

SAFETY DATA SHEETS (SDS)

Enviro Prime AC Part B



Version: 2

Issued by: Envirosystems Technologies

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Hazard Identifiers



SECTION 1 – IDENTIFICATION OF MATERIAL & SUPPLIER

- 1.1 Product Name:** Enviro Prime AC Part B
Manufacturer's Product Code: N/A
- 1.2 Recommended Use:** Part B of a two component, epoxy coating
- 1.3 Company:** Envirosystems Technologies Pty Ltd
Address: 295 Princes Highway St Peters, NSW 2044.
Website: www.envirosystems.com.au
Telephone: +61 2 85958699 (business hours)
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
P-Code	Precautionary Statement - Prevention
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
P-Code	Precautionary Statement - Response
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
P-Code	Precautionary Statement - Storage
P405	Store locked up
P235, P403	Store in a cool well-ventilated area
P-Code	Precautionary Statement - Disposal
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

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 (CO₂), 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

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

9.2 **Other information** None available

SECTION 10 – STABILITY AND REACTIVITY

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

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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

Microorganisms/Effect on sludge	CAS 2855-13-2 aminomethyl-3, 5, 5-trimethylcyclohexylamine IPD 1120 mg/l (<i>Pseudomonas putida</i>) (EC10(18h))
Persistence and degradability	No information available.
Bioaccumulative potential	Partition coefficient 2-Methylpropan-1-ol = 0.79 Xylene = 3.15 Formaldehyde = 0.35 Ethylbenzene = 3.118
Mobility in soil	No information available.
Additional Information	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
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