

MATERIAL SAFETY DATA SHEET**SWANCOR 933-TP**

Emergency telephone: 02 4272 3005 Business hours or '000'**1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

Trade name: Swancor 933-TP

Chemical identification: Unsaturated Polyester Resin

Recommended use: Hardener for epoxy resin

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

Supplier: Pacific Resins Pty Ltd, PO Box 495, Figtree 2526

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
POLYMER		50 – 70%
STYRENE	000100-42-5	30 – 50%

4. FIRST AID MEASURES

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

If Swallowed: Do not induce vomiting. Give plenty of water. Seek medical aid immediately. Do not give anything by mouth to an unconscious person.

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. Seek medical advice if symptoms persist

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Flash Point:	31°C for Styrene
Extinguishing Media:	Water fog, fine water spray, alcohol resistant foam or dry agent. Carbon dioxide and sand Do not use full water jets.
Special Fire Fighting Procedures:	Firefighters should use respiratory protection, protective clothing and gloves
Reactivity: Hazards:	Dense smoke is produced. Vapours are heavier than air and may travel a long distance and accumulate in low areas. 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. In case of fires, hazardous combustion gases are formed –carbon monoxide and carbon monoxide
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. 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. During processing and handling of the product, comply with occupational exposure limit values.
Storage:	Keep away from sources of ignition – no smoking Store in closed containers at less than 25°C Take precautionary measures against electrostatic loading. Keep container tightly closed, cool and dry Empty containers may retain product residue. Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to sources of ignition. Empty drums should be completely drained and properly bunged.

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

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Personal protection

Eyes:	Wear safety 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid
Colour:	Purple /red
Odour:	Styrene
Boiling Point:	145.2°C
Melting Point:	-30.6°C
Vapour pressure:	4.3 mm Hg @20°C
Specific Gravity:	1.09 ± 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:	Lower: 1.1, Upper: 7.0 % by volume
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

Conditions to avoid:

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

Hazardous polymerisation:

May occur

Hazardous decomposition products:

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

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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

Styrene is highly toxic to aquatic organisms (LC50/EC50 between 0.1 and 1 mg/L in most sensitive species)
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

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

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16. OTHER INFORMATION

Revision History

20-08-2014: First issue of MSDS in Pacific Resins 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 Pacific Resins 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.