

**MATERIAL SAFETY DATA SHEET**



4011 Hyde Park Blvd.  
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JANUARY 2011

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**Fast Acrylic Powder Mounting System**

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**SECTION 1. CHEMICAL PRODUCT/ COMPANY IDENTIFICATION**

**TRADE NAME:** FAST ACRYLIC Hardener, GLASS FILLED ACRYLIC hardener

**CHEMICAL FAMILY:** ISO-BUTYL METHACRYLATE MONOMER COMBUSTIBLE LIQUID

**SECTION 2. COMPOSITION/ INFORMATION ON INGREDIENTS**

<u>INGREDIENT (S)</u>	<u>CAS NO.</u>	<u>%</u>
Iso-Butyl Methacrylate (IBMA)	97-86-9	85-95
Ethyl Methacrylate	97-63-2	5-15

Standard grades contains:

2-500 (ppm) p-METHOXYPHENOL CAS Number 150-76-5

2-500 (ppm) Hydroquinone CSA Number 123-31-9

**SECTION 3. HEALTH IDENTIFICATION**

EMERGENCY OVERVIEW:

Combustible. Hazardous polymerization may occur. Irritant by inhalation, in contact with skin and eye and if swallowed. May cause sensitization by skin contact. Colorless liquid with fruity odor.

<u>ROUTE OF ENTRY</u>	<u>SYMPTOMS/EFFECTS</u>
<b>EYE:</b>	Moderate irritant causing moderate initial pain/
<b>SKIN:</b>	May cause skin irritation and skin sensitization.
<b>INGESTION:</b>	Cause irritation, a burning sensation of the mount, throat and respiratory tract and abdominal pain.
<b>INHALATION:</b>	High concentrations irritant to the respiratory tract and may lead to dizziness, headache and anesthetic effects.
<b>CHRONIC (CANCER) INFORMATION:</b>	None know. Unlikely to present carcinogenic hazard.
<b>TERATOLOGY (BIRTH DEFECT) INFORMATION:</b>	Some evidence of potential developmental toxicity but inadequate information is available ot assess the teratogenic hazard. No adverse effects expected.
<b>REPRODUCTIVE INFORMATION:</b>	No information available but no adverse effects expected.



### SECTION 4. FIRST-AID MEASURES

- INHALATION:** If affected by inhalation of vapor or spray mist, remove to fresh air. If not breathing give artificial respiration, preferably mouth-to-mouth. If breathing difficulty persists or occurs later, consult a physician
- SKIN OR EYE:** In case of eye contact, immediately flush with plenty of water for at least 15 minutes. Call a physician. In case of skin contact, wash with soap and water. If irritation occurs, contact a physician
- INGESTION:** If swallowed, DO NOT INDUCE VOMITING. Immediately give two glasses of water or activated charcoal slurry. Never give anything by mouth to an unconscious person. Call a physician

### SECTION 5. FIRE FIGHTING MEASURES

- FLASH POINT (METHOD):** 42.5-45.5°C (Closed cup)
- APPROX. FLAMMABLE LIMITS:** Lower 1-2%  
Upper 7.4-8  
Flammable liquid. Vapors or gases may travel considerable distance to ignition source and flash back.
- 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 with water spray to prevent pressure build-up. Fight fires from a safe distance or protected areas. Heat may rupture containers.
- UNUSUAL FIRE AND EXPLOSION HAZARDS:** Fine mists or sprays may be flammable at temperatures below the flash point. Sealed containers exposed to elevated temperatures may rupture explosively due to polymerization. Vapors are heavier than air and may travel to ignition source

### SECTION 6. ACCIDENTAL RELEASE MEASURES

- SAFEGUARDS (Personnel):** Note: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean up.
- Evacuate personnel, thoroughly ventilate area, and use self-contained breathing apparatus.
- INITIAL CONTAINMENT:** Remove source of heat, sparks, flame, impact, friction or electricity. Dike spill. Prevent material from entering sewers, waterways, or low areas.
- SPILL CLEAN UP:** Soak up with sand, oil dry or other absorbent, non-



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combustible material. Cleaned-up material is a RCRA Hazardous Waste.

**SECTION 7. HANDLING AND STORAGE**

- HANDLING (Personnel):** Do not breathe vapor or mist. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling.
- HANDLING (Physical Aspects):** Close container after each use. Ground container when pouring. Keep away from heat, sparks and flames.
- STORAGE:**
  - Vapors are uninhibited and may form polymers in vents or flame arresters, resulting in blockage of vents.
  - Keep container in a cool place. Do NOT expose to direct sunlight. Store in a well ventilated place. Keep container tightly closed. Store in accordance with National Fire Protection Association recommendations.
  - Maintain air space inside storage containers. Inhibitor requires air (oxygen) contact to function. Check inhibitor levels after 6 months and return to original level.
- ENGINEERING CONTROLS:**
  - Keep container tightly closed.
  - Observe label precautions.
  - Use ventilation that is adequate to keep employee exposure to airborne concentrations below exposure limits.

**SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

- ENGINEERING CONTROLS:**
  - Keep container tightly closed.
  - Observe label precautions.
  - Use ventilation that is adequate to keep employee exposure to airborne concentrations below exposure limits.
- PERSONAL PROTECTION:**
  - EYE/FACE PROTECTION:** Wear safety glasses. Wear coverall chemical splash goggles and face shield when possibility exists fro eye and face contact due to splashing or spraying material.
  - RESPIRATORS:** A NIOSH/MSHA approved air-purifying respirator with an organic vapor cartridge canister may be permissible under certain limited circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.



PROTECTIVE CLOTHING: Wear impervious clothing to prevent ANY contact with this product, such as gloves, apron, boots, or whole body suit. Nitrile rubber is better than PVC.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>SPECIFIC GRAVITY:</b> 0.896 gr/cc	<b>APPROX. BOIL RANGE:</b> 155°C@760 mm Hg
<b>VAPOR DENSITY:</b> 4.91 @ @15.5°C	<b>PERCENT VOLATILE:</b> 100.0
<b>SOLUBILITY IN WATER:</b> <0.05% @20°C	<b>EVAPORATION RATE:</b> 0.50 (BuAc=1)
<b>VAPOR PRESSURE:</b> 2.4-4 mm/Hg @20°C	<b>FREEZING POINT:</b> -34 to -37 °C
<b>SOLUBILITY OF OTHERS:</b> Miscible with most organic solvents	<b>ODOR:</b> characteristic

## SECTION 10. STABILITY AND REACTIVITY DATA

<b>STABILITY:</b>	Stable
<b>CONDITIONS TO AVOID:</b>	Heat and ignition sources; contamination
<b>HAZARDOUS POLYMERIZATION:</b>	Can occur
<b>CONDITIONS TO AVOID FOR HAZARDOUS POLYMERIZATION:</b>	Excessive heat, inadvertent addition of catalyst
<b>INCOMPATIBILITY (MATERIALS TO AVOID):</b>	Reducing and oxidizing agents. Material has strong solvent properties and can soften paint or rubber
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	CO, CO <sub>2</sub> , smoke

## SECTION 11. TOXICOLOGICAL INFORMATION

<b>ANIAMALS:</b>	Oral LD50: >9,590 mg/kg in rats
<b>INHALATION:</b>	Irritating to respiratory system. High atmospheric concentrations may lead to irritation of the respiratory tract, dizziness, headache and anesthetic effects.
<b>SKIN CONTACT:</b>	May cause sensitization by skin contact. Irritating to skin. Repeated and/or prolonged contact may cause dermatitis.
<b>EYE CONTACT:</b>	Irritating to eyes.

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**INGESTION:** Low oral toxicity but ingestion may cause irritation of the gastrointestinal tract.

**LONG TERM EXPOSURE:** This material has been used for many years with no evidence of adverse effects. There is no evidence of mutagenic potential. Inadequate information available to assess carcinogenic hazard. Some evidence of potential for developmental toxicity but inadequate information is available to assess the iso-butyl methacrylate represents a teratogenic hazard to man. None of these effects are likely to occur in humans provided exposure is maintained at or below the occupational exposure limit.

**SECTION 12. ECOLOGICAL INFORMATION**

**ENVIRONMENTAL FATE AND DISTRIBUTION:** High tonnage material produced in wholly contained systems. Liquid with moderate volatility. Sparingly soluble in water. Moderate potential for bioaccumulation. Predicted to have moderate mobility in soil.

**PERSISTENCE AND DEGRADATION:** Readily biodegradable. 74% in 28 days.

**TOXICITY:** Very toxic to aquatic organisms.  
LC50 (rainbow trout)(96 hr.)(flow thorough) 20 mg/L  
EC50 (Daphnia magna) (48 hr.) >29 mg/L

**EFFECT ON EFFLUENT TREATMENT:** This product is substantially removed in biological treatment processes.

**SECTION 13. DISPOSAL CONSIDERATIONS**

**WASTE DISPOSAL:** Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Do not flush to surface or sanitary sewer system. Incinerate in a facility, which complies with Federal, State and local requirements. Do not incinerate in closed containers.

**SECTION 14. TRANSPORT INFORMATION**

**Shipping Information (DOT)**

**PROPER SHIPPING NAME:** ISOBUTYL METHACRYLATE MONOMER, STABILIZED

**HAZARD CLASS:** 3

**ID No. (UN/NA):** UN2283

**PACKING GROUP:** III

**DOT LABEL(s)** FLAMMABLE LIQUID

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Domestic containers of less than 450 L capacity are not regulated by DOT. International shipments must be labeled as flammable and comply with the UN2283 designation.

**SECTION 15. REGULATIONS**

**U.S. Federal Regulations:**

**TSCA Inventory Status:** Reported/Included

**European Regulations:**

**EINECS:** Isobutyl methacrylate, 202-631-0  
p-methoxyphenol, 205-769-8  
hydroquinone, 204-617-8

**EEC Classification:** FLAMMABLE AND IRRITANT

**Hazard Symbol:** F + Xi

**Risk Phrases:** R10. Flammable  
R36/37/38. Irritating to eyes, respiratory system and skin.  
R43. May cause sensitization by skin contact.  
R50. Very toxic to aquatic organisms.

**Safety Phrases:** S24. Avoid contact with skin.  
S37. Wear suitable gloves  
S61. Avoid release to the environment. Refer to special instructions/Safety Data Sheet.

**Canadian Regulations:**

**DSL:** Included

**WHMIS:** B3: Combustible Liquid.  
D2B: Toxic Material. Skin or Eye Irritant  
F: Dangerously reactive material.

**SECTION 16. OTHER INFORMATION**

**NPCA-HMIS Rating:** Health: 2  
Flammability: 2  
Reactivity: 2

**Additional Information:** NA = Not Applicable  
NE = Not Established



## SECTION 1. CHEMICAL PRODUCT/ COMPANY IDENTIFICATION

**TRADE NAME:** FAST ACRYLIC RESIN POWDER (Transparent)  
**CHEMICAL FAMILY:** POLY ETHYL METHACRYLATE +1% BPO  
**HMS RATING:** HEALTH: 1 FLAMMABILITY: 1 REACTIVITY: 0  
**HAZARD RATING:**  
LEAST: 0 SLIGHT: 1 MODERATE: 2 HIGH: 3 EXTREME: 4

## SECTION 2. COMPOSITION/ INFORMATION ON INGREDIENTS

<u>INGREDIENT (S)</u>	<u>CAS NO.</u>	<u>%</u>
POLY (Ethyl Methacrylate)	9003-42-3	>95
Benzoyl Peroxide	94-36-0	<10

This material is not intended for applications involving elevated temperatures. However, if it is required to be used for processing at elevated temperatures, please contact the supplier for relevant Safety, Health and Environmental information.

## SECTION 3. HEALTH IDENTIFICATION

### EMERGENCY OVERVIEW:

Solid granules. May evolve irritating fumes on processing or overheating.

### POTENTIAL HEALTH EFFECTS:

**EYE:** Dust may cause irritation.  
**SKIN:** Unlikely to cause skin irritation.  
**INGESTION:** Low oral toxicity.  
**INHALATION:** Unlikely to be hazardous but dust or vapors may cause irritation.  
**CHRONIC (CANCER) INFORMATION:** No evidence of adverse effects but adverse effects unlikely.  
**TERATOLOGY (BIRTH DEFECT) INFORMATION:** No information but adverse effects unlikely.  
**REPRODUCTIVE INFORMATION:** No information but adverse effects unlikely.

## SECTION 4. FIRST-AID MEASURES

**INHALATION:** Remove patient from exposure. Obtain medical attention if ill effects

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occur.

- SKIN CONTACT:** Wash skin with soap and water.
- EYE CONTACT:** Remove particles by irrigating with eye wash solution or clean water, holding the eyelids apart. Obtain medical attention.
- INGESTION:** Do not induce vomiting. Wash out mouth with water. Obtain medical attention if ill effects occur.
- FURTHER MEDICAL TREATMENT:** Symptomatic treatment and supportive therapy as indicated.

**SECTION 5. FIRE FIGHTING MEASURES**

- FLASH POINT (METHOD):** 300°C (572°F) (ASTM D1929)  
  
Combustible but not readily ignited. May form explosible dust clouds in air. May decompose if heated about 200 Deg C. Combustion or thermal decomposition will evolve toxic, irritant and flammable vapors.
- INCOMPATIBLE MATERIALS:** None known.
- EXTINGUISHING MEDIA:** Water spray, foam, dry powder or CO2.
- FIRE FIGHTING PROTECTIVE EQUIPMENT:** A self-contained breathing apparatus and full protective clothing should be worn in fire conditions.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

Caution – spillages may be slippery. Sweep up and shovel into waste drums or plastic bags. Wash the spillage area with water.

**SECTION 7. HANDLING AND STORAGE**

- HANDLING (Process Hazards):** Care should be taken to prevent burns from contact with hot material. All polymers degrade to some extent if over heated, an effect which increases with increasing temperature. It is therefore impossible to be precise about which substances may be evolved. However, it is only the minor components which vary substantially. The major components are given in the “STABILITU AND REACTIVITY” section.
- STORAGE:**  
  
Keep containers in a clean, cool and dry area away from heat sources. Natural ventilation is adequate.  
  
Storage Temperature: ambient.  
  
Avoid contact with eyes. Avoid prolonged skin contact. Avoid inhalation of high concentrations of dusts.



**SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

Normal handling: the use of eye protection is recommended. An approved dust mask should be worn if exposure to high levels of dust are likely.

**EXPOSURE GUIDELINES:** Exposure Limits:  
 PEL(OSHA): Particulates (Not Otherwise Classified) 15 mg/m3,  
 8 Hr. TWA, total dust 5 mg/m3, 8 Hr. TWA, respirable dust  
 TLV (ACGIH): None Established

**OTHER APPLICABLE EXPOSURE LIMITS:** Ethyl Methacrylate  
 PEL (OSHA): Non established  
 TLV (ACGIH): Non established  
 PACE recommended: 25 ppm, 8 Hr. TWA

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>SPECIFIC GRAVITY:</b> 1.11 gr/cc	<b>ODOR:</b> typical "methacrylate"
<b>Form:</b> Beads	<b>PERCENT VOLATILE:</b> <1%
<b>SOLUBILITY IN WATER:</b> negligible	

**SECTION 10. STABILITY AND REACTIVITY DATA**

**HAZARDOUS REACTIONS:** None known.  
**HAZARDOUS POLYMERIZATION:** Will not polymerize.  
**HAZARDOUS DECOMPOSITION PRODUCTS:** Ethyl methacrylate.

**SECTION 11. TOXICOLOGICAL INFORMATION**

**INHALATION:** Unlikely to be hazardous by inhalation. High concentrations of dust may be irritant to the upper respiratory tract. High concentrations of vapor from hot operations may be harmful, cause irritation of the respiratory tract, and slight narcotic effects.  
**SKIN CONTACT:** Unlikely to cause skin irritation.  
**EYE CONTACT:** Dust may cause irritation.  
**INGESTION:** Low oral toxicity.  
**LONG TERM EXPOSURE:** This material has been in use for many years with no evidence of adverse effects.

**SECTION 12. ECOLOGICAL INFORMATION**

**ENVIRONMENTAL FATE AND** High tonnage material produced in wholly contained systems. Liquid with moderate volatility. Sparingly soluble in water. Moderate potential

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**DISTRIBUTION:** for bioaccumulation. Predicted to have moderate mobility in soil.

**PERSISTENCE AND DEGRADATION:** This product is non-biodegradable in soil. There is no evidence of degradation in soil and water.

**TOXICITY:** The product is predicted to have low toxicity to aquatic organisms.

**EFFECT ON EFFLUENT TREATMENT:** This product is anticipated to be poorly removed in biological treatment processes.

**SECTION 13. DISPOSAL CONSIDERATIONS**

**WASTE DISPOSAL:** Waste is considered to be non-hazardous. Clean scrap may be reprocessed, Incineration may be used to recover energy value. May be disposed of by landfill in accordance with local regulations. Certain packages are returnable. Please consult your local office for further details. Ensure that all packaging is disposed of safely.

**SECTION 14. TRANSPORT INFORMATION**

**Shipping Information (DOT)**

DOT: Not regulated.

**SECTION 15. REGULATORY INFORMATION**

Not classified as hazardous to users or for transport.

**U.S. Federal Regulations:** Reported/Included  
**TSCA Inventory Status:**

**SECTION 313 SUPPLIER NOTIFICATION** This product contains no known toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community right-To-Know Act of 1986 and of 40 CFR 372.

**Canadian Regulations:**  
**DSL regulatory status:** Included

**European Regulations:** Polymer. Monomers included, 202-597-5 (ethyl methacrylate).  
**EINECS:**

**SECTION 16. OTHER INFORMATION**

**Additional Information:** NA = Not Applicable  
NE = Not Established