

IPS WELD-ON		MATERIAL SAFETY DATA SHEET		Date Revised: OCT 2004 Supersedes: DEC 2003																									
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SECTION I																													
MANUFACTURER'S NAME IPS Corporation ADDRESS 600 Ellis Road, Durham, NC 27703			Transportation Emergencies: CHEMTREC: (800) 424-9300 Medical Emergencies: 3 E COMPANY (24 Hour No.) (800) 451-8346 Business: (919) 598-2400																										
CHEMICAL NAME and FAMILY Acrylic Reactive Adhesive Mixture of Polymeric Resins and Methyl Methacrylate Monomer			TRADE NAME: WELD-ON STRUCTURAL SERIES -- 100 Series SS 115, SS 140, SS160 Adhesives--- Component A 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																							
Synthetic Polymer Resin	NON/HAZ		N/A		N/A																								
Methyl Methacrylate Monomer, Stabilized	80-62-6	55 - 65*	100 PPM		100 PPM																								
Methacrylic Acid	79-41-4	1 - 5	20 PPM (Skin)	N/E	N/E	N/E																							
All of the constituents of Weld-On adhesive products are either listed on the TSCA inventory of chemical substances maintained by the US EPA and the Canadian Domestic Substance List or are exempt therefrom.																													
*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.																													
BULK SHIPPING INFORMATION / CONTAINERS LARGER THAN ONE LITER DOT Shipping Name: Adhesive DOT Hazard Class: 3 Identification Number: UN 1133 Packaging Group: II Label Required: Flammable Liquid			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>2</td> <td>2</td> <td>0 - MINIMAL</td> </tr> <tr> <td>FLAMMABILITY:</td> <td>3</td> <td>3</td> <td>1 - SLIGHT</td> </tr> <tr> <td>REACTIVITY:</td> <td>1</td> <td>1</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 Protection (Normal use or application & small spill clean-up activities) H = Eye, Hand/Skin and Respiratory Protection plus Impermeable Apron (When risk of immersion, dipping and/or splashing is present)				HMIS	NFPA	HAZARD RATING	HEALTH:	2	2	0 - MINIMAL	FLAMMABILITY:	3	3	1 - SLIGHT	REACTIVITY:	1	1	2 - MODERATE	PROTECTIVE EQUIPMENT:	B - H		3 - SERIOUS				4 - SEVERE
	HMIS	NFPA	HAZARD RATING																										
HEALTH:	2	2	0 - MINIMAL																										
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PROTECTIVE EQUIPMENT:	B - H		3 - SERIOUS																										
			4 - SEVERE																										
SHIPPING INFORMATION FOR CONTAINERS LESS THAN ONE LITER DOT Shipping Name: Consumer Commodity DOT Hazard Class: ORM-D																													
SECTION III - PHYSICAL DATA																													
APPEARANCE Off-white, heavy viscous liquid		ODOR Distinct Strong Odor		BOILING POINT (°F/°C) 214°F (102°C) Based on Methyl Methacrylate Monomer																									
SPECIFIC GRAVITY @ 73°F ± 3.6° (23°C ± 2°) Typical 0.960 ± 0.040		VAPOR PRESSURE (mm Hg.) 29 mm Hg. @ 68°F (20°C) based on Methyl Methacrylate Monomer		PERCENT VOLATILE BY VOLUME (%) Approx: 50 -70 %																									
VAPOR DENSITY (Air = 1) 3.46 based on Monomer		EVAPORATION RATE (BUAC = 1) Approx. 3		SOLUBILITY IN WATER Slight																									
SECTION IV - FIRE AND EXPLOSION HAZARD DATA																													
FLASH POINT 51°F (10.6°C) T.C.C.		FLAMMABLE LIMITS (Percent by Volume)		LEL 2.1	UEL 12.5																								
FIRE EXTINGUISHING MEDIA Foam, carbon dioxide, dry chemical, water fog (by trained personnel).																													
SPECIAL FIRE FIGHTING PROCEDURES Full protective equipment, including self-contained breathing apparatus, is recommended. Cool containers of material exposed to heat with cold water spray. Use of water fog by trained personnel can extinguish small/large fires and avoid water flow or water streams distributing burning material or contaminated water over a large area or into sewers or storm drains. Fight fires from a safe distance or protected area.																													
UNUSUAL FIRE AND EXPLOSION HAZARDS Sealed containers exposed to elevated temperatures may rupture due to polymerization or vapor expansion. Vapors are heavier than air and may travel to source(s) of ignition at or near floor or lower level(s) and flash back. Susceptible to spontaneous heating. Considered a fire hazard because of low flash point.																													

SECTION V - HEALTH HAZARD DATA

PRIMARY ROUTES

OF ENTRY: X Inhalation X Skin Contact Eye Contact Ingestion

EFFECT OF OVEREXPOSURE

ACUTE:

Inhalation: Exposure may result in nausea, drowsiness, dizziness, headache and other CNS effects. Can cause irritation of eyes and nasal passages.
Skin Contact: Skin irritant. Potential skin sensitizer. Repeated or prolonged contact may result in skin irritation, contact dermatitis, rash, itching, swelling.
Eye Contact: Direct exposure may result in irritation with corneal or conjunctival inflammation.
Ingestion: Moderately toxic. Do not induce vomiting and obtain prompt medical attention.

CHRONIC:

Inhalation Toxicity described in animals exposed by inhalation include inflammation of the nasal cavity and changes in nasal sensory cells and slight decrease in body weight.
Ingestion Toxicity described in animals exposed by ingestion include decreased body weight and increased relative kidney weight at high dose levels.

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: This material may aggravate an existing dermatitis. Individuals with pre-existing diseases of the lungs, liver or kidney may have increased susceptibility to the toxicity of excessive exposures.

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 water for 15 minutes and contact a physician.
Skin Contact: Wash skin with 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		CONDITIONS TO AVOID: Exposure to fire, heat, sparks, open flame and other sources of ignition, direct sunlight or contact with oxidizing materials.
	STABLE	X	

INCOMPATIBILITY
(MATERIALS TO AVOID) Reducing and oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

This product gives out carbon monoxide (CO), carbon dioxide (CO₂) and smoke upon combustion. Generates heat when mixed with oxidizing materials.

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	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 exposure of personnel to toxic concentration of vapor and guard against accidental fire and explosion. Contain liquid with sand, earth 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. 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 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 adhesive bonding practices and procedures for small quantity mixing and/or application are used.

EYE PROTECTION Splashproof chemical goggles, face shield, safety glasses (spectacles) 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 - 100°F (5°C - 38°C). Keep away from heat, sparks, open flame and other sources of ignition. Close container after each use. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Train employees on all special handling procedures before they work with product.

OTHER PRECAUTIONS

Follow all precautionary information given on container label, product bulletins and application instructions. 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.

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SECTION I						
MANUFACTURER'S NAME IPS Corporation ADDRESS 600 Ellis Road, Durham, NC 27703			Transportation Emergencies: CHEMTREC: (800) 424-9300 Medical Emergencies: 3 E COMPANY (24 Hour No.) (800) 451-8346 Business: (919) 598-2400			
CHEMICAL NAME and FAMILY Acrylic Reactive Adhesive Activator Mixture of Organic Peroxide and Polyvinyl Alcohol			TRADE NAME: WELD-ON STRUCTURAL SERIES -- 100 Series SS 115, SS 140, SS 160 Adhesives --- Component B 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	
Synthetic Polymer Resin	NON/HAZ					
Blended mixture of benzoate esters	NON/HAZ					
55% Benzoyl Peroxide paste in proprietary plasticizer	94-36-0	7 - 14*	5 mg/m ³		5 mg/m ³	
All of the constituents of Weld-On adhesive products are either listed on the TSCA inventory of chemical substances maintained by the US EPA and the Canadian Domestic Substance List or are exempt therefrom.						
*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.						
SHIPPING INFORMATION			SPECIAL HAZARD DESIGNATIONS			
DOT Shipping Name:	Not Regulated		HMIS	NFPA	HAZARD RATING	
DOT Hazard Class:	Not Regulated		HEALTH:	1	1	0 - MINIMAL
Identification Number:	Not Regulated		FLAMMABILITY:	1	1	1 - SLIGHT
Packaging Group:	Not Regulated		REACTIVITY:	1	1	2 - MODERATE
Label Required:	Not Regulated		PROTECTIVE			3 - SERIOUS
Label Required:	Not Regulated		EQUIPMENT:	B		4 - SEVERE
			B = Eye, & Hand/Skin Protection			
SECTION III - PHYSICAL DATA						
APPEARANCE White, viscous liquid	ODOR None	BOILING POINT (°F/°C) 644°F (340°C)				
SPECIFIC GRAVITY @ 73°F ± 3.6° (23°C ± 2°) Typical 1.087 ± 0.040	VAPOR PRESSURE (mm Hg.) 1 mm Hg. @ 298°F (147°C)	PERCENT VOLATILE BY VOLUME (%) Approx: 6 - 10%				
VAPOR DENSITY (Air = 1) 9.6	EVAPORATION RATE (BUAC = 1) N/A	SOLUBILITY IN WATER Insoluble				
SECTION IV - FIRE AND EXPLOSION HAZARD DATA						
FLASH POINT 340°F (172.5°C) C.O.C for Dibutyl Phthalate	FLAMMABLE LIMITS (Percent by Volume)			LEL 0.47	UEL -	
FIRE EXTINGUISHING MEDIA Ansul "Purple K" potassium bicarbonate dry chemical, any appropriately sized ABC dry chemical, carbon dioxide or foam extinguisher can be used for small fires. Use of a water fog by trained personnel can extinguish small/large fires.						
SPECIAL FIRE FIGHTING PROCEDURES Evacuate enclosed areas. Stay upwind. Full protective equipment, including self-contained breathing apparatus, is recommended. Fight fires from a safe distance or protected area. Use of a water fog by trained personnel can extinguish small/large fires and avoid water flow or water streams/spray distributing burning material or contaminated water over a large area or into sewers or storm drains. Use water spray to cool containers, to flush spills from source of ignition and to disperse vapors.						
UNUSUAL FIRE AND EXPLOSION HAZARDS Sealed containers exposed to elevated temperatures 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 levels and flash back. Susceptible to spontaneous heating. Considered a mild fire hazard because of low flash point. Peroxides and decomposition products are flammable and can ignite with explosive force if confined.						

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 of nose, throat and lungs.
Skin Contact: Prolonged exposure/contact may cause moderate skin irritation and redness (dermatitis).
Eye Contact: May cause eye irritation and/or damage.
Ingestion: Moderately toxic. May cause nausea, vomiting and diarrhea.

CHRONIC:

Toxicity described in animals exposed by inhalation include inflammation of the nasal cavity and changes in nasal sensory cells and slight decrease in body weight. Extremely high concentrations have caused embryotoxic effects in laboratory animals.
 Toxicity described in animals exposed by ingestion include decreased body weight and increased relative kidney weight at high dose levels and damage to the sperm producing cells of the testis.

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: Existing skin and lung disorders such as asthma or inflammatory or fibrotic pulmonary diseases may be aggravated by excessive exposure to this material.

EMERGENCY AND FIRST AID PROCEDURES

Inhalation: If overcome by vapors, remove patient to fresh air and if breathing is stopped, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Eye Contact: Immediately flush eyes with flowing water for 15 minutes and get medical attention.
Skin Contact: Remove contaminated clothing and shoes. Launder before reuse. Wash skin thoroughly with soap and water for at least 15 minutes. If irritation develops, get medical attention.
Ingestion: If swallowed, do not induce vomiting. Contact physician or poison control center immediately.

SECTION VI - REACTIVITY

STABILITY	UNSTABLE		CONDITIONS TO AVOID Thermal decomposition. Contamination.	ACTIVE OXYGEN CONTENT < 1%
	STABLE	X	Keep away from heat, sparks, open flame and other sources of ignition.	

INCOMPATIBILITY
 (MATERIALS TO AVOID) Strong acids, strong bases, strong alkalis, reducing agents, accelerators, reactive metals.

HAZARDOUS DECOMPOSITION PRODUCTS
 Oxides of carbon, oxides of nitrogen, hydrogen cyanide, hydrocarbons, dense smoke and gases upon combustion.

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID Keep away from heat above 130°F (55°C), sparks, open flame and other sources of ignition. Do not store above 100°F (38°C).
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
 Eliminate all ignition sources. Wet material with water. Sweep and scoop up using non-sparking tools and dispose of immediately.

WASTE DISPOSAL METHOD
 Observe all local, State and Federal regulations concerning health and environmental exposures. Consult local, State or Federal authorities or disposal expert for proper disposal procedures.

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 Nitrile or neoprene rubber gloves for frequent dipping/immersion. Use of latex/nitrile surgical gloves or solvent resistant barrier creme should provide adequate protection when normal adhesive bonding practices and procedures are used.	EYE PROTECTION Splashproof chemical goggles, face shield, safety glasses (spectacles) with brow guards and side shields, etc. as appropriate for exposure.
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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.

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