

IPS		MATERIAL SAFETY DATA SHEET		Date Revised: APR 2007		
WELD-ON				Supersedes: MAR 2006		
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 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 Synthetic Resin and Methyl Methacrylate Monomer			TRADE NAME: WELD-ON STRUCTURAL SERIES -- 500 Series SS 505, SS 515, Adhesives -- Component A (Base Resin) 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	60 - 80*	100 PPM		100 PPM	
Maleic Acid	110-16-7	1 - 5	N/E		N/E	
Methacrylic Acid	79-41-4	3 - 14*	20 PPM-TWA			
Organic Peroxide	94-36-0	0 - 7*	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.						
BULK SHIPPING INFORMATION / CONTAINERS LARGER THAN ONE LITER			SPECIAL HAZARD DESIGNATIONS			
DOT Shipping Name:	Adhesive		HMIS	NFPA	HAZARD RATING	
DOT Hazard Class:	3		HEALTH:	2	2	0 - MINIMAL
Identification Number:	UN 1133		FLAMMABILITY:	3	3	1 - SLIGHT
Packaging Group:	II		REACTIVITY:	1	1	2 - MODERATE
Label Required:	Flammable Liquid		PROTECTIVE			3 - SERIOUS
			EQUIPMENT:	B - H		4 - SEVERE
			B = Eye, Hand/Skin Protection (Normal use or application & spill clean-up activities)			
			H = Eye, Hand/Skin and Respiratory Protection plus Impermeable Apron (When risk of immersion and/or splashing is present)			
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, viscous liquid	ODOR Distinct 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 1.6 Based on Monomer			
SECTION IV - FIRE AND EXPLOSION HAZARD DATA						
FLASH POINT 51°F (10.6°C) T.C.C. based on Monomer	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. 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: 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.	POSS.	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	MAY OCCUR	X	CONDITIONS TO AVOID
POLYMERIZATION	WILL NOT OCCUR		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 assembly practices, clean up of spills, small quantity mixing and/or application.
 plastic sheet(s) or other substrates.

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 for large spills or splashing 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.

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 600 Ellis Road, Durham, NC 27703	Transportation Emergencies: CHEMTREC: (800) 424-9300 or 3 E COMPANY (800) 451-8346 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 Synthetic Resin and Methyl Methacrylate Monomer	TRADE NAME: WELD-ON STRUCTURAL SERIES -- 500 Series SS 505, SS 515 Adhesives -- Component B (Activator) 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					
Methyl Methacrylate Monomer, Stabilized	80-62-6	60 - 80*	100 PPM		100 PPM	
Catalyst/Initiators	NON-HAZ					

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: Not Regulated	SPECIAL HAZARD DESIGNATIONS <table style="width:100%; border-collapse: collapse;"> <tr> <td></td> <td style="text-align:center;">HMIS</td> <td style="text-align:center;">NFPA</td> <td style="text-align:center;">HAZARD RATING</td> </tr> <tr> <td>HEALTH:</td> <td style="text-align:center;">2</td> <td style="text-align:center;">2</td> <td style="text-align:center;">0 - MINIMAL</td> </tr> <tr> <td>FLAMMABILITY:</td> <td style="text-align:center;">3</td> <td style="text-align:center;">3</td> <td style="text-align:center;">1 - SLIGHT</td> </tr> <tr> <td>REACTIVITY:</td> <td style="text-align:center;">1</td> <td style="text-align:center;">1</td> <td style="text-align:center;">2 - MODERATE</td> </tr> <tr> <td>PROTECTIVE EQUIPMENT:</td> <td colspan="2" style="text-align:center;">B - H</td> <td style="text-align:center;">3 - SERIOUS</td> </tr> <tr> <td colspan="4">B = Eye, Hand/Skin Protection (Normal use or application & spill clean-up activities)</td> </tr> <tr> <td colspan="4">H = Eye, Hand/Skin and Respiratory Protection plus Impermeable Apron (When risk of immersion and/or splashing is present)</td> </tr> </table>		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	B = Eye, Hand/Skin Protection (Normal use or application & spill clean-up activities)				H = Eye, Hand/Skin and Respiratory Protection plus Impermeable Apron (When risk of immersion and/or splashing is present)			
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HEALTH:	2	2	0 - MINIMAL																										
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H = Eye, Hand/Skin and Respiratory Protection plus Impermeable Apron (When risk of immersion and/or splashing is present)																													
SHIPPING INFORMATION FOR CONTAINERS LESS THAN 1 LITER DOT Shipping Name: Consumer Commodity DOT Hazard Class: ORM-D																													

SECTION III - PHYSICAL DATA

APPEARANCE Off-white, viscous liquid	ODOR None	BOILING POINT (°F/°C) 214°F (102°C) Based on Methyl Methacrylate Monomer
SPECIFIC GRAVITY @ 73°F ± 3.6° (23°C ± 2°) Typical 1.087 ± 0.040	VAPOR PRESSURE (mm Hg.) 29 mm Hg. @ 68°F (20°C)	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 1.6 Based on Monomer

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT 51°F (10.6°C) T.C.C based on Monomer	FLAMMABLE LIMITS (Percent by Volume)	LEL	UEL
		2.1	12.5
FIRE EXTINGUISHING MEDIA Foam, carbon dioxide, dry chemical, water fog (by trained personnel).			

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: 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.	POSS.	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	MAY OCCUR	X	CONDITIONS TO AVOID Keep away from heat, sparks, open flame and other sources of ignition.
POLYMERIZATION	WILL NOT OCCUR		

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 assembly practices, clean up of spills, small quantity mixing and/or application.

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 for large spills or splashing and a source of running water to flush or wash the eyes and skin in case of contact.

SECTION IX - SPECIAL PRECAUTIONS

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Follow all precautionary information given on container label, product bulletins and application instructions. All material handling equipment should be electrically grounded.

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