# SAFETY DATA SHEET

## Section 1. Identification of the material and the supplier

| | |
|---|---|
| Product: | **Polyester Resin** |
| Item Code: | 9001 |
| Product Use: | Coating Intermediate |
| Restriction of Use: | Refer to Section 15 |
| | |
| Australian Supplier: | **Norglass Paints** |
| Address: | 59 Moxon Road<br>Punchbowl NSW 2196<br>Australia |
| Telephone: | +61 2 9708 2200 |
| Email: | techinfo@norglass.com.au |
| | |
| New Zealand Supplier: | xxx |
| Address: | xxx<br>xxx |
| Telephone: | 0508 724687 |
| | |
| **Emergency Numbers:** | |
| **Australia:** | **13 1126 (Poisons Information Centre)** |
| **New Zealand:** | **0800 764 766 (National Poison Centre)** |
| | |
| Date of SDS Preparation: | 10 December 2023 v3 |

## Section 2. Hazards Identification

**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 2020

**EPA Approval No: Surface Coatings and Colourants (Flammable, Carcinogenic) - HSR002669**

**Pictograms**

Signal Word: **DANGER**

| GHS Classification and Category | Hazard Code | Hazard Statement |
|---|---|---|
| Flammable Liquids Cat. 3 | H226 | Flammable liquid and vapour. |
| Acute oral toxicity Cat. 4 | H302 | Harmful if swallowed. |
| Skin irritation Cat. 2 | H315 | Causes skin irritation. |

| | | |
|---|---|---|
| Eye irritation Cat. 2 | H319 | Causes serious eye irritation. |
| Germ cell mutagenicity Cat. 2 | H341 | Suspected of causing genetic defects. |
| Carcinogenicity Cat. 2 | H351 | Suspected of causing cancer. |
| Reproductive toxicity Cat. 2 | H361 | Suspected of damaging fertility or the unborn child. |
| Specific target organ toxicity – repeated exposure Cat. 1 | H372 | Causes damage to organs through prolonged or repeated exposure. |
| Hazardous to the aquatic environment acute Cat. 1 | H400 | Very toxic to aquatic life. |

| **Prevention Code** | **Prevention Statement** |
|---|---|
| P102 | Keep out of reach of children. |
| P103 | Read carefully and follow all instructions. |
| 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 action to prevent 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. |

| **Response Code** | **Response Statement** |
|---|---|
| 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 + P364 | 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.<br>Suspected of causing cancer.<br>Suspected of damaging fertility or the unborn child.<br>Causes damage to organs through prolonged or repeated exposure.<br>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

| | |
|---|---|
| **Hazard Type** | Flammable |
| **Hazards from combustion products** | Carbon dioxide and carbon monoxide |
| **Suitable Extinguishing media** | Alcohol resistant foam, or if unavailable, dry chemical or foam |
| **Precautions for firefighters and special protective clothing** | 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. |
| **HAZCHEM CODE** | **3Y** |

## 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/m3 (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/m3 (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 APRIL 2022 13TH 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**:

| | |
|---|---|
| **Eyes** | Wear safety goggles with side shields. Avoid wearing contact lenses. |
| **Hands and Skin** | 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. |
| **Respiratory** | 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. |
| **General** | Observe good standards of hygiene and cleanliness. |

## Section 9 Physical and Chemical Properties

| | |
|---|---|
| **Appearance** | Blue, turbid liquid |
| **Odour** | Not available |
| **Odour Threshold** | Not available |
| **pH** | Not available |
| **Boiling Point** | >145$^0$C |
| **Melting Point** | Not available |
| **Freezing Point** | Not available |
| **Flash Point** | 31$^0$C |
| **Flammability** | Not available |
| **Upper and Lower Exposure Limits** | 1.0 – 6.1 |
| **Volatile Component** | Not available |
| **Vapour Pressure** | Not available |
| **Density @ 15$^0$C** | 1.05 – 1.15 |
| **Solubilities** | Partially miscible with water |
| **Partition Coefficient:** | Not available |
| **Auto-ignition Temperature** | 490$^0$C |
| **Decomposition Temperature** | Not available |
| **Viscosity @ 20$^0$C** | 500-600 cST |
| **Particle Characteristics** | Not available |
| **Percent Volatiles** | >30% |

## Section 10. Stability and Reactivity

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

## Section 11 Toxicological Information

**Acute Effects:**

| | |
|---|---|
| **Swallowed** | Harmful if swallowed. |

| | |
|---|---|
| **Dermal** | Not applicable. |
| **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. |
| **Eye** | Causes severe irritation to the eyes. Contact with eyes risks overexposure to the product. Vapour may be irritating to eyes and eye tissue. |
| **Skin** | This product is irritating to the skin and defatting and drying will occur on exposure to product vapours. |

**Chronic Effects:**

| | |
|---|---|
| **Carcinogenicity** | Suspected of causing cancer. |
| **Reproductive Toxicity** | Suspected of damaging fertility or the unborn child. |
| **Germ Cell Mutagenicity** | Suspected of causing genetic defects. |
| **Aspiration** | Not applicable. |
| **STOT/SE** | Not applicable. |
| **STOT/RE** | 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

Very toxic to aquatic life.

**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

| | |
|---|---|
| **Persistence and degradability** | This product is not considered to comply with international biodegradability criteria. |
| **Bioaccumulation** | No data available |
| **Mobility in Soil** | if product enters soil, it will be highly mobile and may contaminate groundwater. |
| **Other adverse effects** | 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, Rail, Sea and Air Transport**

| | |
|---|---|
| **UN No** | 1866 |
| **Class - Primary** | 3 |
| **Packing Group** | III |
| **Proper Shipping Name** | RESIN SOLUTION, Flammable |
| **Marine Pollutant** | YES |
| **Special Provisions** | 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. Special Provision: 233 |

## 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 2020

EPA Approval Code: Surface Coating and Colourant (Flammable, Carcinogenic) – HSR002669

| HSW (HS) Regulations 2017 | Trigger Quantity |
|---|---|
| Certified Handlers | Not required |
| Location Certificate | Not required |
| Signage Trigger Quantities (Schedule 3) | 100Kg |
| Emergency Response Plan (Schedule 5) | 100Kg |
| Secondary Containment (Schedule 5) | 100Kg |
| Tracking (Schedule 26) | Not required |
| Restrictions of use | Only use for the intended purpose. |

## Section 16 Other Information

**Glossary**

| | |
|---|---|
| $EC_{50}$ | Median effective concentration. |
| EEL | Environmental Exposure Limit. |
| EPA | Environmental Protection Authority |
| HSNO | Hazardous Substances and New Organisms. |
| HSW | Health and Safety at Work. |

| | |
|---|---|
| $LC_{50}$ | Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it. |
| $LD_{50}$ | 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. Standard for the Uniform Scheduling of Medicines and Poisons.
3. Australian Code for the Transport of Dangerous Goods by Road & Rail.
4. Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.
5. Workplace exposure standards for airborne contaminants, Safe work Australia.
6. American Conference of Industrial Hygienists (ACGIH).
7. 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 APRIL 2022 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2020
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer
This document has been prepared by TCC (NZ) Ltd and serves as the suppliers Safety Data Sheet ('SDS'). It is based on information concerning the product which has been provided to TCC (NZ) Ltd or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer. While TCC (NZ) have taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, TCC (NZ) Ltd accept no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS

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Please contact the Australian Manufacturer or New Zealand distributor, if further information is required.

Issue Date: 10 December 2023 Review Date: 10 December 2028