

SECTION I - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: WELD-ON® AA28™ 3-Component Acrylic Adhesive

PRODUCT USE: 3-Component, reactive, high strength acrylic based adhesive

SUPPLIER:

MANUFACTURER:

IPS Corporation
600 Ellis Road, Durham, NC 27703 - USA
P.O. Box 12729, Research Triangle Park, NC 27709 - USA
Tel. 1-919-598-2400

EMERGENCY: Transportation: Tel. 800.424.9300, 703.527.3887 CHEMTREC (International)

Medical: Tel. 800.451.8346, 760.602.8703 3E Company (International)

SECTION 2 - HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

| | | | | | |
|---------------------|-------------|-------------------|--------------|-------------------|------------|
| Health | | Environmental | | Physical | |
| Acute Toxicity: | Category 4 | Acute Toxicity: | Category III | Flammable Liquid: | Category 2 |
| Skin Irritation: | Category 3 | Chronic Toxicity: | Category IV | | |
| Skin Sensitization: | YES | | | | |
| Eye: | Category 2B | | | | |

GHS LABEL:



OR



Signal Word:
Danger

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

Hazard Statements

Highly flammable liquid and vapor May cause irritation/allergic skin reaction

Precautionary Statements

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 |
|---|----------|-----------|----------------------------------|------------------------------|
| Component "A" (Base Resin-93%) Methyl Methacrylate Monomer (MMA),* Stabilized | 80-62-6 | 201-297-1 | 05-2116297731-37-0000 | 41 - 60 |
| Component "B" (Catalyst-2%) Benzoyl Peroxide (BPO)* | 94-36-0 | 202-327-6 | 05-2116297715-31-0000 | 39 - 57 |
| Component "C" (Promoter-5%) Methyl Methacrylate Monomer (MMA),* Stabilized | 80-62-6 | 201-297-1 | 05-2116297731-37-0000 | 75 - 95 |
| N,N-Dimethylaniline | 121-69-7 | 204-493-5 | under development | 4-10 |

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.
*Indicates 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

- Suitable Extinguishing Media:** Dry chemical powder, carbon dioxide gas, foam, Halon, water fog.
 - Unsuitable Extinguishing Media:** Water spray or stream.
 - Exposure Hazards:** Inhalation and dermal contact
 - Combustion Products:** Oxides of carbon, oxides of nitrogen, hydrocarbons, acrid smoke and gases.
 - Protection for Firefighters:** Self-contained breathing apparatus or full-face positive pressure air-supply masks.
- | | HMS | NFPA | |
|--------------|-----|------|------------|
| Health | 2 | 2 | 1-Slight |
| Flammability | 3 | 3 | 2-Moderate |
| Reactivity | 2 | 2 | 3-Serious |
| | | | 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:** Contain spill with sand or other inert adsorbent or absorbent material. Use non-sparking tools.
Transfer to a closable vessel (Metal or polyethylene [PE])

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 and away from direct sunlight. Keep container tightly closed when not in use.
Keep away from ignition sources and incompatible materials. Follow all precautionary information on container label and product bulletins.

SECTION 8 - PRECAUTIONS TO CONTROL EXPOSURE / PERSONAL PROTECTION

| EXPOSURE LIMITS: | Component | ACGIH TLV | ACGIH STEL | OSHA PEL | OSHA STEL |
|------------------|--------------------------|---------------------|------------|---------------------|-----------|
| | Methyl Methacrylate Mon. | 50 ppm | 100 ppm | 100 ppm | N/E |
| | Benzoyl Peroxide | 5 mg/m ³ | | 5 mg/m ³ | |
| | N,N-Dimethylaniline | 5 ppm | 10 ppm | 5 ppm (skin) | |

- Engineering Controls:** Use local exhaust as needed.
- 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.
- Skin Protection:** Prevent contact with the skin as much as possible. Butyl rubber gloves should be used for frequent immersion.
Use of solvent-resistant 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:** Use in a well-ventilated room. 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

| | | | |
|-----------------------------------|---|-----------------------------|---|
| Appearance: | "A" - Clear, heavy viscous liquid, "C" - Clear, thin liquid, "B" - White granules | Odor Threshold: | 0.75 ppm: MMA |
| Odor: | "A" - Distinct, "B" - Slight, "C"- Pungent | Evaporation Rate: | > 1.0 (BUAC = 1) |
| pH: | Not Applicable | Flammability: | Category 2 |
| Boiling Point: | 214 °C (417°F) Based on first boiling component: MMA | Flammability Limits: | LEL: 2.1% based on MMA UEL: 12.5% based on MMA |
| Flash Point: | 10.0°C (50 °F) T.C.C. based on MMA | Vapor Pressure: | 40 mm Hg @ 26°C (79°F): MMA |
| Specific Gravity: | "A" - 1.034, "C" - 0.936 @23°C (73°F) | Vapor Density: | "A" > 1.0 (Air = 1) |
| Solubility: | Slight in Water (MMA) | VOC Content : | ≤ 50 g/l mixed |
| Auto-ignition Temperature: | 430°C (806°F): MMA | | |
| Decomposition Temperature: | Not Applicable | | |

SECTION 10 - STABILITY AND REACTIVITY

| | |
|--|--|
| Stability: | Stable, unless heated |
| Hazardous decomposition products: | None in normal use. Oxides of carbon, oxides of nitrogen, hydrocarbons, acrid smoke and gases upon combustion. |
| Conditions to avoid: | Keep away from direct sunlight, heat, sparks, open flame and other ignition sources. |
| Incompatible Materials: | Reducing and oxidizing agents and metal contaminants |

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: Vapors 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

| | | |
|-----------------------------------|---|-----------------------------------|
| Toxicity: | LD₅₀ | LC₅₀ |
| Methyl Methacrylate Monomer (MMA) | Oral: 7900 mg/kg (rat), Dermal: >35000 mg/kg (rabbit) | Inhalation: 3 hrs. 7093 PPM (rat) |
| Benzoyl Peroxide | Oral: 6400 mg/kg (rat) | Oral: 2 mg/l 96 hours (guppy) |
| N,N-Dimethylaniline | Oral: 1410 mg/kg (rat) | Oral: 1770 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 Established | Not Established | Not Established | Not Established | Not Established | Not Established |

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity: None known
Mobility: In normal use, emission of volatile organic compounds (VOC's) to the air takes place, typically at a rate of ≤ 50 g/l
Degradability: Not Established
Bioaccumulation: Not Established

SECTION 13 - WASTE DISPOSAL CONSIDERATIONS

Follow local and national regulations. Consult local disposal expert.

SECTION 14 - TRANSPORT INFORMATION

Proper Shipping Name: Adhesives
Hazard Class: 3
Secondary Risk: None
Identification Number: UN 1133
Packing Group: PG II
Label Required: Class 3 Flammable Liquid
Marine Pollutant: NO

EXCEPTION for Ground Shipping

DOT Limited Quantity: Up to 5L per inner packaging, 30 kg gross weight per package.
Consumer Commodity: Depending on packaging, these quantities may quantities under DOT as "ORM-D" .

TDG INFORMATION

| | |
|---------------------------------|--------------------|
| TDG CLASS: | FLAMMABLE LIQUID 3 |
| SHIPPING NAME: | ADHESIVES |
| UN NUMBER/PACKING GROUP: | UN 1133, PG II |

SECTION 15 - REGULATORY INFORMATION

| | | | |
|---|---|-----------------------------|---|
| Precautionary Label Information: | Highly Flammable, Harmful | Ingredient Listings: | USA TSCA, Europe EINECS, Canada DSL, Australia AICS, Korea ECL/TCCL, Japan MITI (ENCS) |
| Symbols: | F, Xn | | |
| Risk Phrases: | R-11 Highly Flammable R-20 Harmful by inhalation R-21 Harmful if contact with skin R-22 Harmful if swallowed | | R-36/37/38 Irritating to eyes, respiratory system and skin R-43 May cause sensitization by skin contact. |
| Safety Phrases: | 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-51 Use only in well ventilated areas |

SECTION 16 - OTHER INFORMATION

Specification Information:
Department issuing data sheet: IPS, Safety Health & Environmental Affairs All ingredients are compliant with the requirements of the European
E-mail address: <EHSinfo@ipscorp.com> Directive on RoHS (Restriction of Hazardous Substances).
Training necessary: Yes, training in practices and procedures contained in product literature.
Reissue date / reason for reissue: 2/19/2010 / Modified GHS Standard Format
Intended Use of Product: 3-Component, reactive, high strength acrylic based adhesive

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.