

IPS WELD-ON		<b>MATERIAL SAFETY DATA SHEET</b>				Date Revised: OCT 1999 Supersedes: FEB 1999	
Information on this form is furnished solely for the purpose of compliance with the Occupational Safety and Health Act and shall not be used for any other purpose. IPS Corporation urges the customers receiving this Material Safety Data Sheet to study it carefully to become aware of the hazards, if any, of the product involved. In the interest of safety, you should notify your employees, agents and contractors of the information on this sheet.							
SECTION I							
<b>MANUFACTURER'S NAME</b> IPS Corporation <b>ADDRESS</b> 17109 S. Main St., P.O. Box 379, Gardena, CA. 90248				<b>Transportation Emergencies:</b> CHEMTREC: (800) 424-9300 or 3 E COMPANY (800) 451-8346 <b>Medical Emergencies:</b> 3 E COMPANY (24 Hour No.) (800) 451-8346 <b>Business: (310) 898-3300</b>			
<b>CHEMICAL NAME and FAMILY</b> Solvent Cement for PVC Plastic Pipe Mixture of PVC Resin and Organic Solvents				<b>TRADE NAME:</b> WELD-ON 705, 707, 710, 711, 717 and 721 for PVC Plastic Pipe <b>FORMULA:</b> Proprietary			
SECTION II - HAZARDOUS INGREDIENTS							
None of the ingredients below are listed as carcinogens by IARC, NTP or OSHA							
	<b>CAS#</b>	<b>APPROX %</b>	<b>ACGIH-TLV</b>	<b>ACGIH-STEL</b>	<b>OSHA-PEL</b>	<b>OSHA-STEL</b>	<b>DUPONT (A) AEL (B) STEL</b>
Polyvinyl Chloride Resin (PVC)	NON/HAZ		N/A		N/A		
Tetrahydrofuran (THF)**	109-99-9	25-70	200 PPM	250 PPM	200 PPM	250 PPM	25 PPM 75 PPM
Methyl Ethyl Ketone (MEK)	78-93-3	10-36*	200 PPM	300 PPM	200 PPM	300 PPM	
Cyclohexanone	108-94-1	1-10	25 PPM Skin		25 PPM Skin		
* 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.							
(A) Dupont's Acceptable Exposure Limit (AEL) guidelines for 8 hour and 12 hour TWA, (B) Dupont's recommended STEL for 15 minute TWA.							
**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.							
<b>BULK SHIPPING INFORMATION / CONTAINERS LARGER THAN ONE LITER</b>				<b>SPECIAL HAZARD DESIGNATIONS</b>			
DOT Shipping Name: Adhesive				<b>HMIS</b>			
DOT Hazard Class: 3				<b>NFPA</b>			
Identification Number: UN 1133				<b>HAZARD RATING</b>			
Packaging Group: II				HEALTH: 2			
Label Required: Flammable Liquid				FLAMMABILITY: 3			
<b>SHIPPING INFORMATION FOR CONTAINERS LESS THAN ONE LITER</b>				REACTIVITY: 0			
DOT Shipping Name: Consumer Commodity				PROTECTIVE EQUIPMENT: H			
DOT Hazard Class: ORM-D				HAZARD RATING: 0 - MINIMAL			
				1 - SLIGHT			
				2 - MODERATE			
				3 - SERIOUS			
				4 - SEVERE			
H = Eye, Hand/Skin, Respiratory Protection and Impermeable Apron							
SECTION III - PHYSICAL DATA							
<b>APPEARANCE</b> 705 - gray or clear, syrupy liquid; 707 - clear, medium syrupy liquid; 710 - clear, thin syrupy liquid; 711 - white or opaque gray, syrupy liquid; 717 - opaque gray or clear, medium syrupy liquid; 721 - blue, medium syrupy liquid		<b>ODOR</b> Ethereal (Threshold = 2-50 PPM)		<b>BOILING POINT (°F/°C)</b> 151°F (67°C)		<b>FREEZING POINT</b> -163°F (-108.5°C)	
				Based on THF			
<b>SPECIFIC GRAVITY @ 73°F ± 3.6° (20°C ± 2°)</b> Typical for 705 and 707: 0.920 ± 0.040/ for 710: 0.900 ± 0.040/ for 711: 0.951 ± 0.040/ for 717: 0.947 ± 0.040/ For 721: 0.937 ± 0.040		<b>VAPOR PRESSURE (mm Hg.)</b> 143 mm Hg. based on first boiling component, THF @ 68°F (20°C)		<b>PERCENT VOLATILE BY VOLUME (%)</b> Approx: 80 - 90 %			
<b>VAPOR DENSITY (Air = 1)</b> 2.49		<b>EVAPORATION RATE (BUAC = 1)</b> > 1.0		<b>SOLUBILITY IN WATER</b> Solvent portion completely soluble in water. Resin portion separates out.			
VOC STATEMENT: Depending on the specific product, maximum VOC emission per SCAQMD Rule 1168, Test Method 316A: variable up to 510 Grams/Liter.							
SECTION IV - FIRE AND EXPLOSION HAZARD DATA							
<b>FLASH POINT</b> -4°F (-20°C) T.C.C. Based on THF				<b>FLAMMABLE LIMITS</b> (PERCENT BY VOLUME)		<b>LEL</b>	<b>UEL</b>
						2.0	11.8
<b>FIRE EXTINGUISHING MEDIA</b> Ansul "Purple K" potassium bicarbonate dry chemical, carbon dioxide, National Aer-O-Foam universal alcohol resistant foam, water spray.							
<b>SPECIAL FIRE FIGHTING PROCEDURES</b> Evacuate enclosed areas. Stay upwind. Close or confined quarters 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.							
<b>UNUSUAL FIRE AND EXPLOSION HAZARDS</b> 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 floor or lower levels and may flash back.							

## SECTION V - HEALTH HAZARD DATA

### PRIMARY ROUTES

OF ENTRY:  Inhalation  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. AV.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Individuals with pre-existing diseases of the eyes, skin or respiratory system may have increased susceptibility to the toxicity of excessive exposures.

### EMERGENCY AND FIRST AID PROCEDURES

Inhalation: If overcome by vapors, remove to fresh air and if breathing stopped, give artificial respiration. If breathing is difficult, give oxygen. Call physician.  
Eye Contact: Flush eyes with plenty of water for 15 minutes and call a physician.  
Skin Contact: Remove contaminated clothing and shoes. Wash skin with plenty of soap and water for at least 15 minutes. 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	UNSTABLE	STABLE	CONDITIONS TO AVOID
		X	Keep away from heat, sparks, open flame and other sources of ignition.

### INCOMPATIBILITY

(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	CONDITIONS TO AVOID
		X	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

Follow local, State and Federal regulations. Consult disposal expert. Can be disposed of by incineration. Excessive quantities should not be permitted to enter drains. Empty containers should be air dried before disposing. Hazardous Waste Code: 214.

## 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

EYE PROTECTION  
Splashproof chemical goggles

### 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 - 43.7°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.