MATERIAL SAFETY DATA SHEET

SWANCOR 905-2

EMERGENCY CONTACT PHONE: 02 4272 3005 business hours, or 000

Chemical identification: Epoxy Vinyl Ester Resin

Recommended use: Binder

Identification of the company: Swancor Ind. Co. Ltd,
Nan-Tou City, Taiwan 54066 R.O.C.

Supplier: **AA Composites International Pty Ltd**
Unit 4, 23 Londor Close. Hemmant Q4174
Ph: 0444568646 sales@aaci.au

2. HAZARDS IDENTIFICATION

Classified according to the Australian Approved Criteria for Classifying Hazardous Substances and the ADG code.

Hazard Classification: HAZARDOUS SUBSTANCE. DANGEROUS GOODS

Risk Phrases
R10 Flammable
R20 Harmful by inhalation
R36/38 Irritating to eyes and skin

Safety Phrases
S23 Do not inhale gas/fumes/vapour/spray

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Proportion
EPOXY VINYL ESTER RESIN	068610-47-9	50% - 60%
STYRENE	000100-42-5	40 - 50%

4. FIRST AID MEASURES

Remove soiled or soaked clothing immediately. Launder contaminated clothing before re-use.

If Swallowed: Do not induce vomiting. Keep person warm, quiet and seek medical aid immediately. Aspiration of material into the lungs can cause chemical pneumonitis.

If in Eyes: Immediately rinse eyes thoroughly, including under eyelids, with running water for at least 15 minutes and seek medical advice

If on Skin: Wash off immediately with soap and plenty of water.

If Inhaled: Remove from the source of vapour/dust/spray/fumes to open space or fresh air. Keep person warm, quiet and seek medical aid immediately. If breathing is difficult, give oxygen.

Note to physician:
Because rapid absorption may occur through the lungs if aspirated and cause systemic effects, the decision of whether or not to induce vomiting should be made by the attending physician. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. No specific antidote.

MATERIAL SAFETY DATA SHEET

SWANCOR 905-2

5. FIRE FIGHTING MEASURES

Flash Point:	31°C for Styrene
Extinguishing Media:	Water fog, fine water spray, alcohol resistant foam carbon dioxide or dry agent. Do not use full water jets.
Special Fire Fighting Procedures:	Firefighters should use positive pressure self-contained breathing apparatus and protective clothing boots and gloves
Reactivity: Hazards:	Dense smoke is produced. Vapours are heavier than air and may travel a long distance and accumulate in low areas. Violent steam generation may occur on application of direct water stream. Flammable mixtures exist within the headspace of containers at room temperature. In use, may form flammable/explosive vapor-air mixture.
Fire/Explosion/ Decomposition Hazards:	Take precautions against electrostatic charging. Hazardous combustion gases are formed –carbon monoxide, carbon monoxide, various hydrocarbons

Aquatic, Air or Soil Environmental
Hazards: Do not allow the product to enter waste water, rivers or creeks.

6. ACCIDENTAL RELEASE MEASURES

Environmental precautions:	Do not allow to enter soil or waterways. If the product enters drains notify the relevant authorities immediately.
Methods for cleaning up:	Eliminate all ignition sources. Pump with explosion-proof equipment. Remove residual with hot soapy water. Residual can be removed with solvent, but are not recommended unless exposure guidelines and safe handling practices for the solvent are followed. See MSDS for solvent. Pick up with absorbent material (eg sand, kieselgur, universal binder, sawdust)

7. HANDLING AND STORAGE

Handling:	Provide good ventilation of working area (local exhaust ventilation if necessary) Avoid sources of static electricity during handling – ground and bond containers when transferring material. Use spark proof tools and explosion proof equipment. During processing and handling of the product, comply with occupational exposure limit values.
Storage:	Keep away from sources of ignition – no smoking. Do not store in direct sunlight. Take precautionary measures against electrostatic loading. Keep container tightly closed, cool and dry. Avoid oxidising agents, peroxides, metal salts. Empty containers may retain product residue. Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to sources of ignition. Copper or copper containing alloy containers should be avoided. Store below 25°C

MATERIAL SAFETY DATA SHEET

SWANCOR 905-2

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit values
Styrene monomer; TWA 50 ppm, 213 mg/m3
STEL 100 ppm 426 mg/m3

TWA: Long term exposure limit, 8 hour reference period
STEL: Short term exposure limit, 15 minute reference period

Personal protection:

Remove soiled or soaked clothing immediately

Eyes: Wear chemical splash goggles.

Clothing: Wear suitable protective clothing.

Gloves: Wear nitrile or fluorinated rubber gloves.

Respiratory: Use respiratory protection in case of insufficient exhaust ventilation or prolonged exposure

Other: Do not eat, drink or smoke until after washing.
Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Viscous liquid
Colour:	Yellow
Odour:	Styrene
Boiling Point:	1452°C
Melting Point:	-30.6°C
Vapour pressure:	4.3 mm Hg @25°C
Density:	1.04 $\pm$ 0.02 @ 25°C
Vapour Density:	3.6
Percent volatile:	Not available
pH:	Not available
Saturation in air:	Not available (% by volume)
Evaporation Rate:	Slower than ether
Solubility in water:	Insoluble
Volatile Organic Content	Not available
Flash Point:	31°C
Flammable limits: % by volume	Lower: 1.1, Upper: 7.0
Autoignition Temperature:	Not available
Decomposition temperature	Not available
Partition coefficient (n-octanol/water)	Not available

10. STABILITY AND REACTIVITY

Chemical Stability:
Stable at room temperature

MATERIAL SAFETY DATA SHEET

SWANCOR 905-2

10. STABILITY AND REACTIVITY (contd)

Conditions to avoid:

Exposure to excessive heat or direct sunshine or direct flame: storage in open containers: storage above 38^{o}C: contamination with oxidising agents.

Hazardous polymerisation:

May occur

Hazardous decomposition products:

Carbon monoxide, carbon dioxide, low molecular weight hydrocarbon, organic acids.

Materials to avoid:

Strong mineral acids, strong alkalis, oxidising agents.

11. TOXICOLOGICAL INFORMATION

Acute toxicity: LD50 – oral, rat >4,000 mg/kg
Acute toxicity: LC50 – oral, rat >5,000 ppm/4h
Acute toxicity: LD50 – skin, rabbit >2,000 mg/kg

Mutagenenicity:
For styrene: in vitro Mutagenicity studies were inconclusive. Animal Mutagenicity tests were inconclusive

12. ECOLOGICAL INFORMATION

Information on the product:
Do not allow to enter soil, waterways and waste water
LC50: 25.1 – 74.8mg/L/96h
BCF: 13.5

Material is readily biodegradable. Reaches more than 70% mineralisation in OECD tests for inherent biodegradability

13. DISPOSAL CONSIDERATIONS

Product

Do not dispose of in sewers, on the ground, into any body of water.
Incineration in a suitable incineration plant, observing local authority regulations

Uncleaned packaging

Packaging should be disposed of as product waste

14. TRANSPORT INFORMATION

Dangerous Goods:	Yes				
Shipping Name:	RESIN SOLUTION				
Product Class:	3	Product Sub-Risk:	N/A	U.N. Number:	1866
Packing Group:	III	HAZCHEM Code:	3[Y]	EGP Number:	N/A

MATERIAL SAFETY DATA SHEET

SWANCOR 905-2

15. REGULATORY INFORMATION

All components of this product are listed on the Australian Inventory of Chemical Substances (AICS).

R10	Flammable
R36/38	Irritating to eyes and skin
R20	Harmful by inhalation.
S23	Do not inhale gas/fumes/spray

16. OTHER INFORMATION

Revision History

28th Sep 2023	First issue of MSDS in AACI format

Data Sources/References

Swancor Industrial Corp. Ltd. – MSDS.

This MSDS summarises to our best knowledge the health and safety hazard information for the product and how to safely handle and use the product in the workplace. Each user should read the MSDS and consider the information in the context of how the product will be handled and used in the workplace, including in conjunction with other products.

If clarification or further information is needed to ensure that appropriate risk assessment can be made then the user should not hesitate to contact AA Composites International Pty Ltd

Our responsibility for products sold is subject to our standard Conditions of Sale, a copy of which is sent to all customers. It is also available on request.