MATERIAL SAFETY DATA SHEET

SECTION I

MANUFACTURER'S NAME
IPS Corporation

ADDRESS
17109 S. Main St., P.O. Box 379, Gardena, CA. 90248

TRADE NAME:
WELD-ON 4052 Low VOC Multi-Purpose Cement for Plastics

CHEMICAL NAME and FAMILY
Solvent Cement for Multi-Purpose Plastics
Mixture of Synthetic Resin and Organic Solvents

FORMULA: Proprietary

SECTION II - HAZARDOUS INGREDIENTS

None of the ingredients below are listed as carcinogens by IARC, NTP or OSHA

<table>
<thead>
<tr>
<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>Synthetic Resin</td>
<td>109-99-9</td>
<td>25 - 50</td>
<td>50 PPM# Skin</td>
<td>100 PPM</td>
<td>200 PPM</td>
</tr>
<tr>
<td>Tetrahydrofuran (THF)**</td>
<td>109-99-9</td>
<td>25 - 50</td>
<td>50 PPM# Skin</td>
<td>100 PPM</td>
<td>200 PPM</td>
</tr>
<tr>
<td>Methyl Ethyl Ketone (MEK)</td>
<td>78-93-3</td>
<td>16 - 31*</td>
<td>200 PPM</td>
<td>300 PPM</td>
<td>200 PPM</td>
</tr>
<tr>
<td>Cyclohexanone</td>
<td>108-94-1</td>
<td>1 - 15</td>
<td>20 PPM Skin</td>
<td>50 PPM</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.

**Information found in a report from the National Toxicology Program (NTP) on an inhalation study in rats and mice suggests that Tetrahydrofuran (THF) can cause tumors in animals. In the study the rats and mice were exposed to THF vapor levels up to 1800 PPM for two years (their lifetime), 6 hours/day, 5 days/week. Test results showed evidence of liver tumors in female mice and kidney tumors in male rats. No evidence of tumors was seen in female rats and male mice. There is no data linking Tetrahydrofuran exposure with cancer in humans.

SECTION III - PHYSICAL DATA

APPEARANCE
Clear, medium syrupy liquid

ODOR
Ethereal

BOILING POINT (°F/°C)
151°F (67°C) Based on first boiling component: THF

SPECIFIC GRAVITY @ 73°F ± 3.6° (23°C ± 2°)
Typical 0.986 ± 0.040

VAPOR PRESSURE (mm Hg.)
143 mm hg, based on first boiling component, THF @ 68°F (20°C)

PERCENT VOLATILE BY VOLUME (%)
Approx: 60 - 80%

VAPOR DENSITY (Air = 1)
2.49

EVAPORATION RATE (BUAC = 1)
> 1.0

SOLUBILITY IN WATER
Solvent portion completely soluble in water. Resin portion separates out.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT
-4°F (-20°C); T.C.C. Based on THF

FLAMMABLE LIMITS (PERCENT BY VOLUME)

<table>
<thead>
<tr>
<th>LEL</th>
<th>UEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0</td>
<td>11.8</td>
</tr>
</tbody>
</table>

SPECIAL FIRE FIGHTING PROCEDURES
Evacuate enclosed areas. Stay upwind. Close quarters or confined spaces require self-contained breathing apparatus, positive pressure masks or airline masks. Use water spray to cool containers, to flush spills from source of ignition and to disperse vapors.

UNUSUAL FIRE AND EXPLOSION HAZARDS
Fire hazard because of low flash point and high volatility. Vapors are heavier than air and may travel to source(s) of ignition at or near ground or lower levels and flash back.
SECTION V - HEALTH HAZARD DATA

PRIMARY ROUTES
OF ENTRY:   X Inhalation   X Skin Contact    Eye Contact    Ingestion

EFFECT OF OVEREXPOSURE

ACUTE:
Inhalation: Severe overexposure may result in nausea, dizziness, headache. Can cause drowsiness, irritation of eyes and nasal passages.
Skin Contact: Skin irritant. Liquid contact may remove natural skin oils resulting in skin irritation. Dermatitis may occur with prolonged contact.
Skin Absorption: Prolonged or widespread exposure may result in the absorption of harmful amounts of material.
Eye Contact: Overexposure may result in severe eye injury with corneal or conjunctival inflammation on contact with the liquid. Vapors slightly uncomfortable.
Ingestion: Moderately toxic. May cause nausea, vomiting, diarrhea. May cause mental sluggishness.

CHRONIC:
Symptoms of respiratory tract irritation and damage to respiratory epithelium were reported in rats exposed to 5000 ppm THF for 90 days. Elevation of SGPT suggests a disturbance in liver function. The NOEL was reported to be 200 ppm.

REPRODUCTIVE EFFECTS  TERATOGENICITY  MUTAGENICITY  EMBRYOTOXICITY  SENSITIZATION TO PRODUCT  SYNERGISTIC PRODUCTS
N. AP.   N. AP.   N. AP.   N. AP.   N. AP.   N. AP.
MATERIALS TO AVOID: Caustics, ammonia, inorganic acids, chlorinated compounds, strong oxidizers and isocyanates.

HAZARDOUS DECOMPOSITION PRODUCTS
When forced to burn, this product gives out carbon monoxide, carbon dioxide, hydrogen chloride and smoke.

HAZARDOUS POLYMERIZATION:
MAY OCCUR
WILL NOT OCCUR

HAZARDOUS CONDITIONS TO AVOID

STABILITY  UNSTABLE

KEEP AWAY FROM HEAT, SPARKS, OPEN FLAME AND OTHER SOURCES OF IGNITION.

SECTION VI - REACTIVITY

INCOMPATIBILITY
(MATERIALS TO AVOID): Caustics, ammonia, inorganic acids, chlorinated compounds, strong oxidizers and isocyanates.

HAZARDOUS CONDITIONS TO AVOID

STABILITY  UNSTABLE

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
Eliminate all ignition sources. Avoid breathing of vapors. Keep liquid out of eyes. Flush with large amount of water. Contain liquid with sand or earth. Absorb with sand or nonflammable absorbent material and transfer into steel drums for recovery or disposal. Prevent liquid from entering drains.

WASTE DISPOSAL METHOD

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 organic vapor cartridge respirator with full face-piece is recommended. The effectiveness of an air purifying respirator is limited. Use it only for a single short-term exposure. For emergency and other conditions where short-term exposure guidelines may be exceeded, use an approved positive pressure self-contained breathing apparatus.

VENTILATION
Use only with adequate ventilation. Provide sufficient ventilation in volume and pattern to keep contaminants below applicable exposure limits set forth in Section II. Use only explosion proof ventilation equipment.

PROTECTIVE GLOVES
PVA coated rubber gloves for frequent dipping/immersion. Use of latex/nitrile surgical gloves or solvent resistant barrier creme should provide adequate protection when normal solvent-cement welding practices and procedures are used for solvent welding of plastic sheet/pipe joints.

EYE PROTECTION
Splashproof chemical goggles, face shield, safety glasses with brow guards 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 the shade between 40°F - 110°F (5°C - 43°C). Keep away from heat, sparks, open flame and other sources of ignition. Avoid prolonged breathing of vapor. 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.