

**SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION**

**PRODUCT NAME:** WELD-ON® 45 Low VOC 2-Component Adhesive **SYNONYMS:** WELD-ON 45  
**PRODUCT USE:** 2-Component Cartridge, Low VOC Adhesive for bonding a wide variety of metals, including aluminum, steel, copper and other metals. Also bonds galvanized steel, PVC, polycarbonate, ABS, acrylic, PETG, wood and other metals and plastics to themselves and to each other.  
**SUPPLIER and MANUFACTURER:** IPS Corporation  
 17109 South Main Street, Carson, CA 90248-3127  
 P.O. Box 379, Gardena, CA 90247-0379  
 Tel. 1-310-898-3300  
**EMERGENCY:** Transportation: Tel. 800.424.9300, 703.527.3887 CHEMTREK (International), **Medical:** Tel. 800.451.8346 3E Company

**SECTION 2 - HAZARDS IDENTIFICATION**

**GHS CLASSIFICATION:**

Health	Environmental	Physical
Acute Toxicity: Category 4 Skin Corrosion: Category 3 Skin Sensitization: YES Eye: Category 2B	Acute Toxicity: Category III Chronic Toxicity: Category IV	Flammable Liquid/Aerosol/Gas: Category 1

**GHS LABEL:**



OR



**WHMIS CLASSIFICATION:** CONTROLLED PRODUCT  
CLASS B, DIVISION 2 CLASS D, DIVISION 2B

Hazard Statements		Precautionary Statements	
Highly flammable liquid and vapor	May cause irritation/allergic skin reaction	Do not breathe vapor	Keep container closed Use in well-ventilated area

**SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS**

Component	CAS#	EINECS #	REACH Pre-registration Number	CONCENTRATION % by Weight
<b>Component "A" (80% -- Base Resin)</b>				
Acrylic Synthetic Resin	NON/HAZ			10 - 25
Methyl Methacrylate Monomer (MMA),* Stabilized	80-62-6	201-297-1	05-2116297731-37-0000	45 - 65
<b>Component "B" (20% -- Activator)</b>				
Acrylonitrile-Butadiene-Styrene (ABS) Resin	NON/HAZ		NE	5 - 20
Benzoyl Peroxide	94-36-0	202-327-6	05-2116297715-31-0000	5 - 20
Diethylene Glycol Dibenzoate	120-55-8	204-407-6	05-2116297720-40-0000	} 30 - 50
Mixture of: Dipropylene Glycol Dibenzoate	27138-31-4	248-258-5	05-2116297721-38-0000	
Triethylene Glycol Dibenzoate	120-56-9	204-408-1	05-2116297723-34-0000	}

All of the constituents of this adhesive product are listed on the TSCA inventory of chemical substances maintained by the US EPA, or are exempt from that listing. \*This chemical is subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40CFR372).

**SECTION 4 - FIRST AID MEASURES**

**Contact with eyes:** Flush eyes immediately with plenty of water for 15 minutes and seek medical advice immediately.  
**Skin contact:** Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water. If irritation develops, seek medical advice.  
**Inhalation:** Remove to fresh air. If breathing is stopped, give artificial respiration. If breathing is difficult, give oxygen. Seek medical advice.  
**Ingestion:** Rinse mouth with water. Give 1 or 2 glasses of water or milk to dilute. Do not induce vomiting. Seek medical advice immediately.

**SECTION 5 - FIREFIGHTING MEASURES**

<b>Suitable Extinguishing Media:</b>	Dry chemical powder, carbon dioxide gas, foam, Halon, water fog.	<b>HMIS</b>	<b>NFPA</b>	0-Minimal
<b>Unsuitable Extinguishing Media:</b>	Water spray or stream.	Health	2	2 1-Slight
<b>Exposure Hazards:</b>	Carbon monoxide, carbon dioxide, hydrogen chloride and smoke	Flammability	3	3 2-Moderate
<b>Combustion Products:</b>	Carbon monoxide, carbon dioxide, hydrogen chloride and smoke	Reactivity	1	1 3-Serious
<b>Protection for Firefighters:</b>	Self-contained breathing apparatus or full-face positive pressure airline masks.			4-Severe

**SECTION 6 - ACCIDENTAL RELEASE MEASURES**

**Personal precautions:** Keep away from heat, sparks and open flame.  
 Provide sufficient ventilation, use explosion-proof exhaust ventilation equipment or wear suitable respiratory protective equipment.  
 Prevent contact with skin or eyes (see section 8).  
**Environmental Precautions:** Prevent product or liquids contaminated with product from entering sewers, drains, soil or open water course.  
**Methods for Cleaning up:** Clean up with sand or other inert absorbant material. Transfer to a closable vessel (Metal or polyethylene [PE])  
**Materials not to be used for clean up:** Liquid(s)

**SECTION 7 - HANDLING AND STORAGE**

**Handling:** Avoid breathing of vapor, avoid contact with eyes, skin and clothing.  
 Keep away from ignition sources, use only electrically grounded handling equipment and ensure adequate ventilation/fume exhaust hoods.  
 Do not eat; drink or smoke while handling.  
**Storage:** Store in ventilated room or shade below 27°C (80°F) and away from direct sunlight.  
 Keep away from ignition sources and incompatible materials: caustics, ammonia, inorganic acids, chlorinated compounds, strong oxidizers and isocyanates.  
 Follow all precautionary information on container label, product bulletins and solvent cementing literature.

**SECTION 8 - PRECAUTIONS TO CONTROL EXPOSURE / PERSONAL PROTECTION**

EXPOSURE LIMITS:	Component	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
	Methyl Methacrylate Monomer	100 ppm	100 ppm	100 ppm	
Benzoyl Peroxide	5 mg/m <sup>3</sup>			5 mg/m <sup>3</sup>	

**Engineering Controls:** If ventilated cabinet, enclosure or fume hood is necessary, average airflow should be at least 100 FPM (50.8 cm/sec).  
**Monitoring:** Maintain breathing zone airborne concentrations below exposure limits.  
**Personal Protective Equipment (PPE):**  
**Eye Protection:** Avoid contact with eyes, wear splashproof chemical goggles, face shield, safety glasses (spectacles) with brow guards and side shields, etc.as may be appropriate for the exposure.  
**Skin Protection:** Prevent contact with the skin as much as possible.Polyethylene or PVA coated rubber gloves should be used for frequent immersion. Use of latex/nitrile surgical gloves or solvent-resistant barrier cream should provide adequate protection when normal adhesive application practices and procedures are used for making structural bonds.  
**Respiratory Protection:** Prevent inhalation of the solvents. Use in a well-ventilated room. Open doors and/or windows to ensure airflow and air changes. Use local exhaust ventilation to remove airborne contaminants from employee breathing zone and to keep contaminants below levels listed above. With normal use, the Exposure Limit Value will not usually be reached. When limits approached, use respiratory protection equipment.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	"A" Off-white, paste-like; "B" Off-white, paste like. Mixture dries to tan color.	<b>Odor Threshold:</b>	"A" or "B" - .085 ppm: MMA
<b>Odor:</b>	"A" Distinct Odour; "B" Essentially Odourless	<b>Active Oxygen Content:</b>	"A" ----, "B" - <1 %
<b>P.H.</b>	Not Applicable	<b>Evaporation Rate:</b>	"A" - Approx. 3 (BUAC = 1) "B" - N/A
<b>Boiling Point:</b>	"A" 102°C (214°F) based on Methyl Methacrylate monomer "B": N/A	<b>Flammability:</b>	"A" - Category I, "B" - Category 2
<b>Flash Point:</b>	"A" 10.6°C (51°F) T.C.C. "B" 217°C (420°F) C.O.C.	<b>Flammability Limits:</b>	<b>LEL:</b> "A" - 2.1%, "B" ---- <b>UEL:</b> "A" - 12.5%, "B" ----
<b>Specific Gravity</b>	@23°C ± 2° (73°F ± 3.6°) Typical "A" 1.089 ± 0.01, "B" 1.300 ± 0.01	<b>Vapour Pressure:</b>	"A" -29 mm Hg @ 20°C (68°F)
<b>Solubility:</b>	"A" 1.6g/100g, based on Monomer; "B" 0.3 g/l	<b>Vapour Density:</b>	"A" - 3.46 Air = 1), "B" - N/A
<b>Auto-ignition Temperature:</b>	"A" - 435°C (815°F): MMA, "B": N/A	<b>Other Data: Viscosity:</b>	Thick syrupy liquid
<b>Decomposition Temperature:</b>	"A" - N/A, "B" - N/A		
<b>VOC Content :</b>	"A" or "B" - As applied and tested per SCAQMD Rule 1168, Test Method 316A: <250 g/l.		

**SECTION 10 - STABILITY AND REACTIVITY**

<b>Stability:</b>	Stable
<b>Hazardous decomposition products:</b>	None in normal use. When forced to burn, this product gives off carbon monoxide (CO), carbon dioxide (CO <sub>2</sub> ), hydrogen chloride (HCl) and smoke.
<b>Conditions to avoid:</b>	Keep away from heat, sparks, open flame and other ignition sources.
<b>Incompatible Materials:</b>	Caustics, ammonia, inorganic acids, chlorinated compounds, strong oxidizers and isocyanates.

**SECTION 11 - TOXICOLOGICAL INFORMATION**

**Likely Routes of Exposure:** Inhalation, Eye and Skin Contact

**Acute symptoms and effects:**

**Inhalation:** Severe overexposure may result in nausea, dizziness, headache. Can cause drowsiness, irritation of eyes and nasal passages.

**Eye Contact:** Vapours slightly uncomfortable. Overexposure may result in severe eye injury with corneal or conjunctival inflammation on contact with the liquid.

**Skin Contact:** Liquid contact may remove natural skin oils resulting in skin irritation. Dermatitis may occur with prolonged contact.

**Ingestion:** May cause nausea, vomiting, diarrhea and mental sluggishness.

**Chronic (long-term) effects:** None known to humans

<b>Toxicity:</b>	LD <sub>50</sub>	LC <sub>50</sub>
Methyl Methacrylate Monomer (MMA)	Oral:7872 mg/kg (rat)	Inhalation 3 hrs. 3750 PPM (rat)
Benzoyl Peroxide paste in proprietary plasticizer	Oral:6400 mg/kg (rat)	

<u>Reproductive Effects</u>	<u>Teratogenicity</u>	<u>Mutagenicity</u>	<u>Embryotoxicity</u>	<u>Sensitization to Product</u>	<u>Synergistic Products</u>
Not Applicable	Not Applicable	Poss.	Not Applicable	Not Applicable	Not Available

**SECTION 12 - ECOLOGICAL INFORMATION**

<b>Ecotoxicity:</b>	Category IV
<b>Mobility:</b>	In normal use, emission of volatile organic compounds (VOC's) to the air takes place. Typically at a rate of <250 Grams/Litre. Minimal other adverse effects include possible ground water contamination from release to soil, sewers, drains or water course.
<b>Degradability:</b>	Biodegradable
<b>BioAccumulation:</b>	Minimal to none.

**SECTION 13 - WASTE DISPOSAL CONSIDERATIONS**

Follow local and national regulations. Consult disposal expert. Can be disposed of by controlled incineration. May be reacted with component "B" and disposed of as trash. Excessive quantities should not be permitted to enter drains, sewers or water courses. Empty containers should be air dried before disposing.

**SECTION 14 - TRANSPORT INFORMATION****DOT, IATA, ADR, IMO/IMDG SHIPPING INFORMATION**

<b>Proper Shipping Name:</b>	Adhesives	<b>EXCEPTION</b> Case quantities of cement in containers of less than one liter may be shipped as LIMITED QUANTITY or CONSUMER COMMODITY, ORM-D
<b>Hazard Class:</b>	3	
<b>Secondary Risk</b>	None	
<b>Identification Number:</b>	UN 1133	
<b>Packing Group:</b>	II	<b>TDG INFORMATION</b>
<b>Label Required:</b>	Flammable Liquid	<b>TDG CLASS:</b> FLAMMABLE LIQUID 3
		<b>SHIPPING NAME:</b> ADHESIVES (METHYL METHACRYLATE MONOMER)
		<b>UN NUMBER:</b> 1133, PG II
<b>Marine Pollutant:</b>	NO	

**SECTION 15 - REGULATORY INFORMATION**

<b>Precautionary Label Information:</b>	Highly Flammable, Irritant	<b>Ingredient Listings:</b> USA TSCA, Europe EINECS, Canada DSL, Australia AICS, Korea ECL/TCCL, Japan MITI (ENCS)
<b>Symbols:</b>	F, Xi	
<b>Risk Phrases:</b>	R-11 Highly Flammable R-36/37/38 Irritating to eyes, respiratory system and skin.	R-43 May cause sensitization by skin contact.
<b>Safety Phrases:</b>	S-2 Keep out of reach of children. S-7 Keep container tightly closed when not in use. S-9 Keep container in a well-ventilated place. S-15/16 Keep away from heat and sources of ignition. No smoking. S-23 Do not breathe vapor.	S-24/25 Avoid contact with skin and eyes. S-29 Do not empty into drains. S-37 Wear suitable gloves. S-45 If seeking medical advice show physician label or SDS. S-46 Use only in well ventilated areas.

**SECTION 16 - OTHER INFORMATION**

<b>Specification Information:</b>		
<b>Department issuing data sheet:</b>	IPS, Safety Health & Environmental Affairs	All ingredients are compliant with the requirements of the European Directive on RoHS (Restriction of Hazardous Substances).
<b>e-mail address:</b>	<EHSinfo@ipscorp.com>	
<b>Training necessary:</b>	Yes, training in practices and procedures contained in product literature.	
<b>Reissue date / reason for reissue:</b>	JUN 2009 / New Modified GHS Standard Format	
<b>Intended Use of Product:</b>	Reactive acrylic adhesive for bonding/cementing metals, plastics and other substrates	

This product is intended for use by skilled individuals at their own risk. The information contained herein is based on data considered accurate based on current state of knowledge and experience. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof.