

# SAFETY DATA SHEETS (SDS)

## Enviro Epoxy RC Part B



Version: 3

Issued by: Envirosystems Technologies

Date of Issue: October 2019

Hazard Identifiers



### SECTION 1 – IDENTIFICATION OF MATERIAL & SUPPLIER

- 1.1 **Product Name:** Enviro Epoxy RC Part B
  - 1.2 **Manufacturer's Product Code:** N/A
  - 1.3 **Recommended Use:** Part B of a two component, epoxy coating
  - 1.3 **Company:** Envirosystems Technologies Pty Ltd
  - 1.3 **Address:** 295 Princes Highway St Peters, NSW 2044.
  - 1.3 **Website:** www.envirosystems.com.au
  - 1.3 **Telephone:** +61 2 85958699 (business hours)
  - 1.3 **Fax:** +61 2 85958660
  - 1.4 **Emergency Telephone:** Info Safe – 1800 638 556, Poisons Centre – 131126
- Other Information:** All information in this SDS is to the best of our knowledge at time of publication. Users of this product should fully review this SDS prior to use to ensure best safety practices. Further information and or clarification can be obtained by contacting our technical department on the above telephone number.

### SECTION 2 – HAZARDS IDENTIFICATION

- 2.1 **Hazard Classification:** Classified as **Hazardous** according to WHS Regulations, Australian GHS criteria and a **Dangerous Goods** according to the Australian Dangerous Goods Code.

| Class                                       | Category |
|---|----------|
| Flammable                                   | 3        |
| Acute toxicity - Dermal                     | 4        |
| Acute toxicity - Vapors                     | 4        |
| Acute toxicity - Dusts and Mists            | 4        |
| Skin Corrosion/Irritation                   | 2        |
| Serious eye damage/ irritation              | 1        |
| Skin Sensitization                          | 2        |
| Carcinogenicity                             | 2        |
| Specific target organ exposure - single     | 3        |
| Specific target organ exposure - repeated   | 2        |
| Hazardous to the aquatic environment- acute | 2        |

- 2.2 **Label Elements**



Signal word

Danger

| H-code | Hazard Statements           |
|--------|-----------------------------|
| H226   | Flammable liquid and vapour |

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|                        |  |
|------------------------|--|
| H315                   | Causes skin irritation   |
| H317                   | May cause allergic skin reaction   |
| H318                   | Causes serious eye damage  |
| H351                   | Suspected of causing cancer  |
| H335                   | May cause respiratory irritation   |
| H336                   | May cause drowsiness or dizziness  |
| H373                   | May cause damage to organs through prolonged or repeated exposure  |
| H401                   | Toxic to aquatic life  |
| <b>P-Code</b>          | <b>Precautionary Statement - Prevention</b>  |
| P210                   | Keep away from heat/sparks/open flames/hot surfaces. No smoking  |
| P242                   | Use only non-sparking tools  |
| P243                   | Take precautionary measures against static discharge   |
| P261                   | Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray  |
| P264                   | Wash skin thoroughly after handling.   |
| P270                   | Do not eat drink or smoke when using this product  |
| P271                   | Use only outdoors or in a well-ventilated area.  |
| P272                   | Contaminated work clothing should not be allowed out of the workplace.   |
| P273                   | Avoid release to the environment   |
| P280                   | Wear protective gloves / protective clothing / eye protection / face protection  |
| <b>P-Code</b>          | <b>Precautionary Statement - Response</b>  |
| P308, P313             | IF exposed or concerned: Get medical advice/attention  |
| P363                   | Wash contaminated clothing before reuse.   |
| P305, P351, P338, P310 | If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician. |
| P303, P361, P353       | IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.   |
| P333, P313             | If skin irritation or rash occurs: Get medical advice/ attention.  |
| P304, P340             | If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.   |
| P301, P330, P331       | If swallowed: Rinse mouth. Do not induce vomiting.   |
| P370, P378             | In case of fire: Use CO2, dry chemical, or foam for extinction   |
| <b>P-Code</b>          | <b>Precautionary Statement - Storage</b>   |
| P405                   | Store locked up  |
| P235, P403             | Store in a cool well-ventilated area   |
| <b>P-Code</b>          | <b>Precautionary Statement - Disposal</b>  |
| P501                   | Dispose of contents/ container to an approved waste disposal plant. In accordance with local regulation  |

2.3 Other Hazards

None known

## SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

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### 3.1 Substances

See section below for Mixtures

### 3.2 Mixtures

| CAS No.   | Material                     | Content % |
|-----------|------------------------------|-----------|
| 2855-13-2 | Isophorone diamine           | 10-30     |
| 1477-55-0 | M-phenylenebis (methylamine) | <2        |
| 78-83-1   | 2-Methylpropan-1-ol          | <2        |
| 50-00-0   | Formaldehyde                 | <0.1      |
| 1330-20-7 | Xylenes (o-, m-, p- isomers) | 1-10      |
| 100-41-4  | Ethyl benzene                | 1-5       |

## SECTION 4 – FIRST AID MEASURES

### 4.1 Description of first aid measures

#### General Advice:

Immediately remove contaminated clothing. If in danger of loss of consciousness, place patient in recovery position and transport accordingly. Apply artificial respiration if necessary. First aid personnel should pay attention to the own safety.

#### Ingestion:

IF SWALLOWED Transport to hospital, or doctor. For advice, contact a Poisons Information Centre or a doctor. In the mean time, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition. If the services of a medical officer or medical doctor are readily available, the patient should be placed in his/her care and a copy of the SDS should be provided. Further action will be the responsibility of the medical specialist. If medical attention is not available on the worksite or surroundings send the patient to a hospital together with a copy of the SDS.

#### Inhalation:

Keep patient calm and remove to fresh air. Transport to hospital, or doctor.

#### Eye Contact:

While holding eyes open, gently flood with plenty of fresh water for 15 minutes. Washing within one minute is essential to achieve maximum effectiveness. Immediate medical attention required. If pain persists or recurs also seek medical attention. Skilled personnel should only undertake removal of contact lenses after an eye injury.

#### Skin Contact:

Flush contacted area thoroughly with soap and plenty of water. Seek medical attention in event of irritation. Remove contaminated clothing including footwear.

### 4.2 Most important symptoms and effects, both acute and delayed

Any relevant information can be found in other parts of this section and in sections 2 and 11.

### 4.3 Advice for doctor

May cause sensitisation in susceptible persons. Treat symptomatically. Because of the danger of aspiration, emesis or gastric lavage should not be used unless the risk is justified by the presence of additional toxic substances..

## SECTION 5 – FIRE FIGHTING MEASURES

### 5.1 Extinguishing media

Suitable extinguishing media:

Water fog or fine spray, dry chemical powder, foam, BCF (where regulations permit). Alcohols resistant foams are preferred. Protein foams may function but will be less effective.

Unsuitable extinguishing media that may not be used for safety reasons:

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Do not use direct water stream as it might spread the fire.

**5.2 Special hazards arising from the substance or mixture**

Oxides of carbon and other possibly toxic fumes from fire.

**5.3 Advice for firefighters**

Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO). Combustion products include carbon dioxide (CO<sub>2</sub>), phenolics products typical of burning organic material. Closed containers may rupture due to pressure buildup under fire conditions.

**Hazchem code:** 3Y

### SECTION 6 – ACCIDENTAL RELEASE MEASURES

**6.1 Personal precautions, protective equipment and emergency procedures**

Secure the area. Wear personal protection equipment (see section 8). Keep unprotected persons away. Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols. If material is released indicate risk of slipping. Do not walk through spilled material. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback.

**6.2 Environmental precautions**

Do not discharge into sewers or waterways and soil.

**6.3 Methods and material for containment and cleaning up**

Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers.

**6.4 Reference to other sections**

Relevant information in other sections has to be considered. This applies in particular for information given on personal protective equipment (section 8) and on disposal (section 13).

### SECTION 7 – HANDLING & STORAGE

**7.1 Precautions for safe handling**

Ensure thorough ventilation of stores and work areas. Handle in accordance with good industrial hygiene and safety practice. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. Protection against fire and explosion: The product is flammable. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

**7.2 Conditions for safe storage**

**Storage Requirements:**  
Store in a cool, dry and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e. pilot lights, electric motors and static electricity). Keep in properly labelled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store away from strong acids, strong bases and strong oxidising agents.  
**Temperature Conditions:**  
Up to 40° C  
**Protection from weather:**  
Store undercover and away from frost and moisture

**7.3 Specific end use(s)**

Once mixed with part A and applied, produces a hard wearing, durable surface

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suitable for commercial and industrial applications.

### 7.4 Regulations and standards (Australia):

Classified as Hazardous Liquid which should be stored and handled in accordance with regulations

## SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

Exposure limits Australia

| Ingredient          | STEL   | TWA    |
|---------------------|--------|--------|
| 2-Methylpropan-1-ol |        | 50ppm  |
| Xylene              | 150ppm | 80ppm  |
| Formaldehyde        | 2ppm   | 1ppm   |
| Ethylbenzene        | 125ppm | 100ppm |

### 8.2 Exposure controls

#### General protection and hygiene measures:

General ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations. Do not eat, drink or smoke when handling. Wash hands at the end of work and before eating. Keep working clothes separately. Remove contaminated, soaked clothing immediately. Clean work areas regularly.

#### Personal protection equipment:

##### Respiratory protection

Respiratory protection should be worn Type A1 Filter of sufficient capacity if ventilation is inadequate. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent). When there is a potential to exceed exposure limits or guidelines a positive pressure full face respirator should be worn. If there are no applicable limits, wear respiratory protection when adverse effects like irritation or discomfort have been experienced or when indicated by your risk assessment process.

##### Eye protection

Chemical goggles. Full face respiratory may be required if exposure causes discomfort.

##### Hand protection

When handling liquid-grade epoxy resins wear chemically protective gloves (e.g nitrile or nitrile-butadiene rubber). Do NOT use cotton or leather (which absorb and concentrate the resin), polyvinyl chloride, rubber or polyethylene gloves (which absorb the resin).

##### Skin protection

Overalls clothing, P.V.C. apron.

##### Other Information

Do not use barrier creams to protect skin from contact with the material. Always wash hands before smoking, eating, drinking or using the toilet and after finishing work. Observe the usual precautions when handling chemicals.

### 8.3 Further information for system design and engineering measures

Ventilation is recommended under normal use conditions. State regulations on speed and direction of airflow away from operators must be observed. Keep containers closed when not in use.

## SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES

### 9.1 Odour: Odour Threshold Colour:

Ammoniacal odour  
Not determined  
Clear colourless to slight amber

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|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Physical State:</b>            | Low Viscosity Liquid    |
| <b>Flash Point:</b>               | 50°C                    |
| <b>Boiling Point:</b>             | >100 °C                 |
| <b>Melting Point:</b>             | Not Available           |
| <b>Specific Gravity:</b>          | 1.94                    |
| <b>pH:</b>                        | >12                     |
| <b>Solubility in Water (g/L):</b> | Insoluble (Hydrophobic) |
| <b>Flammability:</b>              | Yes                     |
| <b>Lower Limit:</b>               | Not determined          |
| <b>Higher Limit:</b>              | Not determined          |
| <b>Vapour Pressure:</b>           | Not determined          |
| <b>Vapour Density (Air = 1)</b>   | Not determined          |

9.2 Other information None available

### SECTION 10 – STABILITY AND REACTIVITY

|  |  |
|--|--|
| <b>10.1 Reactivity; Chemical stability;</b>  | If stored and handled in accordance with standard industrial practices not hazardous reactions are known.<br>Unstable in the present of incompatible material. |
| <b>-3 Possibility of hazardous reactions</b> |  |
| <b>10.4 Conditions to avoid</b>              | Heat, flames and sparks.   |
| <b>10.5 Incompatible materials</b>           | Keep away from oxidizing agents, acids and alkalis.  |
| <b>10.6 Hazardous decomposition products</b> | Oxides of carbon and other possibly toxic fumes from fire.   |

### SECTION 11 – TOXICOLOGICAL INFORMATION

#### Acute Toxicity/Effects

#### CAS 2855-13-2 aminomethyl-3, 5, 5-trimethylcyclohexylamine IPD:

*Acute oral toxicity*  
LD50 > 1030 mg/kg (rat)

*Acute Dermal toxicity*  
LD50 > 1840 mg/kg (rabbit)

*Skin corrosion/irritation*  
Irritant to skin and mucus membranes

*Serious eye damage/eye irritation*  
Irritating effect

*Sensitization*  
Sensitisation possible through skin contact.

#### 2-Methylpropan-1-ol

*Acute toxicity*  
Oral: LD50 2460 mg/kg ( Rat )  
Dermal: LD50 3400 mg/kg ( Rabbit )

#### Xylene

*Acute toxicity*  
Oral: LD50 3500 mg/kg ( Rat )  
Inhalation: LC50 29.08 mg/L ( Rat ) 4 h and 5000ppm ( Rat ) 4 h

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### Formaldehyde

#### *Acute toxicity*

Oral: LD50 100 mg/kg ( Rat )

Inhalation: LDC50 0.578 mg/L ( Rat ) 4 h

Dermal: LD50 270 mg/kg ( Rabbit )

### Ethylbenzene

#### *Acute toxicity*

Oral: LD50 3500 mg/kg ( Rat )

Inhalation: LC50 17.2 mg/L ( Rat ) 4 h

Dermal: LD50 15400 mg/kg ( Rabbit )

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#### *Skin corrosion/irritation*

Classification based on individual ingredients of the mixture. Irritating to skin.

#### *Serious eye damage/eye irritation*

Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.

#### *Respiratory or skin sensitisation*

May cause sensitisation by skin contact.

### Chronic Toxicity/Effects

#### **Enviro Epoxy RC part B:**

##### *Specific target organ systematic toxicity (single exposure)*

May cause respiratory irritation. May cause drowsiness or dizziness.

##### *Specific target organ systematic toxicity (repeated exposure)*

Inhaled: Prolonged exposure to high concentrations of vapour may affect the central nervous system.

##### *Genetic toxicity*

Classification based on individual ingredients of the mixture. Contains a known or suspected mutagen. The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as mutagenic.

##### *Carcinogenicity*

Formaldehyde is a probable carcinogen

##### *Reproductive toxicity*

No information available.

##### *Teratogenicity*

No information available.

##### *Aspiration Hazard*

No information available.

### Long Term Effects:

Inhaled: Prolonged exposure to high concentrations of vapour may affect the central nervous system.

On the skin: Product may be a skin sensitiser in some individuals.

On the eye: Corneal injury.

## SECTION 12 – ECOLOGICAL INFORMATION

### Toxicity

CAS 2855-13-2 aminomethyl-3, 5, 5-trimethylcyclohexylamine IPD:

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### *Acute toxicity in fish*

110 mg/l (Leuciscus idus) (LC50(96h))

### *Acute toxicity to aquatic invertebrates*

23 mg/l (Daphnia magna )(EC50(48h))

### *Acute toxicity to algae/aquatic plants*

>50 mg/l (Scenedesmus subspicatus) (ErC50(72h))

### **2-Methylpropan-1-ol:**

#### *Acute toxicity in fish*

1370 - 1670 mg/L LC50 96 h Pimephales promelas flow-through

1480 - 1730 mg/L LC50 96 h Lepomis macrochirus flow-through

375 mg/L LC50 96 h Pimephales promelas static

1120 - 1520 mg/L LC50 96 h Oncorhynchus mykiss flow-through

#### *Acute toxicity to aquatic invertebrates*

1300 mg/L EC50 48 h Daphnia magna

1070 - 1933 mg/L EC50 48 h Daphnia magna Static

#### *Acute toxicity to algae/aquatic plants*

230 mg/L EC50 48 h Desmodesmus subspicatus

### **Xylene:**

#### *Acute toxicity in fish*

13.4 mg/L LC50 96 h Pimephales promelas flow-through

13.5 - 17.3 mg/L LC50 96 h Oncorhynchus mykiss

13.1 - 16.5 mg/L LC50 96 h Lepomis macrochirus flow-through

23.53 - 29.97 mg/L LC50 96 h Pimephales promelas static

19 mg/L LC50 96 h Lepomis macrochirus

2.661 - 4.093 mg/L LC50 96 h Oncorhynchus mykiss static

30.26 - 40.75 mg/L LC50 96 h Poecilia reticulata static

780 mg/L LC50 96 h Cyprinus carpio semi-static

780 mg/L LC50 96 h Cyprinus carpio

7.711 - 9.591 mg/L LC50 96 h Lepomis macrochirus static

#### *Acute toxicity to aquatic invertebrates*

3.82 mg/L EC50 48 h water flea

0.6 mg/L LC50 48 h Gammarus lacustris

### **Formaldehyde:**

#### *Acute toxicity in fish*

22.6 - 25.7 mg/L LC50 96 h Pimephales promelas flow-through

41 mg/L LC50 96 h Brachydanio rerio static

23.2 - 29.7 mg/L LC50 96 h Pimephales promelas static

1510 µg/L LC50 96 h Lepomis macrochirus static

100 - 136 mg/L LC50 96 h Oncorhynchus mykiss static

0.032 - 0.226 mL/L LC50 96 h Oncorhynchus mykiss flow-through

#### *Acute toxicity to aquatic invertebrates*

2 mg/L LC50 48 h Daphnia magna

11.3 - 18 mg/L EC50 48 h Daphnia magna Static

### **Ethylbenzene:**

#### *Acute toxicity in fish*

11.0 - 18.0 mg/L LC50 96 h Oncorhynchus mykiss static

7.55 - 11 mg/L LC50 96 h Pimephales promelas flow-through

9.1 - 15.6 mg/L LC50 96 h Pimephales promelas static



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9.6 mg/L LC50 96 h Poecilia reticulata static  
4.2 mg/L LC50 96 h Oncorhynchus mykiss semi-static  
32 mg/L LC50 96 h Lepomis macrochirus static

*Acute toxicity to aquatic invertebrates*  
1.8 - 2.4 mg/L EC50 48 h Daphnia magna

*Acute toxicity to algae/aquatic plants*  
438 mg/L EC50 96 h Pseudokirchneriella subcapitata  
4.6 mg/L EC50 72 h Pseudokirchneriella subcapitata  
1.7 - 7.6 mg/L EC50 96 h Pseudokirchneriella subcapitata static  
2.6 - 11.3 mg/L EC50 72 h Pseudokirchneriella subcapitata static

|  |  |
|--|--|
| <b>Microorganisms/Effect on sludge</b> | <b>CAS 2855-13-2 aminomethyl-3, 5, 5-trimethylcyclohexylamine IPD</b><br>1120 mg/l (Pseudomonas putida) (EC10(18h))        |
| <b>Persistence and degradability</b>   | No information available.  |
| <b>Bioaccumulative potential</b>       | <b>Partition coefficient</b><br>2-Methylpropan-1-ol = 0.79<br>Xylene = 3.15<br>Formaldehyde = 0.35<br>Ethylbenzene = 3.118 |
| <b>Mobility in soil</b>                | No information available.  |
| <b>Additional Information</b>          | Do NOT discharge into sewer or waterways. Harmful to fish  |

## SECTION 13 – DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Material Recommendation:

Material that cannot be used, reprocessed or recycled should be disposed of in accordance with Federal, State, and local regulations at an approved facility. Depending on the regulations, waste treatment methods may include, e.g., landfill or incineration.

#### Uncleaned packaging Recommendation:

Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local/state/federal regulations. Uncleaned packaging should be treated with the same precautions as the material.

## SECTION 14 – TRANSPORT INFORMATION

### Transport Information

Classified as a Dangerous Good according to the Australian Code for the Transportation of Dangerous Goods by Road and Rail.

U.N. Number: 1263  
DG Class: 3  
EPG card: N/A  
Hazchem Code: 3Y  
Proper Shipping Name: Paint related products  
Packing Group: III

### Classification for SEA transport (IMO-IMDG)

U.N. Number: 1263  
DG Class: 3

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Proper Shipping Name: Paint related products  
Packing Group: III  
Marine Pollutant: Yes  
EmS-No F-E, S-E

### Classification for AIR transport (IATA/ICAO)

U.N. Number: 1263  
DG Class: 3  
Proper Shipping Name: Paint related products  
Packing Group: III

### Label



## SECTION 15 – REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

National and local regulations must be observed. For information on labeling please refer to section 2 of this document.

**Poisons Schedule Number: S5**

**Australian Inventory:  
Controlled Schedule  
Carcinogenic Substances:**

Listed  
Not listed substances

## SECTION 16 – OTHER INFORMATION

Safety Data Sheets are updated regularly. Please ensure you have a current copy. SDS can be obtained from our website: [www.envirosystems.com.au](http://www.envirosystems.com.au)  
The SDS should be used to assist in the Risk Management. Many other factors determine whether the reported Hazards are risks in any given workplace.  
Specific Risks may be determined by reference to various Exposure Scenarios, Scale of use, Frequency of use and current or available engineering controls must be considered.  
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Emergency Telephone: Info Safe – 1800 638 556, Poisons Centre – 13112