SECTION 1: Identification Of The Substance And Supplier

Product Name: Epoxy Bind
Other Name: Epoxy Resin
Recommended Use: Product is designed for use in the manufacture of polymer modified asphalt. The addition of these products significantly increase the performance of Asphalt Mixes.
Company Details: Road Science
Address: 9 Owens Place, Mt Maunganui
Telephone Number: 07 575 1150
Emergency Telephone Number: 07 575 1150 24hr / 7 days or National Poisons Centre 0800 POISON (0800 764 766)

SECTION 2: Hazards Identification

Hazard Classification: DG classes: 6.1D (Oral, Dermal, Inhalation), 6.4A, 6.5B, 9.1B

SECTION 3: Composition/Information On Ingredients

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Concentration</th>
<th>Cas Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol A/ epichlorohydrin resin</td>
<td>70 – 90%</td>
<td>25085-99-8</td>
</tr>
<tr>
<td>Benzyl alcohol</td>
<td>10 – 25%</td>
<td>100-51-6</td>
</tr>
</tbody>
</table>

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non-hazardous ingredients are also possible.
SECTION 4: First Aid Measures

If poisoning occurs, contact a doctor or Poisons Information Centre Phone 0800 764 766.

FIRST AID INSTRUCTIONS:

Swallowed: If swallowed, do not induce vomiting. Seek immediate medical assistance. Begin artificial respiration if breathing has stopped. Use mouth to nose rather than mouth to mouth.

Eyes: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment.

Inhaled: Remove victim from area of exposure. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If patient finds breathing difficult and develops a bluish discolouration of the skin (which suggests a lack of oxygen in the blood - cyanosis), ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Apply artificial respiration if patient is not breathing. Get to a hospital or doctor quickly.

Skin Contact: If skin contact occurs, immediately remove contaminated clothing and wash skin thoroughly using soap if available. If irritation occurs seek medical advice.

Notes to physician: Treat symptomatically. If skin sensitization has developed and causal relationship has been confirmed, further exposure should not be allowed.

SECTION 5: Fire-Fighting Measures

Hazards from combustion: Not classified as flammable but will burn. On burning may emit toxic fumes, including those of hydrogen chloride and oxides of carbon.

Fire-fighting advice: Fire fighters to wear self-contained breathing apparatus and suitable protective clothing. Keep adjacent containers cool by spraying with water

Suitable Extinguishing Media: Use dry chemical powder. alcohol foam, water spray or fog.

SECTION 6: Accidental Release Measures

Emergency procedures: If contamination of sewers or waterways has occurred advise local emergency services.

Methods for containment & clean up: Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin & eye contact. Wipe up with rag or absorbent paper

For large spills: Wear protective equipment to prevent skin and eye contamination and inhalation of vapours. Contain - prevent runoff into drains and waterways. Use absorbent material (sand or earth). Collect and seal in properly labelled containers for disposal.

SECTION 7: Handling and Storage

Handling advice: Do not ingest. Do not breathe gas/fumes/ vapour/ spray. Never add water to this product Wear suitable protective clothing In case of insufficient ventilation, wear suitable respiratory equipment If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes

Storage advice: Store below 60°C

SECTION 8: Exposure Controls/Personal Protection

Occupational Exposure Limits: Not available

Engineering Control Measures: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protective Equipment: Be sure to use an approved/certified respirator or equivalent.
SECTION 9: Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Viscous liquid</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Slightly soluble</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.10 – 1.20</td>
</tr>
<tr>
<td>Flash Point (°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability Limits (%)</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling Point/Range (°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Colour</td>
<td>Water white</td>
</tr>
</tbody>
</table>

SECTION 10: Stability and Reactivity

- **Stability:** The product is stable.
- **Incompatible materials:** Reactive with acids, alkalis.
- **Conditions to avoid:** Not available

SECTION 11: Toxicological Information

- **Ingestion:** Moderately toxic.
- **Eye contact:** Slightly irritating to eyes.
- **Skin contact:** Slightly irritating to skin. Has caused allergic skin reaction in humans.
- **Inhalation:** Moderately toxic. Vapour is irritating to the nose, throat and lungs.
- **Long Term Effects:** Prolonged or repeated exposure may cause skin sensitization.
- **Toxicological Data:** No LD50 data available for the product. However, for constituent Bisphenol A/epichlorhydrin:
  - Oral LD50 (rat) >5000 mg/kg, Dermal LD50 (rabbit) >20000 mg/kg
  - For ethylene glycol monobutyl ether:
    - Oral LD50 (guinea pig) 1414 mg/kg, Dermal LD50 (guinea pig) >2000 mg/kg, Inhalation LC50 (rat) 2.174/ltr

SECTION 12: Ecotoxicity Information

Avoid contaminating waterways. Not readily biodegradable. Has the potential to bio-accumulate. If product enters soil, it will be mobile and may contaminate groundwater.

**Acute toxicity – fish:** Toxic, 1>LC/EC/IC 50 <= 10 mg/l

SECTION 13: Disposal Considerations

Refer to Waste Management Authority. Advise flammable nature. Dispose of material through a licensed waste contractor. Normally suitable for incineration by an approved agent.

- **Empty container:** Do not contaminate storm water with product or product washing. Do not pour product down the drain. Unwanted product should be brushed out on newspaper, allowed to dry and then disposed of via domestic waste collection. Empty containers should be left open in a well-ventilated area to dry out. When dry, recycle the container via recycling programmes. Disposal of empty paint containers via domestic recycling programmes may differ between local authorities. Check with your local council first.
### SECTION 14: Transport Information

<table>
<thead>
<tr>
<th>Mode of Transport</th>
<th>Classification</th>
<th>UNNo.</th>
<th>Class</th>
<th>Proper Shipping Method</th>
<th>Hazchem Code</th>
<th>Packing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road and Rail Transport</td>
<td>Classified as Dangerous Goods by NZS 5433:1999 Transport of Dangerous Goods on Land</td>
<td>3082</td>
<td>9</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, NOS (EPOXY RESIN)</td>
<td>2X</td>
<td>III</td>
</tr>
<tr>
<td>Marine Transport</td>
<td>Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.</td>
<td>3082</td>
<td>9</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, NOS (EPOXY RESIN)</td>
<td>2X</td>
<td>III</td>
</tr>
<tr>
<td>Air Transport</td>
<td>Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.</td>
<td>3082</td>
<td>9</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, NOS (EPOXY RESIN)</td>
<td>2X</td>
<td>III</td>
</tr>
</tbody>
</table>

### SECTION 15: Regulatory Information

- DG classes: 6.1D (Oral, Dermal, Inhalation), 6.4A, 6.5B, 9.1B
- Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2006. The HSNO Approval Number for this Group Standard is HSR002670

### SECTION 16: Other Information

- Revision Indicator: Issued: 12 June 2019