Subject: Adhesive MSDS

SECTION 1: IDENTIFICATION

1.1 Product Identifier

Product Name: PAL Polychloroprene Base Adhesive.
Product Code: Not Available.

1.2 Recommended Use of Chemical & Restrictions on Use

Recommended Use: PC1 Adhesives.

1.3 Details of the Manufacturer & Supplier of the SDS

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Tel: +971 4 889 1000
Email: info@palduct.us

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Potential Health Effects

Eye: Causes moderate eye irritation. Symptoms may include redness, swelling, pain, tearing and blurred or hazy vision.

Skin: Causes mild skin irritation. Symptoms may include localized redness, swelling and itching.

Inhalation: Symptoms may include cough, sneezing, nasal discharge, headache, and nose and throat pain.

Ingestion: May cause gastrointestinal irritation if ingested. May cause abdominal pain, diarrhea, nausea and vomiting.
SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Mixtures

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS No</th>
<th>Wt/ %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polychloroprene</td>
<td>9010-98-4</td>
<td>20 - 30</td>
</tr>
<tr>
<td>Resins</td>
<td>68648-57-7</td>
<td>10 - 20</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>&lt; 40</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>&lt; 5</td>
</tr>
</tbody>
</table>

*The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of § 1910.1200.*

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measure

Eye: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If signs / symptoms persist seek medical advice/attention.

Skin: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing difficult, give oxygen and keep at rest in a position comfortable for breathing. Get medical attention if condition worsens.

Ingestion: If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.

*The above first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.*

SECTION 5: FIRE FIGHTING MEASURES

5.1 Extinguishing Media

Suitable Media: Class B extinguishing agents. Powder, foam, carbon dioxide etc.

Unsuitable Media: Not available.

5.2 Special Hazards arising from the Chemical

Flammability

Boiling Point: 69.4°C.

Flash point: 30°C.
5.3 Special Protective Equipment & Precautions for Firefighters

**Special Fire Fighting Procedures:** Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Water may be used to blanket the fire. Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

**Unusual Fire and Explosion Hazards:** Closed containers exposed to heat from fire may build pressure and explode.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal Precautions, Protective Equipment & Emergency Procedures

**Personal Protection:** See section 8.

**Protective equipment:** Not available.

#### 6.2 Methods & Materials for Containment & Cleaning Up

**Method for Containment:** For larger spills, cover drains and build dikes to prevent entry into sewer systems or living organisms. Cover spill area with fire-extinguishing foam. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material.

**Methods for Cleaning-Up:** The spill should be cleaned up by qualified personnel. Remove all ignition sources such as flames, smoking materials, and electrical spark sources. Use only non-sparking tools. Ventilate the area with fresh air. For a large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors in accordance with good industrial hygiene practice. A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode.

Mix in sufficient absorbent until it appears dry. Adding an absorbent material does not remove any toxic, corrosivity or flammability hazard. Collect as much of the spilled material as possible using non-sparking tools. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and MSDS. Collect the resulting residue containing solution. Place in a metal container approved for transportation by appropriate authorities. Seal the container. Dispose of collected material as soon as possible.

### SECTION 7: HANDLING & STORAGE

#### 7.1 Precautions for Safe Handling & Conditions for Safe Storage

**Handling:** Keep out of the reach of children. Avoid eye contact with vapors, mists, or spray. Avoid skin contact. Avoid breathing of vapors, mists or spray. Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and
water. Avoid static discharge. Properly ground (earth) the containers securely when transferring contents. Wear low static or properly grounded shoes. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. Avoid contact with oxidizing agents.

**Storage:**
Keep container in well-ventilated area. Keep container tightly closed. Store out of direct sunlight, heat, and keep away from oxidizing agents, strong acids and bases. Store at temperatures below 35°C and above 10°C.

### SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

#### 8.1 Exposure Guidelines - Occupational Exposure Limits

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>ACGIH-TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene</td>
<td>50 ppm</td>
</tr>
</tbody>
</table>

#### 8.2 Exposure Controls

**Engineering Controls:** Use general dilution ventilation and / or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and / or control mist, vapor or spray. If ventilation is not adequate, use respiratory protection equipment. Provide appropriate local exhaust for cutting, grinding, sanding or machining.

#### 8.3 Individual Protection Measures - Personal Protective Equipment (PPE)

**Personal Protective Equipment:**

**Eye/Face Protection:** Avoid eye contact with vapors, mists, or spray. The following eye protection(s) are recommended: Safety Glasses with side shields; and Indirect Vented Goggles.

**Skin Protection:**

**Hand Protection:** Gloves made from the following material(s) are recommended: Polyvinyl Alcohol (PVA), Polyethylene / Ethylene Vinyl Alcohol.

**Body Protection:** Wear suitable protective clothing.

**Respiratory Protection:** Avoid breathing of vapors, mists or spray. Select one of the NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations. (e.g. Air-purifying respirator with organic vapor cartridges and N95 particulate pre-filters).

**General Health and Safety Measures:** Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking.

### SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

#### 9.1 Information on Basic Physical & Chemical Properties

**Appearance:** Not available.

**Color:** Pale Yellow-brown.

**Odor:** Aromatic.
Odor Threshold: Not available.

Physical State: Thick Flowing Liquid.

pH: Not available.

Melting Point/Freezing Point: Not available.

Initial Boiling Point and Boiling Range: 64.9 °C (148.8 °F).

Flash Point: 30 °C (86 °F).

Evaporation Rate: Not available.

Flammability: Not Available.

Solubility: Insoluble.

Explosive Properties: Not available.

SECTION 10: STABILITY & REACTIVITY

Stability: Stable.

Conditions to Avoid: Strong acids; Strong bases; Strong Oxidizing Agents.

Additional Information: Storage at elevated temperatures will shorten shelf life.

Hazardous Polymerization: Hazardous polymerization will not occur.

Decomposition Products: On decomposition oxides of carbon, hydrogen and organic oxides, chlorine may be generated.

SECTION 11: ECOLOGICAL INFORMATION

Ecotoxicity: May cause long-term adverse effects in the aquatic environment.

Persistence & Degradability: Not available.

Bioaccumulative Potential: Not available.

Mobility in Soil: Not available.

Other Adverse Effects: Not available.

SECTION 12: DISPOSAL CONSIDERATIONS

12.1 Waste Treatment Methods

Dispose of waste product in a permitted hazardous waste facility. Local regulation is applicable, consult regulation authorities before disposal.

SECTION 13: TRANSPORT INFORMATION

By Road / Rail: Class ADR / RID: Free.

By Sea / Air: IMCO Class 3, UN No. 1133. Packing Group 03. Flash Point: 30 °C. Boiling point: 64.9 °C.
SECTION 15: OTHER INFORMATION

Labeling: Highly Flammable.

Risk Phrases
R11: Highly flammable.
R36: Irritating to eyes and respiratory system.
R67: Repeated exposure may cause skin dryness or cracking.
R67: Vapors may cause drowsiness & dizziness.

Safety Phrases
S2: Keep out of reach of children.
S9: Keep container in a well-ventilated area.
S16: Keep away from sources of ignition – No smoking.
S23: Do not breathe vapors.
S25: Avoid contact with eyes.
S29: Do not empty into drains.
S46: If swallowed, seek medical advice immediately and show this container / label.
S51: Use only in a well-ventilated area.

General

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