



SAFETY DATA SHEET

SECTION 1 IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product Identifier **CASTING AND EMBEDDING RESIN**

Other Names None

Manufacturer's Product Code FIE

Recommended Use Manufacture of reinforced and filled plastic composites e.g. fibreglass products

Details of Supplier/Manufacturer

Company:	Recochem Inc. ABN: 69 010 485 999
Address:	1809 Lytton Road, Lytton, Queensland 4178
Phone:	(07) 3308 5200 Fax: (07) 3308 5201
Website:	www.recochem.com.au



Emergency Telephone Numbers

Business Hours:	(07) 3308 5200
After Hours:	1300 131 001
Poisons Information:	Australia: 13 11 26 New Zealand: 0800 764 766

SECTION 2 HAZARDS IDENTIFICATION

Hazardous chemical	<i>according to classification by Safe Work Australia</i>
Dangerous goods	<i>according to the Australian Code for the Transport of Dangerous Goods by Road and Rail</i>

Signal Word	WARNING
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GHS Classification	Pictogram	Hazard statement
Flammable Liquids, Category 3	 FLAME	H226 Flammable liquid and vapour
Skin Corrosion/Irritation, Category 2	 EXCLAMATION MARK	H315 Causes skin irritation
Eye Damage/Irritation, Category 2A		H319 Causes serious eye irritation
Acute Toxicity – Inhalation, Category 4		H332 Harmful if inhaled

Product: CASTING AND EMBEDDING RESIN**Precautionary statements:**

<i>GENERAL</i>	
P101	If medical advice is needed, have product container or label at hand
P102	Keep out of reach of children
P103	Read label before use
<i>PREVENTATIVE</i>	
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P233	Keep container tightly closed
P240	Ground/bond container and receiving equipment
P241	Use explosion-proof electrical/ventilation/lighting equipment
P242	Use only non-sparking tools
P243	Take precautionary measures against static discharge
P261	Avoid breathing mist/vapours/spray
P264	Wash thoroughly after handling
P271	Use only outdoors or in a well-ventilated area
P280	Wear protective gloves/eye protection/face protection
<i>RESPONSE</i>	
P302 + P352	IF ON SKIN: Wash with plenty of soap and water
P303 + P361 + P353	IF ON SKIN (or hair): Take off contaminated clothing and wash before reuse. Rinse skin with water/shower
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P312	Call a POISON CENTER or doctor/physician if you feel unwell
P332 + P313	If skin irritation occurs: Get medical advice/attention
P337 + P313	If eye irritation persists: Get medical advice/attention
P362	Take off contaminated clothing and wash before reuse
P370 + P378	In case of fire: Use foam/water spray/fog for extinction
<i>STORAGE</i>	
P403 + P235	Store in a well-ventilated place. Keep cool
<i>DISPOSAL</i>	
P501	Dispose of contents/container in accordance with local regulations

SECTION 3 COMPOSITION AND INFORMATION ON INGREDIENTS**Ingredients Names and Proportions**

Chemical Entity	CAS Number	Proportion (%)
Unsaturated polyester resin (non-hazardous)	-	30 – 60
Styrene	100-42-5	30 – 60

SECTION 4 FIRST AID MEASURES

Description of necessary first aid measures

Inhalation:	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.
Skin Contact:	If skin contact occurs, remove contaminated clothing, wipe resin off skin. Wash skin thoroughly with soap and water. Wash clothing before reuse.
Eye Contact:	If in eyes, hold eyes open, flood with water for at least 15 minutes. Seek immediate medical assistance.
Ingestion:	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.

Symptoms caused by exposure

Inhalation:	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.
Skin:	May cause irritation and discomfort, redness and swelling. Prolonged contact may cause severe irritation and discomfort. Repeated skin contact may cause irritant contact dermatitis (itching, drying, redness).
Eye:	May cause irritation, discomfort and pain. Produces redness, possible swelling of the eye and possible injury to the cornea.
Ingestion:	Styrene may cause irritation to the mouth and throat, with abdominal discomfort, nausea and vomiting.

Medical attention and special treatment

Treat symptomatically.

SECTION 5 FIRE FIGHTING MEASURES

Suitable extinguishing equipment

Use water fog or spray, foam, dry agent.

Specific hazards arising from the chemical

Flammable liquid. Heating can cause expansion or decomposition leading to violent rupture of containers. May polymerise violently at elevated temperatures. In a fire situation, carbon monoxide and/or carbon dioxide may be evolved. Styrene produces acrid smoke. 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.

Special protective equipment and precautions for fire fighters

Wear full protective clothing and self-contained breathing apparatus. Hazchem code ●3Y.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Avoid contact with spilled or released material. Increase ventilation. Shut off leaks, if possible without personal risks. Isolate hazard area and deny entry to unnecessary or unprotected personnel. Remove all sources of ignition in the surrounding area. Take precautionary measure against static discharge. Ensure electrical continuity by bonding and earthing all equipment.

Environmental precautions

Use appropriate containment to avoid environmental contamination. Prevent from spreading and entering waterway using sand, earth or other appropriate barriers. Attempt to disperse the vapour or to direct its flow to a safe location for example by using fog sprays. Ventilate contaminated area thoroughly.

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Methods and materials for containment and cleaning up

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 any residues to evaporate or use an appropriate absorbent material and dispose of safely.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Flammable product. Keep exposure to this product to a minimum. Handle and open containers with care in a well-ventilated area. Ensure that the workplace is ventilated such that the Occupational Exposure limit is not exceeded. Avoid breathing material. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Do not eat, drink or smoke in contaminated areas. Electrostatic charges may be generated during transfer. Electrostatic discharge may cause fire. Ensure electrical continuity by earthing all equipment.

Conditions for safe storage, including any incompatibilities

Bulk storage tanks should be banded. Store in a well-ventilated area, away from sunlight, ignition sources and other sources of heat. Do not store near strong oxidants.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure control measures

From National Occupational Health & Safety Commission (NOHSC) Worksafe Australia -
Styrene: 213mg/m³ (50ppm) TWA (8hr), 426mg/m³ (100ppm) STEL

Biological monitoring

No biological limit allocated.

Engineering controls

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

Individual protection measures

Eye and face protection:	Eyes should be completely protected with splash resistant goggles with face shield. All surrounding skin should be covered.
Skin protection:	Use solvent resistant gloves (nitrile, neoprene, butyl rubber or Teflon). Use chemical resistant boots and apron. Ensure that all skin areas are completely covered using impermeable gloves, overalls, hair covering and face shield.
Respiratory protection:	If work practices do not maintain airborne level below the exposure standard, use appropriate respiratory protection equipment. When using respirators, select an appropriate combination of mask and filter. Select a filter for organic gases and vapours (boiling point > 65°C). Respirators should comply with AS1716 or an equivalent approved by a state/territory authority.
Thermal hazards:	Not applicable.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear to opaque, viscous liquid
Odour:	Sweet or sharp aromatic
Odour threshold (ppm):	Data not available
pH:	Data not available
Melting point/freezing point (°C):	Data not available
Initial boiling point and boiling range (°C):	145 approx.
Flash point (°C):	31 (closed cup)
Evaporation rate (Butyl acetate = 1):	Data not available
Flammability:	Flammable
Upper/lower flammability or explosive limits (%):	1.1 - 6.1
Vapour pressure (kPa):	Data not available
Vapour density (air = 1 @ 15°C):	> 1
Density (g/ml @ 15°C):	0.9 – 1.1
Solubility (kg/m ³):	Insoluble
Partition coefficient: n-octanol/water:	Data not available
Auto-ignition temperature (°C):	490 (Styrene)
Decomposition temperature (°C):	Data not available
Kinematic viscosity (mm ² /s @ 20°C):	Data not available

SECTION 10 STABILITY AND REACTIVITY

Reactivity

Stable under normal conditions of use.

Chemical stability

Stable under normal conditions of use.

Possibility of hazardous reactions

Stable under normal conditions of use.

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 the styrene monomer.

Hazardous decomposition products

Burning can produce carbon monoxide, carbon dioxide, styrene, methyl methacrylate and acrid smoke.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute toxicity:	Inhalation may cause irritation to the upper respiratory tract and central nervous system effects. May result in the absorption of potentially harmful amounts of material. Swallowing may cause irritation to the mouth and throat
Skin corrosion/irritation:	May cause irritation. Repeated skin contact may cause irritant contact dermatitis
Serious eye damage/irritation:	May cause irritation
Respiratory or skin sensitisation:	Not expected to be a sensitiser
Germ cell mutagenicity:	Not expected to be mutagenic
Carcinogenicity:	Styrene is classified by the international Agency for Research of Cancer (I.A.R.C.) under Group 2B i.e. possibly carcinogenic to humans (sufficient evidence in animals, inadequate data in humans)
Reproductive toxicity:	Not expected to impair fertility
Specific Target Organ Toxicity (STOT) – single exposure:	Data not available
Specific Target Organ Toxicity (STOT) – repeated exposure:	Data not available
Aspiration hazard:	Data not available

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity

Acute toxicity:

Fish –	Moderately toxic: LC50 (96hr) 10mg/litre (Fathead minnow)
Aquatic invertebrate –	Moderately toxic: EC50 (48hr) 4.7mg/litre (Daphnia magna)
Algae –	Highly toxic: EC50 (96hr) 0.72mg/litre (Green algae)
Microorganisms –	Data not available

Chronic toxicity:

Fish –	Data not available
Aquatic invertebrate –	Data not available
Algae –	Data not available
Microorganisms –	Data not available

Persistence and degradability

Styrene is not expected to persist in the environment.

Bioaccumulative potential

Data not available.

Mobility in soil

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

Other adverse effects

Data not available.

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SECTION 13 DISPOSAL CONSIDERATIONS

Ensure waste disposal conforms to local waste disposal regulations.

SECTION 14 TRANSPORT INFORMATION

UN number:	1866
Proper shipping name:	Resin solution, flammable
Australian Dangerous Goods class:	3
Australian Dangerous Goods packing group:	III
Hazchem code:	●3Y

SECTION 15 REGULATORY INFORMATION

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP), Poisons Schedule:	5
Australian Inventory of Chemical Substances (AICS):	Listed
Dangerous Goods Initial Emergency Response Guide (SAA/SNZ HB76):	14

SECTION 16 OTHER INFORMATION

Date of preparation:	08/12/2015
Revision number:	5
Changes in this revision:	Update to GHS SDS standard

This SDS summarises product safety information at the date of issue, to the best of our knowledge, as a general guide. Recochem cannot anticipate or control the conditions under which the product is used, so prior to usage each user must assess and control the risks associated with their use of the product. Users should also consult the relevant legislation governing the use and storage of this product. We make no warranties, express or implied, and assume no liability in connection with any use of information contained within this document. If clarification or further information is needed, the user should contact Recochem on (07) 3308 5200.
