

IPS WELD-ON		MATERIAL SAFETY DATA SHEET				Date Revised: JAN 2008 Supersedes: JAN 2005																									
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																															
MANUFACTURER'S NAME IPS Corporation ADDRESS 17109 S. Main St., P.O. Box 379, Gardena, CA. 90248					Transportation Emergencies: CHEMTREC: (800) 424-9300 Medical Emergencies: 3 E COMPANY (24 Hour No.) (800) 451-8346 Business: (310) 898-3300																										
CHEMICAL NAME and FAMILY Aliphatic Polyisocyanate				TRADE NAME: WELD-ON 55 2-Component Cartridge Adhesive System FORMULA: Proprietary																											
SECTION II - HAZARDOUS INGREDIENTS																															
None of the ingredients below are listed as carcinogens by IARC, NTP or OSHA																															
	CAS#	APPROX %	ACGIH-TLV	ACGIH-STEL	OSHA-PEL	OSHA-STEL	Miles (A)MGL (B)STEL																								
<i>Component "A" (Initiator/Catalyst)</i>																															
Homopolymer of HDI*	28182-81-2	89 - 99	N/E	N/E	N/E	N/E	0.5 mg/m³ 1.0 mg/m³																								
<i>Component "B" (Base Resin)</i>																															
Polyester Polyol	NON-HAZ	87 - 99	N/E	N/E	N/E	N/E																									
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 311-312 Supplier Notification: This product is listed on the TSCA Inventory and contains toxic chemicals categorized as Immediate Health Hazard, Delayed Health Hazard and/or Reactive Hazard. (OSHA hazards not DOT hazards) This information should be included in all MSDS's that are copied and distributed for this material.																															
(A) Miles mfg's Acceptable Exposure Limit/Manufacturer's Guideline Limit (MGL) for 8 hour TWA, (B) Miles' recommended STEL for 15 minute TWA.																															
SHIPPING INFORMATION DOT Shipping Name: None DOT Hazard Class: Non-Regulated Identification Number: None Packaging Group: None Label Required: None				SPECIAL HAZARD DESIGNATIONS <table border="1"> <thead> <tr> <th></th> <th>HMIS</th> <th>NFPA</th> <th>HAZARD RATING</th> </tr> </thead> <tbody> <tr> <td>HEALTH:</td> <td>"A" -2, "B"-1</td> <td>"A" -2, "B"-1</td> <td>0 - MINIMAL</td> </tr> <tr> <td>FLAMMABILITY:</td> <td>"A" -1, "B"-0</td> <td>"A" -1, "B"-1</td> <td>1 - SLIGHT</td> </tr> <tr> <td>REACTIVITY:</td> <td>"A" -1, "B"-0</td> <td>"A" - 1, "B"-0</td> <td>2 - MODERATE</td> </tr> <tr> <td>PROTECTIVE EQUIPMENT:</td> <td colspan="2">B - H</td> <td>3 - SERIOUS</td> </tr> <tr> <td></td> <td colspan="2"></td> <td>4 - SEVERE</td> </tr> </tbody> </table> B = Eye, Hand/Skin (for normal solvent-welding, small spill, clean-up activities) H = Eye, Hand/Skin, Respiratory Protection and Impermeable Apron (splash/immersion risks)					HMIS	NFPA	HAZARD RATING	HEALTH:	"A" -2, "B"-1	"A" -2, "B"-1	0 - MINIMAL	FLAMMABILITY:	"A" -1, "B"-0	"A" -1, "B"-1	1 - SLIGHT	REACTIVITY:	"A" -1, "B"-0	"A" - 1, "B"-0	2 - MODERATE	PROTECTIVE EQUIPMENT:	B - H		3 - SERIOUS				4 - SEVERE
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SECTION III - PHYSICAL DATA																															
APPEARANCE "A": Clear/pale yellow syrupy liquid "B": Clear, syrupy liquid		ODOR "A": Slight, "B": None		BOILING POINT (°F/°C) "A": 446 °F (230 °C) "B": N/A																											
SPECIFIC GRAVITY @ 73°F ± 3.6° (23°C ± 2°) "A": Typical 1.17 ± 0.040 "B": Typical 1.12 ± 0.040		VAPOR PRESSURE (mm Hg.) "A": 7.5 x 10 -5 "B": N/E		PERCENT VOLATILE BY VOLUME (%) "A": Negligible "B": None																											
VAPOR DENSITY (Air = 1) "A": N/E, "B": Heavier than air		EVAPORATION RATE (BUAC = 1) "A": N/A "B": Slower than ether		SOLUBILITY IN WATER "A": Insoluble in water and produces Carbon Dioxide "B": N/A																											
VOC STATEMENT: VOC: 0 Grams/Liter. Reactive Adhesive. Meets SCAQMD Rule 1168 VOC emission limits for Plastic Cement Welding.																															
SECTION IV - FIRE AND EXPLOSION HAZARD DATA																															
FLASH POINT Seta Flash 460°F (237.7°C)				FLAMMABLE LIMITS (PERCENT BY VOLUME)		LEL N/A	UEL N/A																								
FIRE EXTINGUISHING MEDIA Dry chemical; carbon dioxide; foam; water spray for larger fires.																															
SPECIAL FIRE FIGHTING PROCEDURES Full emergency equipment with self-contained breathing apparatus and full protective clothing should be worn by firefighters. During a fire, HDI vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion. Closed container may explode when exposed to extreme heat or burst when contaminated with water.																															
UNUSUAL FIRE AND EXPLOSION HAZARDS Sealed containers exposed to elevated temperature may rupture explosively due to polymerization. Vapors are heavier than air and may travel to source(s) of ignition at or near ground or lower level(s) and flash back. Susceptible to spontaneous heating.																															

SECTION V - HEALTH HAZARD DATA

PRIMARY ROUTES

OF ENTRY: X Inhalation X Skin Contact Eye Contact Ingestion

EFFECT OF OVEREXPOSURE

ACUTE:

Inhalation: May cause irritation to mucous membranes in the respiratory tract (nose throat, lungs) causing runny nose, sore throat, coughing, chest discomfort, shortness of breath.

Skin Contact: Can cause irritation and redness, swelling, rash, scaling or blistering.

Eye Contact: Irritating. Can cause pain, tearing, redness and swelling.

Ingestion: Moderately toxic. Do not induce vomiting. Obtain medical attention.

CHRONIC:

Symptoms of respiratory tract irritation and damage may result in chest tightness, wheezing, cough, shortness of breath or asthmatic attack.

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: Pre-existing diseases, asthma and other respiratory disorders (bronchitis, emphysema, hyperreactivity), skin allergies, eczema.

EMERGENCY AND FIRST AID PROCEDURES

Inhalation: If overcome by vapors, remove patient to fresh air and if breathing stopped, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Eye Contact: Flush eyes with flow of tepid/luke-warm water for 15 minutes and call a physician.

Skin Contact: Immediately remove contaminated clothing and shoes. Get under a safety shower and wash skin with soap and water for at least 15 minutes. Wash contaminated clothing before reuse. If irritation develops, get medical attention.

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

SECTION VI - REACTIVITY

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	None known.

INCOMPATIBILITY

(MATERIALS TO AVOID) Water, amines, strong bases, alcohol, metal compounds and surface active materials.

HAZARDOUS DECOMPOSITION PRODUCTS

When forced to burn, by high heat and fire, this product gives out carbon monoxide, carbon dioxide, oxides of nitrogen, HCN and HDI.

HAZARDOUS	MAY OCCUR	X	CONDITIONS TO AVOID
POLYMERIZATION	WILL NOT OCCUR		Contact with moisture or other materials which react with isocyanate may cause polymerization. Prolonged Component B contact with acids or bases can lead to hydrolysis.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Evacuate nonessential personnel. Remove all sources of ignition and ventilate the area. Put on personal protective equipment. Contain and cover the spill with dirt, sand or other nonflammable absorbent material and transfer into appropriate containers for recovery or disposal. Prevent liquid from entering storm drains.

WASTE DISPOSAL METHOD

Observe all local, State and Federal regulations related to health and environmental exposures. Consult local, State and Federal authorities or a disposal expert. Empty containers must be handled with care due to product residue.

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 or approved for use in isocyanate containing environment may be necessary. The effectiveness of air purifying respirator is limited. use it only for a 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 (HCl and Polyisocyanate) below applicable exposure limits set forth in Section II. Use only explosion proof ventilation equipment.

PROTECTIVE GLOVES Neoprene, butyl rubber or other permeation resistant gloves when immersion or extended contact is possible.

EYE PROTECTION
Safety glasses/spectacles, splashproof chemical goggles and/or face shield.

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

Precautions must be taken so that the persons handling HDI do not breathe the vapors or have it contact eyes or skin. Use adequate ventilation. Train employees on all special handling procedures before they work with this product. For best performance, store in a cool dark place between 50°F (10°C) and 80°F (27°C). Keep away from all sources of heat, sparks, open flame and other sources of ignition. If container is exposed to high heat, it can be pressurized and possibly rupture explosively. Avoid skin contact with this product. Store the material in tightly closed container to prevent moisture contamination.

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.