SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: VPI#190 CONTACT ADHESIVE

Intended Use of the Product

Use of the Substance/Mixture: No use is specified.

Name, Address, and Telephone of the Responsible Party

Company
VPI Corporation
3123 S. 9th Street
Sheboygan, WI 53082-0451
920-451-5848

Emergency Telephone Number

Emergency Number : 800-424-9300 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)
Aquatic Acute 2 H401
Aquatic Chronic 3 H412

Full text of H-phrases: see section 16

Label Elements

GHS-US Labeling
Hazard Statements (GHS-US) :
H401 - Toxic to aquatic life.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary Statements (GHS-US) :
P273 - Avoid release to the environment.

Other Hazards

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. If heated to the point of fume generation, zinc fumes may cause metal fume fever. Otherwise, zinc is non-toxic.

Unknown Acute Toxicity (GHS-US) Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>% (w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resin acids and rosin acids, esters with pentaerythritol</td>
<td>(CAS No) 8050-26-8</td>
<td>3 - 7</td>
</tr>
<tr>
<td>Resin acids and Rosin acids, sodium salts</td>
<td>(CAS No) 61790-51-0</td>
<td>3 - 7</td>
</tr>
<tr>
<td>Zinc oxide*</td>
<td>(CAS No) 1314-13-2</td>
<td>1 - 5</td>
</tr>
</tbody>
</table>

*This product contains a material that may be hazardous when present as an airborne dust. Since this product is in a liquid form, the material is not able to become airborne and cannot be inhaled. Thus, the hazards usually associated with this material are not applicable to this product.

SECTION 4: DESCRIPTION OF FIRST AID MEASURES

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).

Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.

Skin Contact: Remove contaminated clothing. Rinse affected area with water for at least 5 minutes. Wash contaminated clothing before reuse. Obtain medical attention if irritation persists.

Eye Contact: Rinse cautiously with water for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if redness, pain, or irritation occurs.
**Ingestion:** Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

**Most Important Symptoms and Effects Both Acute and Delayed**

**General:** None expected under normal conditions of use.

**Inhalation:** Prolonged exposure to liquid may cause a mild irritation.

**Skin Contact:** Prolonged exposure may cause skin irritation.

**Eye Contact:** Repeated or prolonged contact will cause mechanical irritation.

**Ingestion:** Ingestion is likely to be harmful or have adverse effects.

**Chronic Symptoms:** None expected under normal conditions of use.

**Indication of Any Immediate Medical Attention and Special Treatment Needed**

If you feel unwell, seek medical advice (show the label where possible).

**SECTION 5: FIRE-FIGHTING MEASURES**

**Extinguishing Media**

**Suitable Extinguishing Media:** Use extinguishing media appropriate for surrounding fire.

**Unsuitable Extinguishing Media:** Do not use a heavy water stream. Use of heavy stream of water may spread fire.

**Special Hazards Arising From the Substance or Mixture**

**Fire Hazard:** Not considered flammable but may burn at high temperatures.

**Explosion Hazard:** Product is not explosive.

**Reactivity:** Hazardous reactions will not occur under normal conditions.

**Advice for Firefighters**

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Hazardous Combustion Products:** Carbon oxides (CO, CO₂). Oxides of zinc.

**Reference to Other Sections**

Refer to section 9 for flammability properties.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Personal Precautions, Protective Equipment and Emergency Procedures**

**General Measures:** Avoid all contact with skin, eyes, or clothing. Avoid breathing (vapor, mist, spray).

**For Non-Emergency Personnel**

**Protective Equipment:** Use appropriate personal protection equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

**For Emergency Personnel**

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Stop leak if safe to do so. Ventilate area.

**Environmental Precautions**

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

**Methods and Material for Containment and Cleaning Up**

**For Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Spills should be contained with mechanical barriers. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

**Reference to Other Sections**

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

**SECTION 7: HANDLING AND STORAGE**

**Precautions for Safe Handling**

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

**Conditions for Safe Storage, Including Any Incompatibilities**

**Technical Measures:** Comply with applicable regulations.

**Storage Conditions:** Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

**Incompatible Materials:** Strong acids. Strong bases. Strong oxidizers.
Specific End Use(s)
No use is specified.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters
For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Zinc oxide (1314-13-2)

<table>
<thead>
<tr>
<th>Country</th>
<th>Standard</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA ACGIH</td>
<td>ACGIH TWA (mg/m³)</td>
<td>2 mg/m³ (respirable fraction)</td>
</tr>
<tr>
<td>USA ACGIH</td>
<td>ACGIH STEL (mg/m³)</td>
<td>10 mg/m³ (respirable fraction)</td>
</tr>
<tr>
<td>USA OSHA</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td>5 mg/m³ (fume)</td>
</tr>
<tr>
<td>USA OSHA</td>
<td></td>
<td>15 mg/m³ (total dust)</td>
</tr>
<tr>
<td>USA OSHA</td>
<td></td>
<td>5 mg/m³ (respirable fraction)</td>
</tr>
<tr>
<td>USA NIOSH</td>
<td>NIOSH REL (TWA) (mg/m³)</td>
<td>5 mg/m³ (dust and fume)</td>
</tr>
<tr>
<td>USA NIOSH</td>
<td>NIOSH REL (STEL) (mg/m³)</td>
<td>10 mg/m³ (fume)</td>
</tr>
<tr>
<td>USA NIOSH</td>
<td>NIOSH REL (ceiling) (mg/m³)</td>
<td>15 mg/m³ (dust)</td>
</tr>
<tr>
<td>USA IDLH</td>
<td>US IDLH (mg/m³)</td>
<td>500 mg/m³</td>
</tr>
<tr>
<td>Alberta</td>
<td>OEL STEL (mg/m³)</td>
<td>10 mg/m³ (respirable)</td>
</tr>
<tr>
<td>Alberta</td>
<td>OEL TWA (mg/m³)</td>
<td>2 mg/m³ (respirable)</td>
</tr>
<tr>
<td>British Columbia</td>
<td>OEL STEL (mg/m³)</td>
<td>10 mg/m³ (respirable)</td>
</tr>
<tr>
<td>British Columbia</td>
<td>OEL TWA (mg/m³)</td>
<td>2 mg/m³ (respirable)</td>
</tr>
<tr>
<td>Manitoba</td>
<td>OEL STEL (mg/m³)</td>
<td>10 mg/m³ (respirable fraction)</td>
</tr>
<tr>
<td>Manitoba</td>
<td>OEL TWA (mg/m³)</td>
<td>2 mg/m³ (respirable fraction)</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>OEL STEL (mg/m³)</td>
<td>10 mg/m³ (fume)</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>OEL TWA (mg/m³)</td>
<td>10 mg/m³ (particulate matter containing no Asbestos and &lt;1% Crystalline silica, dust) 5 mg/m³ (fume)</td>
</tr>
<tr>
<td>Newfoundland &amp; Labrador</td>
<td>OEL STEL (mg/m³)</td>
<td>10 mg/m³ (respirable fraction)</td>
</tr>
<tr>
<td>Newfoundland &amp; Labrador</td>
<td>OEL TWA (mg/m³)</td>
<td>2 mg/m³ (respirable fraction)</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>OEL STEL (mg/m³)</td>
<td>10 mg/m³ (respirable fraction)</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>OEL TWA (mg/m³)</td>
<td>2 mg/m³ (respirable fraction)</td>
</tr>
<tr>
<td>Nunavut</td>
<td>OEL STEL (mg/m³)</td>
<td>10 mg/m³ (fume)</td>
</tr>
<tr>
<td>Nunavut</td>
<td>OEL TWA (mg/m³)</td>
<td>5 mg/m³ (fume)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m³ (dust, respirable mass)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 mg/m³ (total mass-dust)</td>
</tr>
<tr>
<td>Northwest Territories</td>
<td>OEL STEL (mg/m³)</td>
<td>10 mg/m³ (fume)</td>
</tr>
<tr>
<td>Northwest Territories</td>
<td>OEL TWA (mg/m³)</td>
<td>5 mg/m³ (fume)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m³ (dust, respirable mass)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 mg/m³ (total mass-dust)</td>
</tr>
<tr>
<td>Ontario</td>
<td>OEL STEL (mg/m³)</td>
<td>10 mg/m³ (respirable)</td>
</tr>
<tr>
<td>Ontario</td>
<td>OEL TWA (mg/m³)</td>
<td>2 mg/m³ (respirable)</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>OEL STEL (mg/m³)</td>
<td>10 mg/m³ (respirable fraction)</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>OEL TWA (mg/m³)</td>
<td>2 mg/m³ (respirable fraction)</td>
</tr>
<tr>
<td>Québec</td>
<td>VEMP (mg/m³)</td>
<td>10 mg/m³ (containing no Asbestos and &lt;1% Crystalline silica-total dust) 5 mg/m³ (fume)</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>OEL STEL (mg/m³)</td>
<td>10 mg/m³ (dust and fume, respirable fraction)</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>OEL TWA (mg/m³)</td>
<td>2 mg/m³ (dust and fume, respirable fraction)</td>
</tr>
<tr>
<td>Yukon</td>
<td>OEL STEL (mg/m³)</td>
<td>10 mg/m³ (fume)</td>
</tr>
</tbody>
</table>
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Yukon OEL TWA (mg/m³)
5 mg/m³ (fume)
30 mppcf (dust)
10 mg/m³ (dust)

Exposure Controls
Appropriate Engineering Controls: Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed.


Materials for Protective Clothing: Chemically resistant materials and fabrics.
Hand Protection: Wear chemically resistant protective gloves.
Eye Protection: Chemical safety goggles.
Skin and Body Protection: Wear suitable protective clothing.
Respiratory Protection: Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

Environmental Exposure Controls: Do not allow the product to be released into the environment.
Consumer Exposure Controls: Do not eat, drink or smoke during use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES
Information on Basic Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White</td>
</tr>
<tr>
<td>Odor</td>
<td>Mild</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>11</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>1.0 [Ref Std: Water = 1.0]</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>Product may be irreversibly damaged below 5 °C (41 °F)</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>100 °C (212 °F) (aqueous phase)</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available</td>
</tr>
<tr>
<td>Lower Flammable Limit</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Upper Flammable Limit</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>17.5mm Hg @ 20 °C (68 °F)</td>
</tr>
<tr>
<td>Relative Vapor Density at 20 °C</td>
<td>Not available</td>
</tr>
<tr>
<td>Relative Density</td>
<td>1.09 g/mL</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.09</td>
</tr>
<tr>
<td>Solubility</td>
<td>Moderately soluble in water</td>
</tr>
<tr>
<td>Partition Coefficient: N-Octanol/Water</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>1,800 – 2,200 centipoise @ 25 °C (77 °F)</td>
</tr>
<tr>
<td>Solids Content</td>
<td>55 ± 2%</td>
</tr>
<tr>
<td>Explosion Data – Sensitivity to Mechanical Impact</td>
<td>Not expected to present an explosion hazard due to mechanical impact.</td>
</tr>
<tr>
<td>Explosion Data – Sensitivity to Static Discharge</td>
<td>Not expected to present an explosion hazard due to static discharge.</td>
</tr>
<tr>
<td>VOC Content (SCAQMD Rule 1168)</td>
<td>0 g/L (0 lbs/gal)</td>
</tr>
<tr>
<td>VHAP Content</td>
<td>0.0 lbs/lb solids</td>
</tr>
</tbody>
</table>
SECTION 10: STABILITY AND REACTIVITY

Reactivity: Hazardous reactions will not occur under normal conditions.

Chemical Stability: Stable under recommended handling and storage conditions (see section 7).

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Incompatible materials.


SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified

LD₅₀ and LC₅₀ Data: Not available

Skin Corrosion/Irritation: Not classified

pH: ≈ 11

Serious Eye Damage/Irritation: Not classified

pH: ≈ 11

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not classified

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Prolonged exposure to liquid may cause a mild irritation.

Symptoms/Injuries After Skin Contact: Prolonged exposure may cause skin irritation.

Symptoms/Injuries After Eye Contact: Repeated or prolonged contact will cause mechanical irritation.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: None expected under normal conditions of use.

Information on Toxicological Effects - Ingredient(s)

LD₅₀ and LC₅₀ Data:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>LD₅₀ Oral Rat</th>
<th>LC₅₀ Fish 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resin acids and Rosin acids, sodium salts (61790-51-0)</td>
<td>&gt; 2000 mg/kg</td>
<td>5.0 - 10.0 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])</td>
</tr>
<tr>
<td>Zinc oxide (1314-13-2)</td>
<td>&gt; 5000 mg/kg</td>
<td>780 μg/l (Exposure time: 96 h - Species: Pimephales promelas)</td>
</tr>
<tr>
<td>LD₅₀ Dermal Rat</td>
<td>&gt; 2000 mg/kg</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecology - General: Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>EC₅₀ Daphnia 1</th>
<th>EC₅₀ Daphnia 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resin acids and Rosin acids, sodium salts (61790-51-0)</td>
<td>76 mg/l (Exposure time: 48 h - Species: Daphnia magna)</td>
<td>0.122 mg/l</td>
</tr>
<tr>
<td>Zinc oxide (1314-13-2)</td>
<td></td>
<td>0.026 mg/l (Species: Jordanella floridae)</td>
</tr>
</tbody>
</table>

Persistence and Degradability: Not available

Bioaccumulative Potential

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resin acids and Rosin acids, sodium salts (61790-51-0)</td>
<td>&gt; 3</td>
</tr>
</tbody>
</table>


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**Mobility in Soil** Not available

**Other Adverse Effects**

Other Information: Avoid release to the environment.

---

**SECTION 13: DISPOSAL CONSIDERATIONS**

**Waste Disposal Recommendations:** Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

**Ecology – Waste Materials:** Avoid release to the environment.

---

**SECTION 14: TRANSPORT INFORMATION**

**In Accordance with DOT** Not regulated for transport

**In Accordance with IMDG** Not regulated for transport

**In Accordance with IATA** Not regulated for transport

**In Accordance with TDG** Not regulated for transport

---

**SECTION 15: REGULATORY INFORMATION**

**US Federal Regulations**

- Resin acids and Rosin acids, sodium salts (61790-51-0)
  
  Listed on the United States TSCA (Toxic Substances Control Act) inventory

- Resin acids and rosin acids, esters with pentaerythritol (8050-26-8)
  
  Listed on the United States TSCA (Toxic Substances Control Act) inventory

- Zinc oxide (1314-13-2)
  
  Listed on the United States TSCA (Toxic Substances Control Act) inventory

**US State Regulations**

- Zinc oxide (1314-13-2)
  
  U.S. - Massachusetts - Right To Know List

  U.S. - New Jersey - Right to Know Hazardous Substance List

  U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

  U.S. - Pennsylvania - RTK (Right to Know) List

**Canadian Regulations**

- WHMIS Classification
  
  Uncontrolled product according to WHMIS classification criteria

- Resin acids and Rosin acids, sodium salts (61790-51-0)
  
  Listed on the Canadian DSL (Domestic Substances List)

  WHMIS Classification
  
  Class D Division 2 Subdivision B - Toxic material causing other toxic effects

- Resin acids and rosin acids, esters with pentaerythritol (8050-26-8)
  
  Listed on the Canadian DSL (Domestic Substances List)

  WHMIS Classification
  
  Uncontrolled product according to WHMIS classification criteria

- Zinc oxide (1314-13-2)
  
  Listed on the Canadian DSL (Domestic Substances List)

  Listed on the Canadian IDL (Ingredient Disclosure List)

  IDL Concentration 1 %

  WHMIS Classification
  
  Uncontrolled product according to WHMIS classification criteria

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

---

**SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION**

**Revision Date** 05/01/2015

**Other Information** This document has been prepared in accordance with the SDS requirements of the OSHA

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<table>
<thead>
<tr>
<th>GHS Full Text Phrases:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>H401</td>
<td>Toxic to aquatic life</td>
</tr>
<tr>
<td>H412</td>
<td>Harmful to aquatic life with long lasting effects</td>
</tr>
</tbody>
</table>

Party Responsible for the Preparation of This Document
VPI Corporation
3123 S. 9th Street
Sheboygan, WI 53082-0451
920-451-5848

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS US 2012 & WHMIS 2