

**MATERIAL SAFETY DATA SHEET****VINYL ESTER SW 901-TP-AU02**

---

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

Trade name: Swancor 901-TP-AU01

Chemical identification: Vinyl Ester Resin

Recommended use: Binder

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.

## 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
VINYL ESTER RESIN	036425-16-8	50-60%
STYRENE	000100-42-5	40-50%
FUMED SILICA	67762-90-7	0.5-4.5%
COBALT SALT	-----	0.1-0.5%

**4. FIRST AID MEASURES**

Remove soiled or soaked clothing immediately

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.

**MATERIAL SAFETY DATA SHEET****VINYL ESTER SW 901-TP-AU02****4. FIRST AID MEASURES (contd)**

Note to physician:

Because rapid absorption may occur through lungs if aspirated and cause systemic effects, the decision whether to induce vomiting or not should be made by an attending physician. If lavage is performed, suggest endotracheal and/or exophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. No specific antidote. Treatment based on judgment of physician in response to reactions of the patient.

**5. FIRE FIGHTING MEASURES**

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 positive pressure, self-contained breathing apparatus, protective clothing and gloves

Reactivity: Dense smoke is produced. Violent steam generation may occur upon application  
Hazards: of direct water stream. Vapours are heavier than air and may travel a long distance. Ignition and/or flashback may occur.  
Flammable.  
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 and 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.  
For large spills, evacuate upwind of spill and contain with dike.Methods for cleaning up: Eliminate all ignition sources.  
Pick up with absorbent material (e.g. 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, 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

**MATERIAL SAFETY DATA SHEET****VINYL ESTER SW 901-TP-AU02****7. HANDLING AND STORAGE (contd)**

Take precautionary measures against electrostatic loading.  
Keep container tightly closed, cool and dry. For maximum stability store below 25°C  
Empty containers may retain product residue. Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to sources of ignition.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

## Exposure limit values

Styrene monomer; TWA 50 ppm, 213 mg/m<sup>3</sup>  
STEL 100 ppm 426 mg/m<sup>3</sup>

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 proof 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	Pinkish translucent liquid
Odour:	styrene odour.
Boiling Point (°C):	145.2*
Melting Point (°C):	-30.6*
Vapour Pressure at 20°C (mm Hg):	4.3 *
Vapour density:	3.6g/l
Specific Gravity at 25°C (H <sub>2</sub> O=1):	1.04 ± 0.02
Percent non-volatile:	50-55
Flash Point (°C):	31 *
Auto ignition temperature (°C):	490
Flammability Limits (%Volume in Air):	1.1 – 7.0 *
Solubility in Water (g/l) at 20 °C:	Very Slight

\* Styrene

## MATERIAL SAFETY DATA SHEET

# VINYL ESTER SW 901-TP-AU02

### 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 decomposition products:	Carbon monoxide, carbon dioxide, low molecular weight hydrocarbon, organic acids.
Hazardous polymerisation may occur	
Materials to avoid:	Strong mineral acids, strong alkalis, oxidising agents.

### 11. TOXICOLOGICAL INFORMATION

Contains styrene, which in animals has been reported to have effects on the following organs: central nervous system, kidney, liver and respiratory tract.

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

Mutagenicity:  
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  
Environmental fate:  
LC50: 25.1 – 74.7/1/96h  
EC50: -  
BCF: 13.5

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

Information on styrene:  
The potential to accumulate in biota and pass through the food chain is low (Log Pow is less than 3)  
Material is readily biodegradable.

### 13. DISPOSAL CONSIDERATIONS

Product  
Incineration in a suitable incineration plant, observing local authority regulations

## MATERIAL SAFETY DATA SHEET

# VINYL ESTER SW 901-TP-AU02

### 13. DISPOSAL CONSIDERATIONS (contd)

#### Uncleaned packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse

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/vapour/spray

### 16. OTHER INFORMATION

#### Revision History

02-11-10: 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.