

Freeman MA 8310 Methacrylate Adhesive

Section 1 Identification

**Product identifiers**

Product name: Freeman MA 8310 Methacrylate Adhesive

**Relevant identified uses of the substance or mixture and uses advised against**

Identified uses: Two-part high strength acrylic adhesive for Industrial / Professional Use Only

**Details of the supplier of the Safety Data Sheet**

Freeman Manufacturing & Supply Company  
1101 Moore Road, Avon, OH 44011  
Telephone (440) 934-1902  
Email [contactus@freemansupply.com](mailto:contactus@freemansupply.com)

**24 Hour Emergency Telephone Number:**  
**CHEMTREC (800) 424-9300**

Section 2 Hazards Identification

**GHS Classification in accordance with 29 CFR 1910.1200 (OSHA HCS)**

Flammable Liquids – Category 2  
Acute Oral Toxicity, Category 4  
Skin Irritation, Category 2  
Eye Irritation, Category 2A  
Skin Sensitization, Category 1  
Specific Target Organ Toxicity (Single Exposure) (Respiratory tract irritation) – Category 3  
Environmental, Acute, Category 3  
Environmental, Chronic, Category 4

**GHS Label Elements**



Danger

**Hazard Statements**

H225 – Highly flammable liquid and vapor  
H302 – Harmful if swallowed  
H315 – Causes skin irritation  
H319 – Causes serious eye irritation  
H317 – May cause an allergic skin reaction  
H335 – May cause a respiratory irritation  
H402 – Harmful to aquatic life  
H413 – May cause long lasting harmful effects to aquatic life

**Precautionary Statements**

**Prevention:** P210 – Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P261 – Avoid breathing dust/fume/mist/vapors/spray.  
P264 – Wash hands (or other affected skin surfaces) thoroughly after handling.  
P270 – Do not eat, drink, or smoke when using this product.  
P273 – Avoid release to the environment  
P280 – Wear protective gloves/protective clothing/eye protection/face protection.  
**Response:** P370/P378 – In case of fire: Use dry chemical or CO2 to extinguish  
P305/P351/P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P301/P312 – IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.  
P302/P352 – IF ON SKIN: Wash with plenty of soap and water.

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**Section 2 Hazards Identification**

P333/P313 – If skin irritation or rash occurs get medical advice/attention.

**Storage:** P403 – Store in a well-ventilated place.

P410 – Protect from sunlight.

P411 – Store at temperatures not exceeding 25°C (75°F).

**Disposal:** P501 – Dispose of contents/containers in accordance with local/regional/national/international regulations.

**Section 3 Composition/Information on Ingredients**

**Adhesive**

Ingredient Name	CAS Number	Weight (%)
Methyl Methacrylate Monomer	80-62-6	40 - 70
Methacrylic Acid	79-41-4	1 - 5
Non-Hazardous Ingredients	Not Applicable	15 - 35

**Activator**

Ingredient Name	CAS Number	Weight (%)
Methyl Methacrylate Monomer	80-62-6	40 - 70
Non-Hazardous Ingredients	Not Applicable	15 - 35

**Section 4 First Aid Measures**

- Skin:** Remove contaminated clothing. Flush skin with water, then wash affected areas with soap and water. If irritation develops, seek medical attention. Dispose of contaminated clothing, or wash clothing before reuse.
- Eye:** Flush eyes with water for 15 minutes. Remove contact lenses prior to water flush if possible. Seek immediate medical attention.
- Respiratory:** Remove patient to fresh air. If patient is having difficulty breathing, seek immediate medical attention. If not breathing, clear airway and start mouth-to-mouth artificial respiration (or use bag-mask respirator). Seek immediate medical attention.
- Ingestion:** Give patient water to dilute material in stomach. DO NOT induce vomiting. Seek immediate medical attention. If vomiting occurs naturally, have person lean forward to reduce risk of aspiration. DO NOT give anything by mouth to an unconscious person.

**Section 5 Fire-Fighting Measures**

**Suitable Extinguishing Media**

In case of fire, water spray, fog, dry chemical or CO<sub>2</sub>, or alcohol resistant foam.

**Specific Hazards Arising from the Chemical**

Sealed containers of adhesive may rupture violently at elevated temperatures due to polymerization. Organic peroxides can decompose violently if heated while confined. Fine mists may be explosive below the flash point, 10°C (50°F).

**Hazardous Decomposition Products**

Decomposition products may include: Carbon dioxide, carbon monoxide, Methyl Methacrylate, and various hydrocarbons.

**Special Protective Equipment and Precautions for Firefighters**

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, and rubber boots. In enclosed spaces, use self-contained breathing apparatus (SCBA).

**Flammability Classification:** Class 1B

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**Section 6 Accidental Release Measures**

**Personal Precautions, Protective Equipment, and Emergency Procedures**

Keep unnecessary personnel away. Avoid contact with skin or inhalation of spillage, dust or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Eliminate all sources of ignition. For large spill or leak wear self-contained breathing apparatus (SCBA) and appropriate PPE.

**Environmental Precautions**

Avoid releases to the environment. Keep out of sewers and drains.

**Clean-Up Methods and Materials**

Absorb with an inert material and place in an appropriate container for disposal.

**Section 7 Handling and Storage**

**Handling Precautions**

Avoid breathing vapors. Use in a well-ventilated area. Wear rubber gloves (nitrile or butyl) and chemical resistant apron. Wear chemical splash goggles. Do not reuse empty containers.

**Storage Precautions**

Store in a cool, dry, well-ventilated area at temperatures less than 74°F (25°C). Storage above 212°F (100°C) may cause explosive decomposition. Avoid storage in direct sunlight. Keep containers closed when not in use. Keep away from heat sources, sparks, and open flames.

**Section 8 Exposure Controls/Personal Protection**

**Components with workplace control parameters**

Material Name	OSHA PEL	ACGIH TLV
Methacrylic Acid (CAS 79-41-4)	Not established	TWA 20 ppm
Methyl Methacrylate (CAS 80-62-6)	TWA 100 ppm	TWA 50 ppm, STEL 100 ppm

**Engineering Controls**

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

**Personal Protective Equipment**

**Eye / Face Protection:** Wear safety glasses with side shields or splash goggles.

**Skin Protection:** Wear chemical resistant gloves (nitrile or butyl) and chemical resistant apron

**Respiratory Protection:** In case of insufficient ventilation, wear an approved (NIOSH) respirator with organic vapor cartridge and dust/mist pre-filter.

**Safety Stations**

Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available.

**General Hygienic Practices**

Avoid breathing vapor or mist. Wash thoroughly after handling materials. Avoid contamination of food, beverages, or smoking. Clean contaminated clothing thoroughly before reuse.

## Freeman MA 8310 Methacrylate Adhesive

### Section 9 Physical and Chemical Properties

	<b>Adhesive</b>	<b>Activator</b>
<b>Appearance</b>	Colored (various) paste	Colored (various) liquid
<b>Odor</b>	Mild, sweet	Mild, sweet
<b>Odor Threshold</b>	No data available	No data available
<b>pH</b>	4.0 – 6.0	4.0 – 6.0
<b>Freezing Point</b>	-48°C (-54°F)	-48°C (-54°F)
<b>Initial Boiling Point</b>	100°C (212°F)	100°C (212°F)
<b>Flash Point (Closed Cup)</b>	10°C (50°F)	10°C (50°F)
<b>Evaporation Rate</b>	3	3
<b>Flammability</b>	Class 1B	Class 1 B
<b>Lower Explosive Limit (LEL)</b>	1.7%	1.7%
<b>Upper Explosive Limit (UEL)</b>	12.5%	12.5%
<b>Vapor Pressure</b>	28 mm Hg at 68°F	28 mm Hg at 68°F
<b>Vapor Density</b>	3.5	3.5
<b>Relative Density</b>	7.7 – 8.8 lb./gal	7.7 – 8.8 lb./gal
<b>Specific Gravity</b>	0.93 – 1.05	0.93 – 1.05
<b>Water Solubility</b>	No data available	No data available
<b>Coefficient: n-octanol/water</b>	No data available	No data available
<b>Auto-Ignition Temperature</b>	421°C (790°F)	421°C (790°F)
<b>Decomposition Temperature</b>	No data available	No data available
<b>Viscosity</b>	20,000 to 200,000 cP	20,000 to 200,000 cP
<b>Percent Volatile</b>	No data available	No data available
<b>VOC</b>	< 50 g/L of mixed product	< 50 g/L of mixed product

### Section 10 Stability and Reactivity

<b>Reactivity</b>	Product is stable under normal conditions.
<b>Chemical Stability</b>	The product is stable.
<b>Possibility of Hazardous Reactions</b>	Polymerization may occur under certain conditions
<b>Conditions to Avoid</b>	Avoid extreme temperatures, open flames, sparks, and direct sunlight.
<b>Materials to Avoid</b>	Incompatible with strong oxidizing materials, strong acids, strong alkalis, oxygen free atmospheres, inert gas blanketing, and free radical initiators.

### Section 11 Toxicological Information

**Route of Entry:** Eye contact, skin contact, inhalation, and ingestion.

**Target Organs:** Skin, eyes, respiratory tract, digestive tract, liver, kidney, olfactory and Central Nervous System (CNS).

**Skin Contact**

May cause irritation of the skin. Prolonged exposure may cause sensitization. Preexisting skin conditions may be aggravated by exposure to this material.

**Eye Contact**

May cause irritation and/or sensitization.

**Respiratory Contact**

Respiratory tract irritant. Prolonged exposure may result in dizziness, nausea, headache, and anesthetic effects. May cause sensitization. Preexisting respiratory conditions may be aggravated by exposure to this product. May cause CNS depression.

**Ingestion**

Not an expected route of entry. If ingested it may cause irritation to the gastrointestinal tract.

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**Section 11 Toxicological Information**

**Acute Toxicity**

Methyl Methacrylate (CAS 80-62-6)	LC50 = 7093 ppm (4 hour inhalation, rat) LD50 = 7940 mg/kg (oral, rat) LD50 > 7550 mg/kg (dermal, rabbit)
Methacrylic Acid (CAS 79-41-4)	LC50 = 7100 mg/m3 (4 hour inhalation, rat) LD50 > 7550 mg/kg (oral, rat) LD50 = 1600 mg/kg (oral, mouse) LD50 > 500 mg/kg (dermal, rabbit)

**Chronic Toxicity**

This product has not been tested. No additional information.

**Respiratory or Skin Sensitization**

No data available

**Germ Cell Mutagenicity**

Classifiable as "none" for human

**Carcinogenicity**

Not classified for human

**Reproductive Toxicity**

No data available

**Specific Target Organ Toxicity (STOT)**

- Single Exposure	No data available
- Repeated Exposure	No data available

**Aspiration Hazard**

No data available

**Section 12 Ecological Information**

**Ecotoxicity**

This product contains components that may be toxic to aquatic organisms and may cause long term adverse effects in an aquatic environment.

**Persistence and Degradability**

Not Available.

**Bioaccumulative Potential**

This product contains components with the potential to bio-accumulate.

**Mobility in Soil**

Not Available.

**Other Adverse Effects**

Not Available.

**Section 13 Disposal Considerations**

**Disposal Methods:**

**Adhesive:** Adhesive is considered Hazardous Waste Product per RCRA 40 CFR 261 and is classed as D001. Spilled, contaminated, or waste material should be put into a suitable container and handled according to Federal, State, and local regulations. Contact a qualified waste management company for assistance.

**Activator:** Not a hazardous waste product (RCRA 50 CFR 261). May be disposed of by landfill or incineration. Dispose of in accordance with Federal, State, and local regulations.

**DANGER!**

Rags, steel wool, and waste soaked with this product may spontaneously catch fire if improperly discarded or stored. Waste should be immediately placed in a sealed water filled container.

**Section 14 Transport Information**

**DOT Classification**

UN/NA Number	UN1133
Proper Shipping Name	Adhesives, Flammable Liquid
Class	3
Packing Group	II

**Limited Quantity**

Yes

**Marine Pollutant**

No information available

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**Section 14 Transport Information continued**

**Special Provision for Transport** 1 Liter (0.3 gallon) or less may use Limited Quantity exceptions (49 CFR 172.102 & 49 CFR 173.150 (a) (2)).

**Section 15 Regulatory Information**

**Inventories**

**DSL (Canada Domestic Substance List):** All components of this product are on the DSL or are exempt.

**EINECS:** Not Available.

**WHMIS:** B2, C, D2B

**TSCA (Toxic Substances Control Act):** All components of this product are on the TSCA Inventory or exempt

**U.S. Federal Regulations**

**SARA 302 (EHS) TPQ:** Not regulated

**SARA 304 (EHS) RQ:** None

**SARA 311/312 Chemical:** See Section 2

**SARA 313 (TRI reporting)**

Chemical (& CAS Number)	SARA 313 <i>de minimis</i>	CERCLA RQ
Methyl Methacrylate (CAS 80-62-6)	1.0	1000 lb

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPS) List:** Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):** Not regulated.

**California Proposition 65**

This product is not known to contain any chemicals known to the State of California to cause cancer, birth defects, or reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**Section 16 Other Information**

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Issue Date: October 17, 2022