

SAFETY DATA SHEETS (SDS)

Enviro HP1200 AC Part B



Hazard Identifiers

Version: 3

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SECTION 1 – IDENTIFICATION OF MATERIAL & SUPPLIER

- 1.1 Product Name:** Enviro HP1200 AC Part B
Manufacturer's Product Code: N/A
- 1.2 Recommended Use:** Part B of a two component, polyurethane 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
Acute Toxicity (oral)	4
Skin corrosion / irritation	1A
Eye Damage / Irritation	1
Skin Sensitizer	1
Aquatic Hazard - Acute	3
Aquatic Hazard - Chronic	3

- 2.2 Label Elements**



Signal word

Danger

H-code	Hazard Statements
H302	Harmful if swallowed
H314	Causes serious skin burns and eye damage.
H317	May cause an allergic skin reaction
H318	Cause serious eye damage
H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects
P-Code	Precautionary Statement - Prevention

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P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P203	Read label before use.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves, clothing, eye and face protection
P270	Do not eat drink or smoke while using this product
P273	Avoid release to the environment.
P272	Contaminated work clothing should not be allowed out of the workplace
P-Code	Precautionary Statement - Response
P301, P330, P331	If swallowed: Rinse mouth, do not induce vomiting.
P303, P361, P353	If on skin: Remove immediately all contaminated clothing. Rinse skin with water / shower.
P305, P351, P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P337, P313	If eye irritation persists: Get medical advice/attention.
P310	Immediately call a Poison Centre or doctor / physician
P363	Wash contaminated clothing before reuse.
P33, P313	If skin irritation or rash occurs, get medical advice / attention.
P301, P312	If swallowed: Call a poison center or doctor / physician if you feel unwell.
P314	Get medical advice/attention if you feel unwell.
P391	Collect spillage.
P-Code	Precautionary Statement - Storage
P405, P303, P235	Store locked up in a cool well-ventilated area
P-Code	Precautionary Statement - Disposal
P501	Dispose of contents / containers to hazardous or special waste collection point. 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 %
9046-10-0	Polypropylene glycol bis(2-aminopropyl ether)	30-60
90530-15-7	Acrylonitrile amine adduct	10-30
41556-26-7	Bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate	<2.5
None	Classified as non hazardous by GHS	remaining

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,

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place patient in recovery position and transport accordingly. Apply artificial respiration if necessary. First aid personal should pay attention to the own safety.

(Once mixed with other parts read all the SDSs and follow the serious responses)

Ingestion:

Urgent hospital treatment is likely needed. Do not induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Wash mouth with water then provide liquid slowly and as much as casualty can comfortably drink. Never give liquid to a person showing signs of being sleepy or with reduced awareness. Transport to hospital or doctor without delay.

Inhalation:

If fumes, aerosols or combustion products are inhaled remove from contaminated area. Lay patient down keep warm and well rested. Seek medical attention without delay.

Eye Contact:

While holding eyes open, gently flood with plenty of fresh water for 15 minutes. Seek medical attention without delay; if pain persists or recurs 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 (15 mins), shower if available. Seek medical attention without delay; if pain persists or recurs seek medical attention. 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 | Treat symptomatically. Contains highly alkaline amines. |

SECTION 5 – FIRE FIGHTING MEASURES

- | | | |
|------------|--|---|
| 5.1 | Extinguishing media | Suitable extinguishing media:
Foam.
Dry chemical powder.
BCF (where regulations permit).
Carbon dioxide.
Water spray or fog - Large fires only.

Unsuitable extinguishing media that may not be used for safety reasons:
None known |
| 5.2 | Special hazards arising from the substance or mixture | Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result. |
| 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. Combustible. Slight fire hazard when exposed to heat or flame. Heating may cause expansion or decomposition leading to violent rupture of containers. Combustion products include: carbon dioxide (CO ₂), nitrogen oxides (NO _x) and other pyrolysis products typical of burning organic material. |

HAZCHEM 2X

SECTION 6 – ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures** All spills should be attended immediately. 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.
- 6.2 Environmental precautions** Do not discharge into sewers or waterways and soil.
- 6.3 Methods and material for containment and cleaning up** Small spills should be absorbed with dry, inert filler (soil or sand) which then can be shoveled into appropriately labeled drums for disposal. Disposal of this material should be undertaken by a registered chemical disposal company. May be violently or explosively reactive. Wear breathing apparatus plus protective gloves.
- Major spills. Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course. Neutralize / decontaminate residue (section 13)
- 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** **Contains low boiling substance.** Provide for fresh air ventilation. Do not inhale the vapor. Avoid contact with skin and eyes. Do not drink or eat during work – no smoking. Comply with the health and safety laws at work. Prevent concentration in hollows and sumps. DO NOT enter confined spaces until atmosphere has been checked. Store in original containers and check for bulging containers.
- 7.2 Conditions for safe storage** **Storage Requirements:** Keep containers securely sealed. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Suitable containers are metal cans or drums.
Incompatible materials: Avoid contact with copper, aluminum and their alloys. Avoid strong acids, acid chlorides, acid anhydrides and chloroformates. Avoid reactions with oxidizing agents.
Temperature Conditions: 5 to 35° 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 polyurethane coating.
- 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: Worksafe
- | | | |
|------------|-----|------|
| Ingredient | TWA | STEL |
|------------|-----|------|

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Not Available		
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Emergency limits:

Ingredient	TEEL-1	TEEL-2	TEEL-3
Polypropylene glycol bis(2-aminopropyl ether)	0.73mg/m ³	8mg/m ³	48mg/m ³

8.2 Exposure controls

General protection and hygiene measures:

Avoid exposure. Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols. 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. Air quality should be checked regularly in accordance with AS/NZS 1715. Use dilution ventilation systems to dilute and displace contaminated air with fresh air supplied to the work area by mechanical exhaust fans (make sure explosion and spark proof equipment as solvents are used) or natural air currents through doors, windows or other openings in the building.

Personal protection equipment:

Respiratory protection

Avoid breathing of vapors/gases. Use respirators in accordance with AS/NZS 1715/1716. The use of a respirator for organic vapors, sulfur dioxide, ammonia with (disposable) or with replaceable filters is recommended. Filter capacity and respirator type depends on exposure levels and type of contaminant. If entering spaces where the airborne concentration of a contaminant is unknown then the use of a self-contained breathing apparatus (SCBA) with positive pressure air supply complying with AS/NZS 1715/1716, or any other acceptable International Standard is recommended.

Eye protection

Chemical goggles. Full face respiratory may be required if exposure causes discomfort. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.

Hand protection

Wear chemical protective gloves, e.g. PVC, Viton, nitrile rubber. The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice especially when several other chemicals are used.

Skin protection

Low static overalls clothing. A protective suit may be required if exposure severe. Do not use barrier creams.

Other Information

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

Please ensure adequate ventilation. Keep containers closed when not in use.

SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES

9.1	Odour:	Not Determined
	Odour Threshold	No test data available
	Colour:	Hazy to milky
	Physical State:	Liquid

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Flash Point:	Not Determined
Boiling Point:	Not Determined
Melting Point:	Not Determined
Specific Gravity:	0.99
pH (5% solution):	Not Determined
Solubility in Water (g/L):	Not Available
Flammability:	Not Determined
Explosive Lower Limit:	Not Determined
Explosive Higher Limit:	Not Determined
Vapour Pressure:	Not Available
Vapour Density (Air = 1)	Not Determined
Volatile component	Not Determined
Auto-ignition temperature (°C)	Not Determined
9.2 Other information	None available

SECTION 10 – STABILITY AND REACTIVITY

10.1 Reactivity; Chemical stability; -3 Possibility of hazardous reactions	If stored and handled in accordance with standard industrial practices not hazardous reactions are known. Unstable in the present of incompatible material.
10.4 Conditions to avoid	Avoid all sources of ignition: heat, sparks, open flame. See SDS section 7 - Handling and storage.
10.5 Incompatible materials	See section 7, Strong alkalis, strong acids, strong oxidizing agents, alcohols, amines, carboxylic acids and water.
10.6 Hazardous decomposition products	See section 5, Combustion products include: carbon dioxide (CO ₂), nitrogen oxides (NO _x) and other pyrolysis products typical of burning organic material.

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity/Effects

Polypropylene glycol bis(2-aminopropyl ether):

Acute toxicity

Dermal (rabbit) LD50: 250 mg/kg

Oral (rat) LD50: 242 mg/kg

Irritation

Eye (rabbit): SEVERE

Bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate:

Acute toxicity

Oral (rat) LD50: 3100 mg/kg

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Eyes:

This material causes eye chemical burns to the eye following direct contact. Vapors and mist can be extremely irritating. Mild cases often resolve, severe cases can be prolonged and have swelling scarring, cataracts and blindness.

Skin:

Skin contact with amine catalysts poses a number of concerns. Direct skin contact can cause moderate to severe irritation and injury-i.e., from simple redness and swelling to painful blistering, ulceration, and chemical burns. Repeated or prolonged exposure may also result in severe cumulative dermatitis. Skin contact with some amines may result in allergic sensitisation. Sensitised persons should avoid all contact with amine catalysts. Systemic effects resulting from the absorption of the amines through skin exposure may include headaches, nausea,

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faintness, anxiety, decrease in blood pressure, reddening of the skin, hives, and facial swelling. These symptoms may be related to the pharmacological action of the amines, and they are usually transient.

Inhaled:

Inhalation of vapors may, depending upon the physical and chemical properties of the specific product and the degree and length of exposure, result in moderate to severe irritation of the tissues of the nose and throat and can irritate the lungs. Products with higher vapour pressures have a greater potential for higher airborne concentrations. This increases the probability of worker exposure. Higher concentrations of certain amines can produce severe respiratory irritation, characterised by nasal discharge, coughing, difficulty in breathing, and chest pains. Chronic exposure via inhalation may cause headache, nausea, vomiting, drowsiness, sore throat, bronchopneumonia, and possible lung damage. Also, repeated and/or prolonged exposure to some amines may result in liver disorders, jaundice, and liver enlargement. Some amines have been shown to cause kidney, blood, and central nervous system disorders in laboratory animal studies. While most polyurethane amine catalysts are not sensitizers, some certain individuals may also become sensitized to amines and may experience respiratory distress, including asthma-like attacks, whenever they are subsequently exposed to even very small amounts of vapor. Once sensitized, these individuals must avoid any further exposure to amines. Although chronic or repeated inhalation of vapor concentrations below hazardous or recommended exposure limits should not ordinarily affect healthy individuals, chronic overexposure may lead to permanent pulmonary injury, including a reduction in lung function, breathlessness, chronic bronchitis, and immunologic lung disease. Inhalation hazards are increased when exposure to amine catalysts occurs in situations that produce aerosols, mists, or heated vapors. Such situations include leaks in fitting or transfer lines. Medical conditions generally aggravated by inhalation exposure include asthma, bronchitis, and emphysema.

Ingestion:

The oral toxicity of amine catalysts varies from moderately to very toxic. Some amines can cause severe irritation, ulceration, or burns of the mouth, throat, esophagus and gastrointestinal tract. Material aspirated (due to vomiting) can damage the bronchial tubes and the lungs. Affected persons also may experience pain in the chest or abdomen, nausea, bleeding of the throat and the gastrointestinal tract, diarrhea, dizziness, drowsiness, thirst, circulatory collapse, coma, and even death.

Chronic Toxicity/Effects

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Repeated or prolonged exposure to corrosives may result in erosion of the teeth, inflammatory and ulcers in the mouth and rarely necrosis of the jaw. Both Skin contact and inhalation can cause sensitization in some people. There is a concern that this material causes cancer however there is not enough evidence to make an assessment. Inhalation of epoxy amine hardeners may produce bronchospasm and coughing lasting days after exposure of even a faint trace.

Long Term Effects:

No new information.

SECTION 12 – ECOLOGICAL INFORMATION

Toxicity

Polypropylene glycol bis(2-aminopropyl ether):

LC50 96hrs fish 772.14 mg/L Europe ECHA register

EC50 48hrs crustacean 80mg/L Europe ECHA register

EC50 72hrs algae and aqua plants 15mg/L Europe ECHA register

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EC50 72hrs algae and aqua plants 2.1mg/L Europe ECHA register
NOEC 72hrs algae and aqua plants 0.32mg/L Europe ECHA register

Bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebate:

LC50 96hrs fish 0.34 mg/L IUCLID toxic data
EC50 24hrs crustacean <10mg/L IUCLID toxic data

Microorganisms/Effect on sludge	No Data available
Persistence and degradability	No Data available
Bioaccumulative potential	No Data available
Mobility in soil	No Data available
Additional Information	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. DO NOT discharge into sewer or waterways.

SECTION 13 – DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

A Hierarchy of Controls seems to be common - the user should investigate:

Reduction
Reuse
Recycling
Disposal (if all else fails)

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. DO NOT allow wash water from cleaning or process equipment to enter drains. It may be necessary to collect all wash water for treatment before disposal. In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. Where in doubt contact the responsible authority.

Recycle wherever possible or consult manufacturer for recycling options. Consult State Land Waste Authority for disposal. Bury or incinerate residue at an approved site. Recycle containers if possible, or dispose of in an authorised landfill.

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: 2735
DG Class: 8
EPG card: N/A
Hazchem Code: 2X
Proper Shipping Name: Amines liquid Corrosive NOS (contains Polypropylene glycol bis(2-aminopropyl ether))
Packing Group: III
Poison Schedule: S5

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Classification for SEA transport (IMO-IMDG)

U.N. Number: 2735
DG Class: 8
Proper Shipping Name: Amines liquid Corrosive NOS (contains Polypropylene glycol bis(2-aminopropyl ether))
EMS Number: F-A, S-B
Packing Group: III
Marine Pollutant: No

Classification for AIR transport (IATA/ICAO)

U.N. Number: 2735
DG Class: 8
Proper Shipping Name: Amines liquid Corrosive NOS (contains Polypropylene glycol bis(2-aminopropyl ether))
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: Not applicable

Australian Inventory: Controlled Schedule

Listed
Not listed substances

Carcinogenic 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