SAFETY DATA SHEETS (SDS)
Enviro Epoxy WB Part A

Version: 2

Issued by: Envirosystems Technologies

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Hazard Identifiers

SECTION 1 – IDENTIFICATION OF MATERIAL & SUPPLIER

1.1	**Product Name:**	Enviro Epoxy WB Part A
	Manufacturer's Product Code:	N/A
1.2	**Recommended Use:**	Part A 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
Skin Corrosion/Irritation	2
Eye Irritation	2a
Skin Sensitizer	1
Acute Aquatic Hazard	2
Chronic Aquatic Hazard	2

2.2 Label Elements

Signal word **Warning**

H-code	Hazard Statements
H315	Causes skin irritation
H319	Causes serious eye irritation
H317	May cause an allergic skin reaction
H401	Toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects
P-Code	**Precautionary Statement - Prevention**
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves / protective clothing / eye

	protection / face protection
P273	Avoid release to the environment.
P272	Contaminated work clothing should not be allowed out of the workplace.
P-Code	**Precautionary Statement - Response**
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.
P302, P352	If on Skin: Wash with plenty of water and soap
P313, P333	If skin irritation or rash occurs: Get medical advice/attention.
P337, P313	If eye irritation persists: Get medical advice/attention.
P362, P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.
P-Code	**Precautionary Statement - Storage**
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
3.2 Mixtures

See section below for Mixtures

CAS No.	Material	Content %
25068-38-6	bisphenol A/ epichlorohydrin resin, liquid	10-20
55492-52-9	bisphenol F/ epichlorohydrin copolymer	5-10
107-98-2	propylene glycol monomethyl ether - alpha isomer	1.7-7.5
100-51-6	benzyl alcohol	1.7-7.5

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 reparation if necessary. First aid personal should pay attention to the own safety.

Ingestion:
Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Inhalation:
Keep patient calm and remove to fresh air. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if

necessary. Transport to hospital, or doctor 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, shower if availed. Seek medical attention if irritation occurs. 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

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) and alcohols stable foams. Water spray or fog - Large fires only. Unsuitable extinguishing media that may not be used for safety reasons: Do not use direct water jet/stream as it might spread the fire.
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. 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. **Hazchem: 3Z**

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.
6.2	**Environmental precautions**	Do not discharge into sewers or waterways and soil.
6.3	**Methods and material for containment and cleaning up**	Small or major 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.
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: fire extinguishers should be kept handy. Avoid all personal contact, including inhalation. Do NOT allow clothing wet with material to stay in contact with skin. Do NOT enter confined spaces until atmosphere has been checked.

7.2 Conditions for safe storage

Storage Requirements:
Store in a cool, dry area away from incompatible materials. Avoid reaction with oxidising agents. Use a metal can or drum.
Temperature Conditions:
Up to 40º 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 an epoxy 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:

Ingredient	TWA	STEL
propylene glycol monomethyl ether - alpha isomer	100ppm or 369 mg/m3	150ppm or 553 mg/m3

Emergency limits:

Ingredient	TEEL-1	TEEL-2	TEEL-3
bisphenol A/ diglycidyl ether resin, liquid	90 mg/m3	990 mg/m3	5900ppm
propylene glycol monomethyl ether - alpha isomer	100ppm	160ppm	660ppm
benzyl alcohol	30ppm	52ppm	740ppm

8.2 Exposure controls

General protection and hygiene measures:
Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection.. 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

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent) Respiratory protection should be worn. When exposure limits are exceeded continuous-flow or positive pressure is required.

Eye protection

Chemical goggles or safety glasses with side shields. Full face respiratory may be required if exposure causes discomfort.

Hand protection

Use handling liquid-grade epoxy resins wear chemically protective gloves (e.g nitrile or nitrile-butatoluene rubber) and theses should only be used for short term immersion only. DO NOT use cotton or leather, polyvinyl chloride, rubber or polyethylene gloves (which absorb the resin).

Skin protection

Overalls clothing

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:**	Not Available
	Odour Threshold	No test data available
	Colour:	Milky white
	Physical State:	liquid
	Flash Point:	Not Available
	Boiling Point:	Not Available
	Melting Point:	Not Available
	Specific Gravity:	1.08
	pH (5% solution):	Not Available
	Solubility in Water (g/L):	Miscible
	Flammability:	Not Available
	Lower Limit:	Not Available
	Higher Limit:	Not Available
	Vapour Pressure:	Not Available
	Vapour Density (Air = 1)	Not Available
	Volatile component	Not Available
9.2	**Other information**	None available

SECTION 10 – STABILITY AND REACTIVITY

10.1 -3	**Reactivity; Chemical stability; 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**	See section 7
10.5	**Incompatible materials**	See section 7
10.6	**Hazardous decomposition products**	See section 5

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity/Effects

Enviro Epoxy WB part A:
Acute toxicity
Dermal (Rat) LD50: >20000 mg/kg
Inhalation (Rat) LC50: >5000 mg/m3/4h
Oral (Rat) LD50: >2000 mg/kg

Irritation
Eye : Moderate
Skin : Moderate

bisphenol A/ diglycidyl ether resin, liquid:
Acute toxicity
dermal (rat) LD50: >800 mg/kg
Oral (rat) LD50: 13447 mg/kg

Irritation
Eye (rabbit): 100mg - Mild

bisphenol F/ epichlorohydrin copolymer:
Acute toxicity
dermal (rat) LD50: >400 mg/kg
Oral (rat) LD50: >2000 mg/kg

propylene glycol monomethyl ether - alpha isomer:
Acute toxicity
dermal (rat) LD50: >2000 mg/kg
Inhalation (rat) LC50: 10000 ppm/5 hr
Oral (rat) LD50: 5207.2 mg/kg

Irritation
Eye (rabbit) 230 mg mild
Eye (rabbit) 500 mg/24 h. - mild
Eye (rabbit): 100 mg SEVERE
Skin (rabbit) 500 mg open - mild

benzyl alcohol:
Acute toxicity
dermal (rat) LD50: 1000000 ppm
Inhalation (rat) LC50: >4.178 mg/L/4hr
Oral (rat) LD50: 1560 mg/kg

Irritation
Eye (rabbit): 0.75 mg open SEVERE
Skin (man): 16 mg/48h-mild
Skin (rabbit):10 mg/24h open-mild

Chronic Toxicity/Effects

BISPHENOL A/ DIGLYCIDYL ETHER RESIN, LIQUID:
The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans.

Intracutaneous injection of diluted Bisphenol A diglycidyl ethers (0.1 mL) three times per week on alternate days (total of 8 injections) followed by a three-week incubation period and a challenge dose produced sensitisation in 19 of 20 guinea pigs

BISPHENOL F/ EPICHLOROHYDRIN COPOLYMER:
Epoxy resin products may contain sensitising glycidyl ethers, even when these are not mentioned in the information given for the product. Limited animal studies have indicated that bisphenol A diglycidyl ethers may be potential carcinogens
PROPYLENE GLYCOL MONOMETHYL ETHER - ALPHA ISOMER:
Exposure of pregnant rats and rabbits to the substance did not give rise to teratogenic effects at concentrations up to 3000 ppm. Foetotoxic effects were seen in rats but not in rabbits at this concentration; maternal toxicity was noted in both species.

BENZYL ALCOHOL:
The available studies for Benzyl alcohol for a sensitising effect gave positive and negative results in animals. Benzyl alcohol also demonstrated a maximum incidence of sensitization of only 1% in human patch testing. Over several decades no sensitization with these compounds has been seen among workers.

Long Term Effects: See section above.

SECTION 12 – ECOLOGICAL INFORMATION

Toxicity

bisphenol A/diglycidyl ether resin, liquid:
LC50 96 Fish 1.2mg/L Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity
EC50 72 Algae or other aquatic plants 9.4mg/L Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity
EC50 24 Crustacea 3.6mg/L Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity
NOEC 72 Algae or other aquatic plants 2.4mg/L Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity

bisphenol F/ epichlorohydrin copolymer:
LC50 96 Fish 0.55mg/L Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity
EC50 48 Crustacea 1.6mg/L Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity
EC50 72 Algae or other aquatic plants >1.8mg/L Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity
EC50 24 Crustacea 3.2mg/L Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity

propylene glycol monomethyl ether - alpha isomer:
LC50 96 Fish 1005.858mg/L EPIWIN Suite V3.12 - Aquatic Toxicity Data (Estimated)
EC50 48 Crustacea >500mg/L IUCLID Toxicity Data
EC50 96 Algae or other aquatic plants 7152.973mg/L EPIWIN Suite V3.12 - Aquatic Toxicity Data (Estimated)
EC50 384 Crustacea 227.843mg/L E PIWIN Suite V3.12 - Aquatic Toxicity Data (Estimated)
NOEC 96 Fish =4600mg/L IUCLID Toxicity Data

Do NOT discharge into sewer or waterways

Microorganisms/Effect on sludge No data available

Persistence and degradability bisphenol A/ diglycidyl ether resin, liquid:

water/soil HIGH, Air HIGH

propylene glycol monomethyl ether - alpha isomer:
water/soil LOW (Half-life = 56 days), air LOW (Half-life = 1.7 days)

benzyl alcohol:
water/soil LOW, air LOW

Bioaccumulative potential

bisphenol A/ diglycidyl ether resin, liquid:
LOW (LogKOW = 2.6835)

propylene glycol monomethyl ether - alpha isomer:
LOW (BCF = 2)

benzyl alcohol:
LOW (LogKOW = 1.1)

Mobility in soil

bisphenol A/ diglycidyl ether resin, liquid:
LOW (KOC = 51.43)

propylene glycol monomethyl ether - alpha isomer:
HIGH (KOC = 1)

benzyl alcohol:
LOW (KOC = 15.66)

Additional Information

None

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. Do **NOT** allow wash water from cleaning or process equipment to enter drains.

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 Non-Dangerous Good according to the Australian Code for the Transportation of Dangerous Goods by Road and Rail.

Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to this Code when transported by road or rail in;

(a) packagings;
(b) IBCs; or
(c) any other receptacle not exceeding 500 kg(L).
- Australian Special Provisions (SP AU01) - ADG Code 7th Ed

	U.N. Number:	3082
	DG Class:	9
	EPG card:	N/A
	Hazchem Code:	3Z
	Proper Shipping Name:	Environmentally hazardous substance, liquid, n.o.s. *
	Packing Group:	3
	Poison Schedule	S5
Classification for SEA transport (IMO-IMDG)	U.N. Number:	3082
	DG Class:	9
	Proper Shipping Name:	Environmentally hazardous substance, liquid, n.o.s. *
	Packing Group:	III
	Marine Pollutant:	Yes
Classification for AIR transport (IATA/ICAO)	U.N. Number:	3082
	DG Class:	9
	Proper Shipping Name:	Environmentally hazardous substance, liquid, n.o.s. *
	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: Listed
Controlled Schedule 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.

Emergency Telephone: Info Safe – 1800 638 556, Poisons Centre – 13112