G.J. CHEMICAL COMPANY, INC. SAFETY DATA SHEET

1. PRODUCT IDENTIFIER

1.1 PRODUCT NAME: Glacial Methacrylic Acid, Inhibited

PRODUCT NUMBERS: **192900 – Methacrylic Acid 200ppm - MEHQ**
193100 – Methacrylic Acid 180-275ppm - MEHQ
193101 – Methacrylic Acid off spec 180-275ppm - MEHQ
193105 – Methacrylic Acid 225-275ppm - MEHQ
193200 – Glacial Methacrylic Acid 180-275ppm - MEHQ
193300 – Glacial Methacrylic Acid 180-275ppm - MEHQ

TRADE NAMES/SYNONYMS: Methacrylic Acid, MAA

CAS-No: 79-41-4 **CHEMICAL FAMILY: ORGANIC ACID**

1.2 RELAVENT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST:
Identified uses
Industrial uses: Manufacture of substance, Formulation and (re) packaging of substances and mixtures, Polymer Processing, Use as an intermediate, Use in polymer production, used in wet processes.
Consumer uses: Used in dry processes, Formulation & (Re) Packaging of substances and mixtures professional.
USES ADVISED AGAINST: No information available

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET
Company: G.J. CHEMICAL CO., INC.
Address: 40 VERONICA AVENUE
SOMERSET, NJ 08873
Telephone: 1-973-589-1450
Fax: 1-973-589-3072

1.4 Emergency Telephone Number
Emergency Phone: 1-800-424-9300 (CHEMTREC)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29CFR 1910 (OSHA HCS)

Flammable liquids (Category 4), H227
Acute toxicity, Oral (Category 4), H302
Acute toxicity, Inhalation (Category 4), H332
Acute toxicity, Dermal (Category 3), H311
Skin corrosion (Category 1), H314
Serious eye damage (Category 1), H318
Specific target organ toxicity - single exposure (Category 3), Respiratory System, H335
Acute aquatic toxicity (Category 3), H402

2.2 GHS Label elements, including precautionary statements

Pictogram

GHS06 GHS05 GHS09

Signal word: DANGER

Hazard statement(s)
H227 Combustible liquid
H302 + H332Harmful if swallowed or if inhaled
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
H402 Harmful to aquatic life.

Precautionary statement(s)
Prevention:
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you
feel unwell. Rinse mouth.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated

clothing. Rinse skin with water/ shower.
P304 + P340 + P310 IF INHALED: Remove victim to fresh air and keep at rest in a position
comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove
contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
P362 Take off contaminated clothing and wash clothing before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for
extinction.
Storage:
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS:
Stench.
Rapidly absorbed through skin.

3. INGREDIENTS

3.1 SUBSTANCE

Ingredient	CAS No.	% by WT. Range	CLASSIFICATION
Methacrylic Acid EC-No.201-204-4 Index-No.607-088-00-5 Reg.-No. 01-2119463884-26-XXXX	79-41-4	99.5-99.9	Flammable liquids (Category 4), H227 Acute toxicity, Oral (Category 4), H302 Acute toxicity, Inhalation (Category 4), H332 Acute toxicity, Dermal (Category 3), H311 Skin corrosion (Category 1), H314 Serious eye damage (Category 1), H318 STOT-SE (Category 3) Respiratory system, H335 Acute aquatic toxicity (Category 3), H402
Monomethyl Ether of Hydroquinone (MEHQ) (Mequinol) EC-No. 205-769-8 Index-No.604-044-00-7 Reg.-No. 01-2119541813-40-XXXX	150-76-5	180-275PPM	Acute toxicity, Oral (Category 4), H302 Eye irritation (Category 2A), H318 Acute aquatic toxicity (Category 3), H402 Chronic aquatic toxicity (Category 3), H411

3.2 MIXTURE: Not applicable.

4. FIRST-AID MEASURES

General Advice: If potential for exposure exists, refer to Section 8 for specific personal protective equipment. First Aid responders should pay attention to self-protection and use the recommended protective clothing.

4.1 DESCRIPTION OF FIRST AID MEASURES

INHALATION: Methacrylic Acid, Glacial Methacrylic Acid
****FIRST AID-* Remove from exposure to fresh air, restore breathing use oxygen if needed. Keep warm and quiet. Immediately notify a physician.**

EYE CONTACT (Splash): Methacrylic Acid, Glacial Methacrylic Acid
****FIRST AID-* Immediately flush eyes with water for 15 minutes. Hold eyelids open for complete irrigation. Remove contact lenses, if worn, after initial flush. Immediately take to a physician.**

SKIN CONTACT (Splash):Methacrylic Acid, Glacial Methacrylic Acid
****FIRST AID-* Wash affected area with soap and large amounts of water. Remove contaminated clothing. Consult a physician if irritation persists.**

INGESTION: Methacrylic Acid, Glacial Methacrylic Acid
****FIRST AID-* Do NOT induce vomiting. Have victim drink 8-10 ounces of water to dilute material in stomach. Never give anything by mouth to an unconscious person. Consult a physician or poison control center, treat symptomatically.**

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:
INGESTION: Can severely irritate mouth, throat, and stomach.
EYE CONTACT: Corrosive; Severe burns and possible permanent damage;
INHALATION: Corrosive; Irritation of the respiratory tract or acute nervous system depression characterized by headache, dizziness, staggering gait, confusion, unconsciousness or coma.
SKIN CONTACT: Corrosive; Can cause burns resulting in permanent damage, Can be absorbed through skin;

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED: This material will have corrosive effects in which case it may not be advisable to induce vomiting. Acute effects can include mucosal damage and severe laryngeal edema associated with corrosive agents.

5. FIRE FIGHTING MEASURES

Flash Point: 67°C (153°F) TCC **LEL %:1.6**
Auto-ignition Temp: 400°C (752°F) **UEL %: 8.7**
UNIFORM FIRE CODE: Combustible Class IIIA

5.1 EXTINGUISHING MEDIA:

Suitable extinguishing media: Foam--> x CO2--> x Dry Chemical--> x Water-fog--> x Other-->
Unsuitable extinguishing media: Do not use waterjet.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

DANGEROUS FIRE HAZARD WHEN EXPOSED TO HEAT OR FLAME. VAPORS CAN TRAVEL TO A SOURCE OF IGNITION AND FLASH BACK. HEAT CAN CAUSE POLYMERIZATION. HEATED CONTAINERS CAN EXPLODE.
Keep containers tightly closed. Combustible liquid; isolate from all sources of ignition. Closed containers may explode when exposed to extreme heat. Containers that rupture explosively, due to polymerization, may auto-ignite Rapid uncontrolled polymerization can cause explosion.

COMBUSTION PRODUCTS: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, carbon oxides and other unidentified organic compounds evolve when this material undergoes combustion.

CONDITIONS OF FLAMMABILITY: Combustible in the presence of a source of ignition, when the temperature is above the flash point.

COMBUSTION PRODUCTS: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, carbon oxides and other unidentified organic compounds evolve when this material undergoes combustion.

5.3 ADVICE FOR FIREFIGHTERS: EXPLOSION HAZARD. Shut off source. Water fog may be used to cool closed containers to prevent pressure build up and possible auto ignition or explosion when exposed to extreme heat. Fight advanced fires from a protected location. Wear self-contained breathing apparatus and turn out gear for confined spaces and where there is exposure to vapors. isolate from all sources of ignition.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: This material is corrosive; Eliminate ignition sources in the vicinity of the spill or released vapor. Immediately evacuate all nonessential people. Verify that responders are properly trained and wearing appropriate respiratory equipment and fire resistant protective clothing during cleanup operations.

6.2 ENVIRONMENTAL PRECAUTIONS:
Keep out of water sources and sewers. Do not flush into surface water or sanitary sewer system

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:
Methods for cleanup and containment:
Use explosion proof equipment. Shut off valves, contain spill, keep out of water sources and sewers, for smaller spills add non-flammable absorbent such as clay or silica in spill area. If an odor or acidity problem exists, add lime or sodium bicarbonate. Place saturated absorbent in an approved container for disposal. For large spills use foam on spill to minimize vapors clean up by vacuuming then using non-flammable absorbent.
Methods for disposal:
Remove contaminated soil to remove contaminated trace residues. Place all saturated absorbent, using non-sparking tools, in an approved container for disposal. Flush with water to remove trace reside. Minimize breathing vapors and skin contact, ventilate confined areas, open all windows and doors, assure conformity with applicable government regulations. Keep all nonessential people away. Caution: Spontaneous polymerization can occur if material is released or mixed with incompatibles.

6.4 REFERENCE TO OTHER SECTIONS: See Section 8 and 13.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING: This material is corrosive.
Product Freezes at 15°C/ 59°F improper thawing can result in violent polymerization. Thaw frozen drums by placing them in a heated room up to 40°C/104°F for 48 hours. Do not remove any material if stock is frozen or partially frozen. Mix during and after thawing to properly distribute inhibitor. Never use steam or electric heating bands.
Avoid work practices that may release volatile components in the atmosphere. Avoid contaminating soil or releasing material into sewage and drainage systems. Use non-sparking tools to open or close containers. Do not take internally. Avoid prolonged or repeated contact with skin, eyes, and clothing. Avoid breathing vapors in top of shipping container. Use with adequate ventilation. Avoid work practices that may release volatile components in the atmosphere. Avoid contaminating soil or releasing material into sewage and drainage systems. Use non-sparking tools to open or close containers.

Advice on general occupational hygiene:
Wash hands before breaks and after work. Keep away from food, drink and animal feeding stuffs. When using do not smoke.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:
Maintain contact with atmosphere of 5-21% oxygen. Do not use inert atmosphere as blanket. Under proper storage conditions a storage stability of 1 year is expected at ambient temperature. Store in closed containers away from direct sunlight. To prevent hazardous polymerization store containers in a well ventilated area at product temperatures between 59°F and 77°F. Drums of Methacrylic acid should not be stored for periods exceeding one year. If product solidifies, melt only in a temperature controlled environment. As soon as the product is thawed, normal storage temperatures (59 to 77°F) should be established. Never use steam or electrical heating devices (e.g. tapes, mantles, jackets) to thaw this product. Minor deviations (7°C/13°F) above the recommended temperature are acceptable for short periods of time (one week) for material in transit.
Store large quantities only in buildings designed to comply with OSHA 1910.106. Avoid storage under an oxygen free atmosphere. An air space is required above the liquid in all containers.
Keep containers tight and upright to prevent leakage. Do not store with incompatible materials. Keep containers closed when not in use. Keep away from direct sunlight.
Storage Stability/Storage Temperature Range: 18-40°C
Storage Class: (TRGS 510): 6.1C Combustible, acute toxic Cat. 3/toxic compounds or compounds causing chronic effects.

STATIC HAZARD> Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not be sufficient. For more information refer to OSHA Standard 29CFR 1910.106 "Flammable and Combustible Liquids" and National Fire Protection Association (NFPA 77) "Recommended Practice on Static Electricity".

CONTAINER WARNINGS> Containers should be Bonded and Grounded when pouring. Avoid free fall of liquid in excess of a few inches. Empty containers release residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, or expose such containers to heat, sparks, static electricity or other sources of ignition. Do not attempt to clean. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum re-conditioner.

7.3 SPECIFIC END USES: Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROL (PERSONAL PROTECTION)

8.1 CONTROL PARAMETERS:

Ingredient	CAS No.	% by WT. Range	Exposure Limits
Methacrylic Acid	79-41-4 EC-No.201-204-4	99.5-99.9	20ppm TWA (ACGIH) 20ppm TWA (NIOSH) 70mg/m3

Index-No.607-088-00-5		20ppm TWA (OSHA)
Reg.-No. 01-2119463884-26-XXXX		
Monomethyl Ether 150-76-5	180-275ppm	5mg/m3
of Hydroquinone EC-No. 205-769-8		
Index-No.604-044-00-7		
Reg.-No. 01-2119541813-40-XXXX		
(MEHQ) (Mequinol)		

Key: (PEL) = Permissible Exposure Limit OSHA
(TLV) = Threshold Limit Value OSHA & ACGIH
(STEL) = Short Term Exposure Limit ACGIH
(WEEL) = USA. Workplace Environmental Exposure Levels
(TWA) = Time Weighted Average
CAS = Chemical Abstracts Registry Number
IDLH = Immediate Danger to Life and Health
N.E. =None Established

8.2 EXPOSURE CONTROLS

EXPOSURE GUIDELINES > Consider the potential hazards of this material (Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended.

ENGINEERING CONTROLS > Provide general dilution or local exhaust ventilation in volume and pattern to keep concentrations within permitted exposure limits. All areas should be ventilated in accordance with OSHA Regulation 29 CFR Part 1910. Explosion proof motors should be used in mechanical ventilation. Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

RESPIRATORY PROTECTION > For vapor concentrations 1 to 10 times ACGIH TWA an air purifying NIOSH/MSHA or EN166EU Approved respirator with full face-piece and organic vapor cartridges. For concentrations over 10 times ACGIH TWA, in confined areas, and/or where vapor concentrations are unknown use an approved positive pressure full face-piece supplied air respirator.

BODY CLOTHING> Use chemical resistant apron or other impervious clothing. Remove and wash contaminated clothing before reuse.

SKIN PROTECTION> Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product.
Full contact Material: butyl-rubber;
Minimum layer thickness: 0.3 mm
Break through time: 480 min

Splash contact Material: Nitrile rubber.
Minimum layer thickness: 0.2 mm
Break through time: 38 min

Gloves should be removed and replaced immediately if there is any indication of degradation or breakthrough.

EYE/FACE PROTECTION > Use safety eyewear with splash guards or face shield. Shower and eyewash should be easily accessible to the work area.

⑨. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

Glacial Methacrylic Acid 79-41-4
Appearance----------> Clear mobile liquid
Color----------> Strong Pungent Odor
Odor----------> Pungent
Odor Threshold----------> N/A
pH----------> No Data Available
Molecular Weight----------> 86.09
Melting Point----------> 60.8°F
Boiling Range (°F)----------> 325
Specific Gravity----------> 1.015@25°C
Vapor Pressure----------> 1.0mmHg20°C
Vapor Density (air=1)----------> 2.97
Water Solubility----------> Complete
Partition Coefficient m-Octanol/Water-> log Pow 0.93
Evaporation Rate (Butyl Acetate=1)-----> No Data Available
Flash Point----------> 171°F
Upper Flammability Limit----------> 1.6% (V)
Lower Flammability Limit----------> 8.7% (V)
Auto-Ignition Temperature----------> No Data Available
Decomposition Temperature----------> No Data Available
Viscosity----------> No Data Available
Explosive Properties----------> No Data Available
Oxidizing Properties----------> No Data Available

9.2 OTHER INFORMATION----------> No Data Available

⑩. STABILITY AND REACTIVITY INFORMATION

10.1 REACTIVITY: Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical.

10.2 CHEMICAL STABILITY: Unstable ( ) Stable (X)
This material is considered stable under specified conditions of storage, shipment and use. See Section VII for specified conditions.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS: Inhibitor is added to this product to prevent polymerization. However this material can undergo hazardous polymerization. Excessive aging, heat, contamination with polymerization catalysts, oxygen free atmosphere, inhibitor depletion or ultraviolet light (sunlight) may cause polymerization. Freezing followed by

improper thawing and inhibitor redistribution may cause hazardous polymerization. An uncontrolled polymerization may produce a rapid release of energy with the potential for an explosion of unvented closed containers. Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical.

HAZARDOUS POLYMERIZATION: May occur ( ) Will not occur (X)
Uncontrolled polymerization can cause rapid evolution of heat and increased pressure which can result in violent rupture of storage vessels or containers

Risk of explosion with: furfuryl alcohol hydrochloric acid Violent reactions possible with:
Amines
azides
Aldehydes
Acid anhydrides
Acid chlorides
alkaline earth
hydroxides
alkali hydroxides
bases
Ether
Heavy metal salts
Heavy metals
Ketones
metallic hydroxides
mineral acids
Nitric acid
Nitro compounds
nitrates
nitrites
Reducing agents
Strong oxidizing agents
Strong acids
Violent polymerization may be caused by: iron/iron-containing compounds
sodium hydrogensulfite
sodium thiosulphate
peroxi compounds
Peroxides
persulfates
Impurities
hydrogen peroxide

10.4 CONDITIONS TO AVOID: --> Heat, Sparks, Pilot Lights, Static Electricity, and Open Flame. Extremes of temperature and direct sunlight. If product solidifies (freezes) the inhibitor separates from the Methacrylic acid. Thaw slowly without direct heat.

10.5 INCOMPATIBLE MATERIALS --> --> Strong oxidants such as liquid chlorine, oxygen, sodium hypochlorite, inorganic acids e.g. hydrochloric acid hydrogen peroxide, aldehydes, ethers and azides. Hazardous polymerization

may occur in the presence of radical forming substances (peroxides), reducing substances, and/or heavy metal ions.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS --> Fumes, Smoke, Carbon Monoxide, Aldehydes and other decomposition products where combustion is not complete.

11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

Routes of Entry: Inhalation--> x Skin--> x Ingestion--> x Eye--> x

ACUTE HEALTH EFFECTS:

Effects of overexposure:

Eye> Corrosive; Severe burns and possible permanent damage;

Skin> Corrosive; Can cause burns resulting in permanent damage, Can be absorbed through skin;

Inhalation> Corrosive; Irritation of the respiratory tract or acute nervous system depression characterized by headache, dizziness, staggering gait, confusion, unconsciousness or coma.

Ingestion> Can severely irritate mouth, throat, and stomach.

Chronic:

Medical Conditions Aggravated by Exposure> Skin contact may aggravate an existing dermatitis.

ACUTE TOXICITY:

The effects of overexposure shown in Section II are based on acute toxicity profiles. Typical values are:

Ingredient	Oral LD50 (Rat)	Skin LD50 (Rabbit)	Inhalation LC50
Methacrylic acid	1320mg/kg (OECD401)	500-1000mg/kg (ECHA)	7.1mg/L/4hr (OECD403)
Methyl Ether of Hydroquinone	1370mg/kg	2000mg/kg	

(MEHQ) (Mequinol)| | | |

Skin corrosion/irritation:
Causes severe burns. (OECD 404)

Serious eye damage/eye irritation:
Corrosive (OECD 405)

MUTAGENIC EFFECTS: Germ cell mutagenicity Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: (OECD Test Guideline 471) Result: negative

CARCINOGEN STATUS:
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

REPRODUCTIVE TOXICITY: No data available.

Specific target organ toxicity (STOT-SE)- single exposure (Globally Harmonized System) May cause respiratory irritation.

Specific target organ toxicity (STOT-RE)- repeated exposure (Globally Harmonized System) Respiratory effects.

Aspiration hazard- No data available

Additional Information
RTECS: OZ2975000
Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

ECOLOGY - Water

DANGEROUS TO AQUATIC LIFE IN HIGH CONCENTRATIONS
May be dangerous if it enters water intakes.
Notify local health and pollution control officials.
Notify operators of nearby water intakes.

12.1 AQUATIC TOXICITY:
FISH - LC50 - Oncorhynchus mykiss (rainbow trout) - 85 mg/l - 96 hr (US-EPA)
ALGAE - IC50 - Pseudokirchneriella subcapitata (green algae) - 0.59 mg/l - 96 hr (OECD 201)
EC50- Pseudokirchneriella subcapitata (green algae) – 45mg/l – 72 hr (OECD 201)
INVERTEBRATES - EC50- Invertebrates (Daphnia magna) 100 to 180mg/L – 24hr (US-EPA)
BACTERIA – EC10 Pseudomonas putida - 100 mg/l - 16.5 h (DIN 38412)
The acute effect of this material is very toxic to aquatic organisms.

12.2 PERSISTANCE AND DEGRADABILITY:
Based on DOC reduction >95% readily biodegradable. Based on BOD of the Theoretical OD 86% - 28 days Method OECD Test Guideline 301D - Readily Biodegradable

12.3 BIOACCUMULATIVE POTENTIAL: Octanol/Water Coefficient---------> .93

12.4 MOBILITY IN SOIL: Potential for mobility in soil is very high.
Partition coefficient (Koc): 15

12.5 RESULTS OF PBT AND vPvB: This substance/mixture contains no compounds to be either persistent, bio-accumulative and toxic (PBT), or very persistent and very bio-accumulative (vPvB) at levels of 0.1% or higher.

12.6 OTHER ADVERSE EFFECTS: Methacrylic Acid; This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS: Hazard characteristic and regulatory waste stream classification can change with product use. Accordingly it is the responsibility of the user to determine the proper storage, transportation, treatment, and or disposal methodologies for spent materials and residues at time of disposition. Dispose in accordance with all applicable disposal regulations. Incinerate under controlled conditions in a permitted facility.

CONTAMINATED PACKAGING: Dispose of as unused product.

14. TRANSPORT INFORMATION

Land Transport (DOT)
14.1 USDOT ID Number----------> UN2531
14.2 USDOT Shipping Name----------> Methacrylic Acid,Inhibited
14.3 USDOT Hazard Classification-------> 8 (Corrosive Liquid)
USDOT Label Codes----------> 8 (Corrosive Liquid)

14.4 USDOT Package Code----------> II
14.5 Environmental hazard----------> None
14.6 Special precautions for user--------> None
Emergency Response Guide--------> 153P

Sea Transport (IMDG)
14.1 ID Number----------> UN2531
14.2 Proper shipping name----------> METHACRYLIC ACID, INHIBITED
14.3 Hazard Classification----------> 8 (Corrosive Liquid))
Label Codes----------> 8 (Corrosive Liquid)
14.4 Package Code----------> II
14.5 Marine Pollutant----------> Yes
14.6 Special precautions for user----------> Yes
EMS-Number----------> F-A, S-B

Air Transport (IATA)
14.1 ID Number----------> UN2531
14.2 Proper shipping name----------> Methacrylic Acid,Inhibited
14.3 Hazard Classification----------> 8 (Corrosive Liquid)
Label Codes----------> 8 (Corrosive Liquid)
14.4 Package Code----------> II
14.5 Environmental hazard----------> None
14.6 Special precautions for user----------> None

15. REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE:

SARA TITLE III (Superfund Amendment and Reauthorization Act)

SECTION 302 AND 304: Extremely Hazardous Substance List (40 CFR 355) - Not Listed
SECTION 313: Toxic Chemicals Listing (40 CFR 372.65) - Not Listed
SECTION 311/312: Hazard Categorization (40 CFR 370) - Acute Health Hazard, Fire Hazard, Chronic Health Hazard

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)

SECTION 102(A) Hazardous Substances (40 CFR 302.4) - Not Listed
Reportable Quantity - None
SECTION 101(14) Reportable Quantity: None

Massachusetts Right to Know Components
2-Methylpropenoic acid CAS-No.79-41-4
Mequinol CAS-No.150-76-5

Pennsylvania Right to Know Components
2-Methylpropenoic acid CAS-No.79-41-4
Mequinol CAS-No.150-76-5

New Jersey Right to Know Components
2-Methylpropenoic acid CAS-No.79-41-4
Mequinol CAS-No.150-76-5

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

TSCA (Toxic Substance Control Act)
Methacrylic Acid CAS 79-41-4 and Mequinol CAS-No.150-76-5 are listed on the TSCA Inventory.

Methacrylic Acid FDA Indirect Food Contact Approvals:
21CFR175.105, 21CFR175.300, 21CFR175.320, 21CFR175.360, 21CFR176.170, 21CFR176.180, 21CFR177.1010, 21CFR177.1200, 21CFR177.1330, 21CFR177.1630, 21CFR177.2420, 21CFR177.2600, 21CFR178.3130, 21CFR178.3790, FDA list of indirect additives used in Food Contact Substances.

International Inventories:

Country or Region	Inventory Name	On inventory yes/no
Australia	Australian Inventory of Chemical Substances	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemicals Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Japan	Industrial Safety & Health Law Inventory (ISHL)	Yes
Korea	Existing Chemicals List (ECL)	Yes
Mexico	National Inventory of Chemical Substances (INSQ)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	**Yes**
Switzerland	Inventory of Notified New Substances (CHINV)	Yes
Taiwan	National Existing Chemical Inventory (NECI)	Yes
United States & Puerto Rico	Toxic Substances Control Act Inventory	Yes

15.2 CHEMICAL SAFETY ASSESSMENT: A chemical safety assessment has been carried out for this substance.

16. OTHER INFORMATION:

Hazard Rating:
4-Extreme

3-High
2-Moderate
1-Slight
0-Insignificant

NFPA RATINGS (SCALE 0-4): Health=3 Fire=2 Reactivity=2
HMIS RATINGS (SCALE 0-4): Health=3 Fire=2 Reactivity=2 PPE=X

Text of hazard statement codes in Section 2 and 3:
H227 Flammable liquids (Category 4
H302 Acute toxicity, Oral (Category 4)
H332 Acute toxicity, Inhalation (Category 4)
H311 Acute toxicity, Dermal (Category 3)
H314 Skin corrosion (Category 1A)
H318 Serious eye damage (Category 1)
H335 Specific target organ toxicity - single exposure (Category 3), Central nervous system
H402 Acute aquatic toxicity (Category 3)

Date of preparation-> August 28, 2000
Revision Number----> 2.1
Revision content----> Updated Sections: 1, added prod. number 193300
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Revision Number----> 2.2
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Prepared by----------> T.G. Fenstermaker, Jr.

Acronyms:

ACGIH	-	American Conference of Governmental Industrial Hygenists
AIHA	-	American Industrial Hygiene Association
ANSI	-	American Nation Standards Institute
API	-	American Petroleum Institute
CERCLA	-	Comprehensive Emergency Response, Compensation, and Liability Act
DOT	-	U.S. Department of Transportation
EPA	-	U.S. Environmental Protection Agency
HMIS	-	Hazardous Materials Information System
IARC	-	International Agency For Research On Cancer
MSHA	-	Mine Safety and Health Administration
NFPA	-	National Fire Protection Association
NIOSH	-	National Institute of Occupational Safety and Health
NOIC	-	Notice of Intended Change (Proposed change to ACGIH TLV)
NTP	-	National Toxicology Program
OPA	-	Oil Pollution Act of 1990
OSHA	-	U.S. Occupational Safety & Health Administration
PEL	-	Permissible Exposure Limit (OSHA)
RCRA	-	Resource Conservation and Recovery Act
REL	-	Recommended Exposure Limit (NIOSH)

SARA - Superfund Amendments and Reauthorization Act of 1986 Title III
SCBA - Self-Contained Breathing Apparatus
STEL - Short-Term Exposure Limit (generally 15 minutes)
TLV - Threshold Limit Value
TSCA - Toxic Substances Control Act
TWA - Time Weighted Average (8hr.)
WHMIS - Canadian Workplace Hazardous Materials Information System

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