational protective footwear.
- AS 2919 : Industrial clothing.

**Exposure Standards:** Will support combustion.

**Environment**

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Prevent entry into sewers and natural waters. May cause localised fish kill.

**Movement & Partitioning :** Bioconcentration potential is low (BCF less than 100 or Kog Kow less than 3).

**Degradation and Transformation :** Biodegradation under aerobic static laboratory conditions is below detectable limits (i.e. BOD less than 2.5 % of theoretical) in 20 days.

**Ecotoxicology :** Material is highly toxic to aquatic organisms on an acute basis. LC50 between 0.1 and 1.0 mg / L in most sensitive species.

**SAFE HANDLING INFORMATION:**

This product is not classified as a dangerous good in the Australian Dangerous Goods Code by reference to a specific substance name or a generic substance name or group.

**Storage Temperature:** 4 °C / 49 °C (min/max)

**Shelf Life :** Three years or more in original container.

**Storage :** Store in cool, dry place. Store in tightly sealed containers to prevent moisture absorption and loss of volatiles. Excessive heat over long periods of time will degrade the resin.

**Handling Precautions :** Avoid prolonged or repeated skin contact. Wash thoroughly after handling. Launder contaminated clothing before reuse. Avoid inhalation of vapours from heated product. Precautionary steps should be taken when curing product in large quantities. Masses of curing product can generate dangerous exothermic heat and vapour that vary in composition and toxicity.

**Spills and Disposal**

**Spill or Leak Procedures :** Soak up in absorbent material or scrape-up. Residual can be removed with non-flammable solvent, but solvent should be used sparingly and with appropriate precautions.

**Waste Disposal Method :** Any disposal practice must be in compliance with all State, Territory, and/or Local Government regulations.

Waste characterisation and disposal compliance are the responsibility solely of the party generating the waste or deciding to discard or dispose of the material.

Do not allow into any sewers, on the ground or into any body of water. The preferred waste management option for unused, uncontaminated, unformulated, or not otherwise altered material is to be sent to an approved recycler, reclaimer, or incinerator. The same waste management options are recommended for used or contaminated material, although additional evaluation is required.

**Fire / Explosion Hazard**

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**Hazardous Combustion Products :** Carbon monoxide and carbon dioxide fumes may be produced when heated to decomposition.

**Fire Fighting Equipment :** Wear a self-contained breathing apparatus and complete full-body personal protective equipment. Closed containers may rupture (due to buildup of pressure) when exposed to extreme heat.

**Extinguishing Media :** Foam, carbon dioxide (CO<sub>2</sub>), dry chemical.

**Reactivity Data**

**Chemical Stability :** Stable under normal storage conditions.

**Conditions to Avoid :** Excessive heating over long periods of time degrades to product.

**Incompatibilities :** Strong acids, bases, amines and mercaptans can cause polymerisation.

**Hazardous Polymerisation :** Will not occur by itself, but a mass of more than half a kilogram (one pound) of product plus an aliphatic amine will cause irreversible polymerisation with significant heat buildup.

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Product Name: Epoxy Filler Hardener Epomast Oceanmaster

## MATERIAL SAFETY DATA SHEET

Product Name: Epoxy Filler Hardener Epomast Oceanmaster  
Other Names: Not applicable.

Chemical Family: Polyamide  
Chemical Name: Modified Polyamide

UN No. : UN Free  
Hazchem : N/A  
Pack. GRP : N/A  
EPG : N/A

IMO/IMDG Class : N/A  
SUSPD : 5  
Shipping Name : Polyamide Resin

### Physical Description / Properties

Appearance : White paste with a mild amine odour.  
Boiling Point : > 90 °C  
Melting Point/Freeze Point : No data.  
Vapour Pressure : < 1 mmHg @ 20 °C  
Specific Gravity : 0.80  
Flashpoint : > 108 °C (PMCC)  
Flammability Limits : Not determined.  
Solubility in Water : Appreciable  
Vapour Density : Heavier than air.  
Use : Epoxy resin curing agent.

### Hazardous Ingredients

Ingredient Name	CAS Number	Concentration (%)
Polyamide resin	None	> 50
Catalyst	90-72-2	< 10
Benzyl alcohol	100-51-6	< 10

### Risk Phrases

R20/22	Harmful by inhalation and if swallowed.
R21/22	Harmful in contact with skin and if swallowed.
R22	Harmful if swallowed.
R34	Causes burns.
R36/38	Irritating to eyes and skin.
R43	May cause sensitisation by skin contact.

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**Safety Phrases**

S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advise.
S28	After contact with skin, wash immediately with plenty of soap-suds.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
S45	In case of accident or if you feel unwell, seek medical advise immediately.

**HEALTH HAZARD INFORMATION:**

**Emergency Overview**

**HMIS Hazard Rating:** Health - 3                      Flammability - 1                      Reactivity - 0

Strong skin sensitiser. Corrosive. May cause severe chemical burns to eyes and skin. Harmful if swallowed. Can cause respiratory tract irritation. Pale coloured liquid with an amine odour.

**Note:** The Hazardous Material Indexing System (HMIS), cited in the Emergency Overview of Section 2, uses the following index to assess hazard rating: 0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; and 4 = Severe.

**Primary Route(s) of Entry :** Skin and eye contact, inhalation.

**Potential Health Effects**

- Ingestion / Swallowed :** Moderately toxic. May cause gastrointestinal irritation or ulceration. May cause burns of the mouth and throat.
- Eye Contact :** May cause blurred vision. May cause irritation with corneal injury resulting in permanent vision impairment or even blindness.
- Acute Skin Contact :** Corrosive. May cause severe skin damage with burns and blistering. May cause allergic reaction in certain individuals. A single prolonged exposure may result in the material being absorbed in harmful amounts.
- Chronic Skin Contact :** Possible skin sensitiser. May cause persistent irritation/dermatitis. Prolonged skin contact may result in material being absorbed in harmful amounts.
- Acute Inhalation :** Excessive exposure to vapour or mist are irritating to the upper respiratory tract, causing nasal discharge, and discomfort in eyes, nose, throat, chest. Severe cases may cause difficult breathing/lung damage.
- Chronic Inhalation :** May cause lung damage. May cause respiratory sensitisation in susceptible individuals.
- Symptoms of Overexposure :** Skin irritation, burns and blistering. Irritation of the nose and throat, headache, nausea and vomiting. Eye irritation and blurred vision.
- Carcinogenicity :**
  - NTP                      No.
  - IARC                     No.
  - OSHA                    No.

**Medical Conditions Aggravated by Exposure :**

Existing respiratory conditions, such as asthma and bronchitis. Existing skin conditions.

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### First Aid Measures

- First Aid for Ingestion :** Give conscious person at least two (2) glasses of water. Do not induce vomiting. If vomiting should occur spontaneously, keep airway clear. Never give fluids or induce vomiting if patient is unconscious or is having convulsions. If poisoning occurs, consult a doctor or contact a Poisons Information Centre. Seek immediate medical attention.
- First Aid for Eyes :** Immediately and continuous irrigation with flowing water for at least thirty (30) minutes is imperative. Get prompt medical attention.
- First Aid for Skin :** Remove contaminated clothing. Wipe excess from skin. Immediately wash with soap and water for at least 15 minutes. Consult a doctor if effects occur. DO NOT apply grease or ointments. Destroy contaminated shoes.
- First Aid for Inhalation :** Move to fresh air if effects occur. Consult a doctor.
- First Aid Facilities :** An eye wash fountain, safety shower and a general washing facility should be available in immediate work area.

**Advice to Doctor:** Corrosive. May cause tissue destruction leading to stricture. If lavage is performed, suggest endotracheal and / or esophagoscopic control. If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Supportive care. Treatment based on judgment of the doctor in response to reactions of the patient. Excessive exposure may aggravate pre-existing asthma.

### Toxicity Data

- Oral :** The oral LD50 for rats is 2140 to 3990 mg / kg.
- Inhalation :** No remarkable effects.
- Dermal :** Slightly toxic; corrosive.

### 3. PRECAUTIONS FOR USE:

- Exposure Standards:** Not established for products as whole. Refer to *Product Identification*.
- Engineering Controls:** Breathing of vapours must be avoided. Good room ventilation is usually adequate for most operations. Local exhaust ventilation may be necessary for some operations.

### Personal Protection

Practice good caution and personal cleanliness to avoid skin and eye contact. Avoid skin contact when removing gloves and other protective equipment. Wash thoroughly after handling. Avoid breathing vapours of heated material. Use only approved protective clothing and equipment when handling this material (refer Australian Standards below).

- Respiratory Protection :** Wear a NIOSH/MSHA approved respirator with an organic vapour cartridge whenever exposure to vapour in concentrations above applicable limits is likely (approval #TC-23C).
- Skin Protection :** Use protective clothing impervious to this material. Selection of specific items such as face shield, gloves (rubber or latex), boots apron or full-body suit will depend on operation. Although a full body suit is



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recommended. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse. Contaminated leather items, such as shoes, belts and watchbands, should be removed and destroyed.

**Eye / Face Protection :** Chemical splash goggles, full-face shield or full-face respirator. Eye wash fountain should be located in immediate work area.

Selection and use of personal protective equipment should be in accordance with the recommendations in one or more of the relevant Australian Standards, including;

- AS 1336 : Recommended practices for eye protection in the industrial environment.
- AS / NZS 1337 : Eye protectors for industrial applications.
- AS / NZS 1715 : Selection, use and maintenance of respiratory protective devices.
- AS 2161 : Industrial safety gloves/mittens (excluding electrical/medical gloves). Occupational protective footwear.
- AS / NZS 2210 : Industrial clothing.
- AS 2919 :

**Environment:** Do not contaminate waterways.

**Movement & Partitioning :** No data.

**Degradation and Transformation :** No data.

**Ecotoxicology :** No data.

**SAFE HANDLING INFORMATION:**

Store in accordance with regulations for storage of dangerous goods; some State Authorities may also regulate combustible liquid status of this product.

- Class 1 Explosives
- Class 4.3 Dangerous When Wet Substances
- Class 5.1 Organic Peroxides
- Class 6 Poisonous (toxic) Substances (where the poisonous substances are cyanides and the corrosives are acids)
- Class 7 Radioactive Substances

Foodstuff and foodstuff empties.

**Storage Temperature (min/max) :** 4 °C / 32 °C

**Shelf Life :** Two years or more in original sealed container.

**Storage :** Store in cool, dry place with adequate ventilation. Keep containers tightly closed when not in use. Protect from atmospheric moisture.

**Handling Precautions :** Avoid prolonged or repeated skin contact. Wash thoroughly after handling. Launder contaminated clothing before reuse. Avoid inhalation of vapours from heated product. Precautionary steps should be taken when curing product in large quantities. Masses of curing product can generate dangerous exothermic heat and vapour that vary in composition and toxicity.

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### Spills and Disposal

**Spill or Leak Procedures :**

Stop leak without additional risk. Wear proper personal protective equipment. Dike and contain spill. Ventilate area. Large spill - dike and pump into appropriate container for recovery. Small spill - dilute with water and recover or use inert, non-combustible absorbent material (e.g., sand) and shovel into suitable container. Do not use sawdust, wood chips or other cellulosic materials to absorb the spill, as the possibility for spontaneous combustion exists. Wash spill residue with warm, soapy water if necessary.

**Waste Disposal Method :**

Evaluation of this product using RCPA criteria shows that it is not a hazardous waste, either by listing or characteristics, in its purchased form. It is the responsibility of the user to determine proper disposal methods.

Incinerate or landfill may be preferred methods when conducted in accordance with federal, state and local regulations.

### Fire / Explosion Hazard

Keep unnecessary people away, isolate hazard area and deny unnecessary entry. Highly toxic fumes are released in fire situations. Fire water run-off may be toxic. When using water spray, boil over may occur when the product temperature reaches the boiling point of water (tank-type scenarios, not spills).

**Hazardous Combustion Products :** Nitrogen oxides formed when combusted.

**Fire Fighting Equipment :**

Wear a self-contained positive pressure breathing apparatus and complete full-body personal protective equipment (including fire fighting helmet, coat, trousers, boots and gloves). Closed containers may rupture (due to buildup of pressure) when exposed to extreme heat.

**Extinguishing Media :**

Water fog, dry chemical, alcohol foam, carbon dioxide (CO<sub>2</sub>).

### Reactivity Data

**Chemical Stability :**

Stable under normal storage conditions.

**Conditions to Avoid :**

Can autoignite in air at approximately 300 °C. Excessive heating over long periods of time degrades to product.

**Incompatibilities :**

May react violently when in contact with oxidising materials, acids or halogenated compounds such as methylene chloride. Reactions may be slow initially, then may rapidly generate heat and vapour pressure.

**Hazardous Polymerisation :**

Will not occur by itself but a mass of 500 grams plus epoxy resin will cause irreversible polymerisation with significant heat build up.

### Other Safe Handling Information

This product should not come into contact with copper or copper bearing alloys. Ground all electrical equipment. Do not eat, drink or smoke in working area. No smoking, open flames, or sources of ignition in handling or storage area.