

## SAFETY DATA SHEET

<b>Section 2.</b>	<b>Hazards Identification</b>
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**Australia:**

Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia

**New Zealand:**

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

**EPA Approval No: Surface Coatings and Colourants (Flammable, Toxic [6.7]) - HSR002669**

**Pictograms**



Flammable   Toxic/Irritant   Chronic   Ecotoxic

Signal Word: **DANGER**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
3.1C	H226	Flammable liquid and vapour.	Flam. Liq. 3
6.1D (oral)	H302	Harmful if swallowed.	Acute Tox. 4
6.3A	H315	Causes skin irritation.	Skin Irrit. 2
6.4A	H319	Causes serious eye irritation.	Eye Irrit. 2A
6.6B	H341	Suspected of causing genetic defects.	Muta. 2
6.7B	H351	Suspected of causing cancer.	Carc. 2
6.8B	H361	Suspected of damaging fertility or the unborn child.	Repr. 2
6.9A	H372	Causes damage to organs through prolonged or repeated exposure.	STOT RE 1
9.1A	H400	Very toxic to aquatic life.	Aquatic Acute 1
9.3B	H432	Toxic to terrestrial vertebrates.	



<b>Prevention Code</b>	<b>Prevention Statement</b>
P102	Keep out of reach of children.
P103	Read label before use.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, sparks, open flames or hot surfaces. No smoking.
P233	Keep container tightly closed.
P240	Ground, bond container and receiving equipment.
P241	Use explosion-proof electrical, ventilating and lighting.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe fumes, vapours or spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective clothing.
P281	Use personal protective equipment as required.

<b>Response Code</b>	<b>Response Statement</b>
P101	If medical advice is needed, have product container or label at hand.
P314	Get medical advice/attention if you feel unwell.
P330	Rinse mouth.
P362	Take off contaminated clothing and wash before re-use.
P391	Collect spillage.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P303 + P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P332 + P313	If skin irritation occurs: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P370 + P378	In case of fire: Use alcohol resistant foam, or if unavailable, dry chemical or foam for extinction.



Storage Code	Storage Statement
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

Section 3. Composition / Information on Ingredients		
Ingredients	Wt%	CAS NUMBER.
Unsaturated polyester resin (non-stabilised)	50-75	Proprietary
Styrene	25-50	100-42-5

**Section 4. First Aid Measures**

Routes of Exposure:

- If in Eyes                      Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice.
- If on Skin                        Wash with plenty of soap and water. Take off contaminated clothing and wash before re-use. If skin irritation occurs: get medical advice/attention.
- If Swallowed                    Rinse mouth. DO NOT induce vomiting. Give a glass of water. Never give anything to the mouth of an unconscious person. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs. Call a POISON CENTER or doctor/physician if you feel unwell.
- If Inhaled                        Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Get medical advice if breathing becomes difficult.

**Most important symptoms and effects, both acute and delayed**

Symptoms:

- Ingestion:** Harmful if swallowed.
- Inhalation:** Irritating to the respiratory tract. Exposure to large concentrations over an extended period of time will result in muscle weakness, tingling in hands and feet, blurred vision, headaches, nausea, loss of appetite, hallucinations, and possible loss of consciousness.
- Skin:** This product is irritating to the skin and defatting and drying will occur on exposure to product vapours.
- Eye:** Causes serious eye irritation. Contact with eyes risks overexposure to the product. Vapour may be irritating to eyes and eye tissue.
- Chronic:** Suspected of causing genetic defects.  
Suspected of causing cancer.  
Suspected of damaging fertility or the unborn child.  
Causes damage to organs through prolonged or repeated exposure.  
Elements of this product have been known to cause damage to the central nervous system, hearing impairment, and respiratory tract damage with frequent and prolonged exposure.

Advice for Doctors      Treat according to symptoms. Avoid gastric lavage: risk of aspiration of product to the lungs with the potential to cause chemical pneumonitis.



**Section 5. Fire Fighting Measures**

<b>Hazard Type</b>	Flammable
<b>Hazards from combustion products</b>	Carbon dioxide and carbon monoxide
<b>Suitable Extinguishing media</b>	Alcohol resistant foam, or if unavailable, dry chemical or foam
<b>Precautions for firefighters and special protective clothing</b>	Full protective clothing and self-contained breathing apparatus. Shut off product that may 'fuel' a fire if safe to do so. Allow trained personnel to attend a fire in progress, providing firefighters with this Safety Data Sheet. Prevent extinguishing media from escaping to drains and waterways.
<b>HAZCHEM CODE</b>	<b>3Y</b>

**Section 6. Accidental Release Measures**

**Personal precautions:**

Wear protective equipment as detailed in Section 8. Clear area of any unprotected personnel.

**Environmental precautions:**

Prevent fluid from escaping to drains and waterways. Contain leaking packaging in a containment drum. Prevent vapours from building up in confined areas. Ensure that drain valves are closed at all times.

**Spill and Disposal procedures:**

Contain the spilled liquid with sand or earth. Recover by pumping – use explosion proof pump or hand pump – or with a suitable absorbent material. Dispose of according to Local Regulations.

**Section 7. Handling and Storage**

**Precautions for Handling:**

- Keep out of reach of children.
- Read label before use.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Keep away from heat, sparks, open flames or hot surfaces. No smoking.
- Keep container tightly closed.
- Ground, bond container and receiving equipment.
- Use explosion-proof electrical, ventilating and lighting.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- Open slowly to control possible pressure release.
- Do not breathe fumes, vapours or spray.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Avoid release to the environment.
- Wear protective clothing.
- Use personal protective equipment as required.



**Precautions for Storage:**

- Store away from incompatible materials listed in Section 10.
- Store locked up.
- Store in a cool, dry place away from direct sunlight.
- Do not pressurize, cut, heat or weld containers - residual vapours are flammable.
- This product is flammable and will fuel a fire in progress.

**Section 8 Exposure Controls / Personal Protection**

**WORKPLACE EXPOSURE STANDARDS (provided for guidance only)**

The time weighted average concentration (TWA) for this product is: 213 mg/m<sup>3</sup> (50pp), which means the highest allowable exposure concentration in an eight-hour day for a five-day working week. The short-term exposure limit (STEL) is: 426 mg/m<sup>3</sup> (100ppm), which is the maximum allowable exposure concentration at any time.

Workplace Exposure Standard – Time Weighted Average (WES-TWA).The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices NOV 2017 9TH EDITION.

**Engineering Controls**

The use of local exhaust ventilation is recommended to control process emissions near the source. Laboratory samples should be handled in a fume hood. Provide mechanical ventilation of confined spaces. Use explosion-proof ventilation equipment.

**Personal Protection Equipment:**



<b>Eyes</b>	Wear safety goggles with side shields. Avoid wearing contact lenses.
<b>Hands and Skin</b>	Always wear long sleeves and long trousers or coveralls, and enclosed footwear or safety boots when handling this product. It is recommended that chemical resistant gloves (e.g. PVC) be worn when handling this product.
<b>Respiratory</b>	Where concentrations in air may exceed the limits described in the National Exposure Standards, it is recommended to use a half-face filter mask to protect from overexposure by inhalation. A type "A" filter material is considered suitable for this product.
<b>General</b>	Observe good standards of hygiene and cleanliness.



**Section 9 Physical and Chemical Properties**

<b>Appearance</b>	Blue, turbid liquid
<b>Odour</b>	Not available
<b>Odour Threshold</b>	Not available
<b>pH</b>	Not available
<b>Boiling Point</b>	>145°C
<b>Melting Point</b>	Not available
<b>Freezing Point</b>	Not available
<b>Flash Point</b>	31°C
<b>Flammability</b>	Not available
<b>Upper and Lower Exposure Limits</b>	1.0 – 6.1
<b>Volatile Component</b>	Not available
<b>Vapour Pressure</b>	Not available
<b>Density @ 15°C</b>	1.05 – 1.15
<b>Solubilities</b>	Partially miscible with water
<b>Partition Coefficient:</b>	Not available
<b>Auto-ignition Temperature</b>	490°C
<b>Decomposition Temperature</b>	Not available
<b>Viscosity @ 20°C</b>	500-600 cST
<b>Particle Characteristics</b>	Not available
<b>Percent Volatiles</b>	>30%

**Section 10. Stability and Reactivity**

<b>Stability of Substance</b>	This product is stable under normal conditions.
<b>Conditions to Avoid</b>	Sources of heat and ignition, open flames.
<b>Incompatible Materials/Hazardous Reactions</b>	Oxidizing agents, mineral acids, halogenated organic compounds, peroxides and metal salts
<b>Hazardous Decomposition Products</b>	Carbon monoxide, carbon dioxide and other organic complexes on incomplete burning or oxidation.

**Section 11 Toxicological Information**
**Acute Effects:**

<b>Swallowed</b>	Harmful if swallowed.
<b>Dermal</b>	Not applicable.
<b>Inhalation</b>	Irritating to the respiratory tract. Exposure to large concentrations over an extended period of time will result in muscle weakness, tingling in hands and feet, blurred vision, headaches, nausea, loss of appetite, hallucinations, and possible loss of consciousness.
<b>Eye</b>	Causes severe irritation to the eyes. Contact with eyes risks overexposure to the product. Vapour may be irritating to eyes and eye tissue.
<b>Skin</b>	This product is irritating to the skin and defatting and drying will occur on exposure to product vapours.



**Chronic Effects:**

<b>Carcinogenicity</b>	Suspected of causing cancer.
<b>Reproductive Toxicity</b>	Suspected of damaging fertility or the unborn child.
<b>Germ Cell Mutagenicity</b>	Suspected of causing genetic defects.
<b>Aspiration</b>	Not applicable.
<b>STOT/SE</b>	Not applicable.
<b>STOT/RE</b>	Repeated or prolonged exposure to this product can result in acute effects being felt with greater frequency and severity. Effects of exposure may increase in intensity with subsequent use. Elements of this product have been known to cause damage to the central nervous system, hearing impairment, and respiratory tract damage with frequent and prolonged exposure.

**Individual component information:**
**Acute Toxicity:**

Chemical Name	Oral – LD50	Dermal – LD50	Inhalation – LC50
Styrene (100-42-5)	316 mg/kg (mouse)	-	6.8mg/l (mouse – vapour)

**Section 12. Ecotoxicological Information**
**New Zealand:**

HSNO Classes: 9.1A = Very toxic to aquatic life.  
9.3B = Toxic to terrestrial vertebrates.

**Aquatic Toxicity**

Fish Toxicity (rainbow trout, goldfish, bluegill): LC50(96hr): Styrene (Sheepshead minnow):  
9100 µg/L

Daphnia Magna EC50 (24 hr): Styrene: 4700 µg/L

Blue-green algae (Toxicity threshold 7-8 days): Styrene: 67000 µg/L

Green algae (Toxicity threshold 7-8 days): Styrene: EC50: 560 µg/L

<b>Persistence and degradability</b>	This product is not considered to comply with international biodegradability criteria.
<b>Bioaccumulation</b>	No data available
<b>Mobility in Soil</b>	if product enters soil, it will be highly mobile and may contaminate groundwater.
<b>Other adverse effects</b>	No data available

Do not allow to enter waterways.



**Section 13. Disposal Considerations**

**Disposal Method:** Place recovered product into an appropriate waste container for disposal through appropriate waste company or specialized landfill in accordance with local regulations. Ensure container is sealed and isolated away from ignition sources.

**Precautions:** Ensure waste container containing recovered product or contaminated spill media is labelled "Hazardous Waste – Flammable, Ecotoxic". If triple rinsing container, add rinsate to waste container for disposal.

**Disposal methods to avoid:** Do not allow to enter waterways.

**Section 14 Transport Information**

**This product is classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code) (7th edition).**

**This product is classified as a Dangerous Good for transport in NZ ; NZS 5433:2012**

Road and Rail Transport

UN No: 1866  
 Class-primary 3  
 Packing Group III  
 Proper Shipping Name: RESIN SOLUTION, Flammable

Air Transport

UN No: 1866  
 Class-primary 3  
 Packing Group III  
 Proper Shipping Name: RESIN SOLUTION, Flammable

Marine Transport

UN No: 1866  
 Class-primary 3  
 Packing Group III  
 Proper Shipping Name: RESIN SOLUTION, Flammable  
 Marine Pollutant: Yes

**Limited Quantities Statement:**

If the product's individual container is below 5L/kg, it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG.





**Section 15 Regulatory Information**

**Australia:**

Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classified as a **Schedule 5** Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

**New Zealand**

This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2017.

EPA Approval Code: Surface Coating and Colourant (Flammable, Toxic [6.7]) – HSR002669

HSNO Classification: 3.1C, 6.1D(oral), 6.3A, 6.4A, 6.6B, 6.7B, 6.8B, 6.9A, 9.1A, 9.3B

<b>HSW (HS) Regulations 2017</b>	<b>Trigger Quantity</b>
Certified Handlers	Not required
Location Certificate	Not required
Signage Trigger Quantities (Schedule 3)	100Kg (9.1A)
Emergency Response Plan (Schedule 5)	100Kg (9.1A)
Secondary Containment (Schedule 5)	100Kg (9.1A)
Tracking (Schedule 26)	Not required
Restrictions of use	Only use for the intended purpose.
<b>Hazardous Property Controls Notice 2017</b>	
HPC Notice Part 4 Clause 47	Equipment for class 9 substances must be appropriate
HPC Notice Part 4 Clause 48	Records of application of class 9 pesticides and plant growth regulators
HPC Notice Part 4 Subpart A	Site and storage controls for class 9 substances
HPC Notice Part 4 Subpart C	Qualifications required for application of class 9 pesticides



**Section 16 Other Information**

**Glossary**

EC <sub>50</sub>	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC <sub>50</sub>	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD <sub>50</sub>	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

**References:**

**Australia:**

1. Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.
2. National Industrial Chemicals Notification and Assessment Scheme (NICNAS).
3. Standard for the Uniform Scheduling of Medicines and Poisons.
4. Australian Code for the Transport of Dangerous Goods by Road & Rail.
5. Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.
6. Workplace exposure standards for airborne contaminants, Safe work Australia.
7. American Conference of Industrial Hygienists (ACGIH).
8. Globally Harmonised System of Classification and Labelling of chemicals.

**New Zealand:**

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

