



MATERIAL SAFETY DATA SHEET

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: CASTING AND EMBEDDING RESIN

Company: Recochem Inc. ABN: 69 010 485 999
Address : 1809 Lytton Road, Lytton, Queensland 4178
Phone: (07) 3308 5200 Fax: (07) 3308 5201
Emergency Telephone Number: (07) 3308 5200 Day, After Hours 1300 131 001

Other Names: None
Manufacturer's Product Code: FIE
Recommended Use: Manufacture of reinforced and filled plastic composites e.g. fibreglass products

SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFIED AS HAZARDOUS ACCORDING TO CRITERIA OF WORKSAFE AUSTRALIA
A DANGEROUS GOODS ACCORDING TO THE CRITERIA OF THE ADG CODE**

Symbols: Xn - Harmful
Risk Phrases: R10 - Flammable
R20 - Harmful by inhalation
R36/38 - Irritating to eyes and skin
Safety Phrases: S2 - Keep out of the reach of children
S23 - Do not breathe vapour/mist

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Composition	CAS Number	Proportion (%)
Chemical Entity		
Unsaturated polyester resin (non hazardous)	Not available	30 - 60
Styrene	100-42-5	30 - 60

SECTION 4 FIRST AID MEASURES

FIRST AID TREATMENT

Swallowed: If swallowed, do NOT induce vomiting. Give a glass of water. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Contact a Poison Information centre or a doctor.
Eye: If in eyes, hold eyes open, flood with water for at least 15 minutes. Seek immediate medical assistance.
Skin: If skin contact occurs, remove contaminated clothing, wipe resin off skin. Wash skin thoroughly with soap and water. Wash clothing before reuse.
Inhaled: Remove victim from exposure if safe to do so. If rapid recovery does not occur, transport to nearest medical facility for additional treatment. Remove contaminated clothing.

First Aid facilities: Potable water should be available to rinse eyes or skin. Provide eye baths and safety showers.

Advice to Doctor: Treat symptomatically.

Additional Information: None available.

SECTION 5 FIRE FIGHTING MEASURES

Specific Hazards: Flammable liquid. Polymerisable in a fire situation. Vapours are heavier than air and can accumulate in low areas. Vapours may travel a considerable distance to a source of ignition and flash back.

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Hazards from combustion products: Carbon monoxide and/or carbon dioxide may be evolved. Styrene produces acrid smoke. May polymerise violently at elevated temperatures.

Fire Fighting Media and Instructions: Heating can cause expansion or decomposition leading to violent rupture of containers. Use water fog or spray, foam, dry agent. Fire-fighters should wear self-contained breathing apparatus.

Additional Information: Hazchem code •3Y.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Observe all local and national regulations.

Spills and Disposal: Shut off all sources of ignition. Increase ventilation. Clear area of all unprotected personnel. Stop leak if safe to do so. Absorb with dry earth, sand or other non-combustible and inert material. Take precautionary measure against static discharge. Ensure electrical continuity by bonding and earthing all equipment.

Methods and Materials for Containment and Clean Up Procedures: For small spills (<1 drum), transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. Use an appropriate absorbent material and dispose of safely. For larger spills (> 1 drum), transfer by means such as a vacuum truck to a salvage tank for recovery or disposal. Retain as contaminated waste. Allow and residues to evaporate or use an appropriate absorbent material and dispose of safely.

SECTION 7 HANDLING AND STORAGE

Precautions for Safe Handling and Storage: Avoid breathing of or contact with material. Use in well ventilated areas. Wash thoroughly after handling. Avoid contact with skin and eyes and clothing. Handle open containers in well ventilated area. Ensure that the workplace is ventilated such that the Occupational Exposure limit is not exceeded. Do not empty into drains. Do not eat, drink or smoke in contaminated areas. Before eating, drinking or smoking, remove contaminated clothing and wash hands. Keep exposure to this product to a minimum.

Dispensing: Electrostatic charges may be generated during transfer. Electrostatic discharge may cause fire. Ensure electrical continuity by earthing all equipment.

Flammability: Flammable.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Standards: National Occupational Health & Safety Commission (NOHSC) Worksafe Australia has set an exposure standard for styrene of 213mg/m³ (50ppm) TWA (8hr) and 426mg/m³ (100ppm) STEL.

Biological Limit Values: No biological limit allocated.

Personal Protective Equipment:

Respiratory Protection: If inhalation risk exists an approved organic vapour respirator (AS/NZS 1715 and 1716) should be worn.

Hand Protection: Use solvent resistant gloves (nitrile, neoprene, butyl rubber or Teflon).

Eye Protection: Eyes should be completely protected with splash resistant goggles with face shield. All surrounding skin should be covered.

Protective Clothing: Use chemical resistant glove/gauntlets, boots and apron. Ensure that all skin areas are completely covered using impermeable gloves, overalls, hair covering and face shield.

Engineering Controls: Ensure that adequate ventilation is provided. Maintain air concentrations below recommended exposure standards. Avoid generating and inhaling mists. Keep containers closed when not in use.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION / CHEMICAL PROPERTIES

Appearance	Clear to opaque, viscous liquid
Odour	Sweet or sharp aromatic
pH:	N/A
Vapour Pressure (mmHg @ 20°C):	No data available
Vapour Density (air = 1)	> 1 @ 15 Deg C
Boiling Point (°C):	145 approx
Freezing/Melting Point (°C):	Not available
Solubility in Water	Insoluble
Specific Gravity (g/ml @ 15°C):	0.9 - 1.1
Flashpoint (°C):	31 (Closed cup)

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Flammability Limits (%): 1.1 – 6.1
Auto Ignition Temperature (°C): 490 (styrene)
Percent Volatiles 33-67%

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: This product is stable under normal conditions and transport.

Conditions to Avoid: Keep away from sunlight, heat, sparks, open flames and other ignition sources.

Incompatible Materials: Avoid contamination with material such as alkylation catalysts (sulphuric acid, phosphoric acid, boron trifluoride, aluminium trichloride), halogen and hydrogen halides, alkali metal-metal graphite compounds and butyl lithium and organic peroxides which catalyse rapid polymerisation of styrene monomer.

Hazardous Decomposition Products: Burning can produce carbon monoxide, carbon dioxide, styrene, methyl methacrylate and acid smoke.

SECTION 11 TOXICOLOGICAL INFORMATION

HEALTH EFFECTS

Acute:

Swallowed: Styrene and may cause irritation to the mouth and throat and abdominal discomfort, nausea and vomiting.

Eye: May cause irritation, discomfort and pain. Produces redness, possible swelling of the eye and possible injury to the cornea.

Skin: May cause irritation and discomfort, redness and swelling. Prolonged contact may cause severe irritation and discomfort.

Inhaled: May cause irritation to the upper respiratory tract and central nervous system effects (dizziness, drowsiness, euphoria, loss of coordination, headache, nausea and vomiting). In poorly ventilated areas or confined spaces, unconsciousness and asphyxiation may result. Inhalation may result in the absorption of potentially harmful amounts of material.

Chronic: Repeated skin contact may cause irritant contact dermatitis (itching, drying, redness).

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity: Styrene is moderately toxic to fish and daphnia and highly toxic to algae.

LC50-96hr: 10mg/litre (Fathead minnow) moderately toxic

EC50-48hr: 4.7mg/litre (Daphnia magna) moderately toxic

EC50-96hr: 0.72 mg/litre (Green algae) highly toxic (algistatic)

Mobility: Styrene is expected to bind to soils and sediments and have low mobility.

Persistence/degradability: Styrene is not expected to persist in the environment.

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal Methods: Ensure waste disposal conforms to local waste disposal regulations.

SECTION 14 TRANSPORT INFORMATION

UN Number:	1866	Proper Shipping Name:	RESIN SOLUTION
Class:	3	Subsidiary Risk:	None allocated
Packing Group:	III	Hazchem Code:	●3Y
Special Precautions for User:	None		

SECTION 15 REGULATORY INFORMATION

Poisons Schedule : 5

AICS : Listed

Dangerous Goods Initial Emergency Response Guide (SAA/SNZ HB76:2010) : 14

SECTION 16 OTHER INFORMATION

Further Information may be obtained by contacting Recochem on (07) 3308 5200

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The information sourced for the preparation of this document was correct and complete at the time of writing to the best of the writer's knowledge. The document represents the commitment to the company's responsibilities surrounding the supply of this product, undertaken in good faith. This document should be taken as a safety guide for the product and its recommended uses but is in no way an absolute authority. Please consult the relevant legislation and regulations governing the use and storage of this type of product.
