MATERIAL SAFETY DATA SHEET

MANUFACTURER'S NAME
IPS Corporation
ADDRESS
17109 S. Main St., P.O. Box 379, Gardena, CA. 90248

CHEMICAL NAME and FAMILY
Mixture of Organic Solvents
Acrylic Cement

TRADE NAME:
WELD-ON 4 for Acrylic

FORMULA: Proprietary

SECTION II - HAZARDOUS INGREDIENTS

Two of the ingredients listed below are listed as a carcinogen (‡) by the IARC and/or NTP

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS#</th>
<th>APPROX %</th>
<th>ACGIH-TLV</th>
<th>ACGIH-STEL</th>
<th>OSHA-PEL</th>
<th>OSHA-STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methylene Chloride</td>
<td>75-09-2</td>
<td>30 - 60*</td>
<td>50 PPM</td>
<td>25 PPM</td>
<td>125 PPM</td>
<td></td>
</tr>
<tr>
<td>Methyl Acetate</td>
<td>79-20-9</td>
<td>30 - 60*</td>
<td>200 PPM</td>
<td>250 PPM</td>
<td>200 PPM</td>
<td></td>
</tr>
<tr>
<td>Methyl Methacrylate Monomer</td>
<td>80-62-6</td>
<td>0 - 5</td>
<td>100 PPM</td>
<td>100 PPM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All of the constituents of Weld-On adhesive products are listed on the TSCA inventory of chemical substances maintained by the US EPA, or are exempt from that listing.

*Title III Section 313 Supplier Notification: This product contains toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40CFR372. This information must be included in all MSDS's that are copied and distributed for this material.

PROPOSITION 65 NOTICE
This product contains chemicals known to the state of California to cause cancer.

This material is an aspiration hazard and defats the skin. The ingredients are toxic by inhalation and ingestion and may be absorbed through the skin. Exposure by these routes may cause central nervous system depression, liver and kidney damage and may sensitize the heart muscle. Methylene Chloride may interfere with the oxygen carrying capacity of the blood. Methylene Chloride is a possible human cancer hazard based on test results with laboratory animals. Methylene Chloride has been listed as a potential carcinogen by IARC and NTP. Methylene Chloride is not believed to pose a measureable risk to man when handled as recommended.

Under some circumstances, mutagenic changes have been observed with Methyl Methacrylate in animal studies. Precautions should be taken to avoid unnecessary exposure to this cement.

SECTION III - PHYSICAL DATA

APPEARANCE
Clear, thin liquid

ODOR
Characteristic odor of chlorinated solvents

BOILING POINT (°F/°C)
104°F (40°C) Based on first boiling component: Methylene Chloride

SPECIFIC GRAVITY @ 73°F ± 3.62° (23°C ± 2°)
Typical 1.09 ± 0.040

VAPOR PRESSURE (mm Hg)
355 mm Hg. @ 68°F (20°C) based on first boiling component, Methylene Chloride

VAPOR DENSITY (Air = 1)
2.93 based on Methylene Chloride

EVAPORATION RATE (BUAC = 1)
Approx. 14.5 based on Methylene Chloride

SOLUBILITY IN WATER
Slightly miscible

VOC STATEMENT: Maximum VOC emissions as applied and tested per SCAQMD Rule 1168, Test Method 316A: 250 Grams/Liter (g/l). Meets VOC emission limits for Plastic Cement Welding.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT
14°F (-10°C) TCC based on Methyl Acetate

FLAMMABLE LIMITS (Percent by Volume)
LEL N/A
UEL N/A

FIRE-extinguishing MEDIA
Dry chemical, carbon dioxide or foam. Water may be an ineffective extinguishing agent.

SPECIAL FIRE FIGHTING PROCEDURES
The use of a SCBA is recommended for fire fighters. Water spray may be useful in minimizing vapors and cooling containers exposed to heat and flame. Avoid spreading burning liquid with water used for cooling purposes.

UNUSUAL FIRE AND EXPLOSION HAZARDS
Avoid hot surfaces and other sources of ignition.
### SECTION V - HEALTH HAZARD DATA

#### PRIMARY ROUTES

<table>
<thead>
<tr>
<th>EFFECT OF OVEREXPOSURE</th>
<th>Inhalation</th>
<th>Skin Contact</th>
<th>Eye Contact</th>
<th>Ingestion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ACUTE:</strong></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CHRONIC:</strong></td>
<td></td>
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</tr>
</tbody>
</table>

**EFFECT OF OVEREXPOSURE**

**INHALATION:** Exposure to vapors may result in nausea, drowsiness, dizziness, headache, fatigue, other CNS effects and heart arrhythmias (irregular heart beats). Can cause irritation of eyes and nasal passages. Exposure to high concentrations may impair blood's ability to transport oxygen. Prolonged or repeated exposure to vapors may cause liver and kidney damage.

**SKIN CONTACT:** Repeated or prolonged contact may result in defatting of skin, irritation, contact dermatitis, rash, itching, swelling. May be absorbed through skin.

**EYE CONTACT:** Direct exposure may result in irritation with corneal or conjunctival inflammation if not removed promptly. Vapors may irritate eyes.

**INGESTION:** Moderately toxic. Irritant to digestive tract, may induce signs of central nervous system depression. Do not induce vomiting and obtain prompt medical attention.

**EMERGENCY AND FIRST AID PROCEDURES**

**INHALATION:** Remove patient to fresh air and if breathing stopped, give artificial respiration. If breathing is difficult, give oxygen. Contact physician immediately.

**EYE CONTACT:** Immediately flush eyes with flowing water for 15 minutes and contact a physician.

**SKIN CONTACT:** Wash skin with soap and water. Remove contaminated clothing and shoes. Launder clothing before reuse. If irritation develops, get medical attention.

**INGESTION:** Give 1 or 2 glasses of water or milk. Do not induce vomiting. Call physician or poison control center immediately.

**SECTION VI - REACTIVITY**

**STABILITY:** Stable under normal conditions of storage and handling. Avoid contact or exposure to fire, heat, sparks, electric arcs, open flame and hot surfaces which can cause thermal decomposition.

**CONDITIONS TO AVOID:** Stable under normal conditions of storage and handling. Avoid contact or exposure to fire, heat, sparks, electric arcs, open flame and hot surfaces which can cause thermal decomposition.

**STORAGE:** Activity.

**HAZARDOUS DECOMPOSITION PRODUCTS**

This product gives out carbon monoxide (CO), carbon dioxide (CO₂), Phosgene gas and smoke upon combustion or contact with reactive metals.

**HAZARDOUS INCOMPATIBILITY**

(MATERIALS TO AVOID) Strong alkalies, oxygen, nitrogen, peroxide, potassium and reactive metals.

**HAZARDOUS POLYMERIZATION**

MAY OCCUR

**CONDITIONS TO AVOID**

Keep away from heat, sparks, open flame and other sources of ignition.

**SECTION VII - SPILL OR LEAK PROCEDURES**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED**

Evacuate area, ventilate and avoid breathing vapors. Dike area to contain spill. Clean up area (wear protective equipment) by mopping or with absorbent material and place in closed containers for disposal. Avoid contamination of ground and surface waters. Do not flush to sewer. If spill occurs indoors, turn off heating and/or air conditioning systems to prevent vapors from contaminating entire building.

**WASTE DISPOSAL METHOD**

Recovered liquids may be sent to a licensed reclaimer or incineration facility. Contaminated material must be disposed of in a permitted solid waste management facility. Follow local, State and Federal regulations. Material should not be allowed to drain into domestic sewer or storm drains. Consult disposal expert.

**SECTION VIII - SPECIAL PROTECTION INFORMATION**

**RESPIRATORY PROTECTION** (Specify type)

Atmospheric levels should be maintained below established exposure limits contained in Section II. If airborne concentrations exceed those limits, use of a NIOSH approved positive-pressure, full-facepiece SCBA or positive-pressure, full-facepiece supplied air respirator (with an auxiliary positive pressure SCBA) is recommended. Even for emergency and other conditions where short term exposure guidelines may/may not be exceeded, use of an approved positive pressure self-contained breathing apparatus (SCBA) is recommended.

**VENTILATION**

Use only with adequate ventilation. Do not use in close quarters of confined spaces. Open doors and/or windows to ensure airflow and air changes. Use local exhaust ventilation to remove airborne contaminants from employee breathing zone and to keep contaminants below 25 ppm TWA. Use only explosion-proof ventilation equipment. Monitoring should be performed to determine exposure level(s) IAW (in accordance with) 29 CFR 1910.1052.

**PROTECTIVE GLOVES**

PVA coated or latex-nitrile for frequent dipping/immersion. Use of latex/nitrile surgical gloves or solvent resistant barrier creme should provide adequate protection when normal practices & procedures are used for solvent-cement welding/bonding of plastic sheet or other substrate joints.

**EYE PROTECTION**

Splashproof chemical goggles, face shield, safety glasses (spectacles) with brow guard and side shields, etc. as appropriate for exposure.

**OTHER PROTECTIVE EQUIPMENT AND HYGIENIC PRACTICES**

Impervious apron and a source of running water to flush or wash the eyes and skin in case of contact.

**SECTION IX - SPECIAL PRECAUTIONS**

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING**

Store in a shaded place between 40°F - 110°F (5°C - 43.7°C). Keep away from all sources of heat, sparks, open flame and other sources of ignition. Close container after each use. Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Train employees on all special handling procedures before they work with this product.

**OTHER PRECAUTIONS**

Follow all precautionary information given on container label, product bulletins and our solvent cementing literature. All material handling equipment should be electrically grounded.

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof.