

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

1. PRODUCT IDENTIFIER

1.1 PRODUCT NAME-----> **Iso-Butyl Methacrylate, Inhibited**

PRODUCT NUMBER(S)-----> 180990 – 8-30ppm MEHQ

TRADE NAME OR SYNONYMS-----> 2-propenoic acid, 2-methyl, isobutyl ester

1.2 RELAVENT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST:

RECOMMENDED USE: Industrial: Use in polymers; Use as a monomer in polymerization; Use as an intermediate;

USES ADVISED AGAINST: No information available

CAS NO: 97-86-9

Chemical Family: Methacrylate Ester

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 3), H226

Skin irritation (Category 2), H315

Eye irritation (Category 2A), H319

Skin sensitization (Category 1), H317

Specific target organ toxicity - single exposure (Category 3) Respiratory System, H335

Acute aquatic toxicity (Category 1), H400

2.2 GHS Label elements, including precautionary statements



Pictogram

Signal word: Warning

Hazard statement(s)

H226 Flammable liquid and vapor.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H400 Very Toxic to aquatic life.

Precautionary statement(s)

Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.

P362 Take off contaminated clothing and wash before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

P391 Collect spillage.

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 - none

3. INGREDIENTS

3.1 SUBSTANCE:

Ingredient	CAS No.	% by WT. Range	CLASSIFICATION
Iso-Butyl Methacrylate	97-86-9	99.5	Flammable liquids (Category 3), H226
EC# 202-613-0			Skin irritation (Category 2), H315
Index-No.607-113-00-X			Eye irritation (Category 2A), H319
Reg.-No. 01-2119488331-38-XXXX			Skin sensitization (Category 1), H317
			STOT-SE (Category 3) Respiratory System, H335
			Acute aquatic toxicity (Category 1), H400
Monomethyl Ether of Hydroquinone	150-76-5	8-30	Acute toxicity, Oral (Category 4), H301
EC# 205-769-8			Eye irritation (Category 2A), H319
Index-No.604-044-00-7			Acute aquatic toxicity (Category 3), H401
Reg.-No. 01-2119541813-40-XXXX (MEHQ) (Mequinol)			Chronic aquatic toxicity (Category3), H412

3.2 MIXTURE: Not applicable.

4. FIRST-AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES:

INHALATION: Iso-Butyl Methacrylate

****FIRST AID- Remove from exposure to fresh air, restore breathing use CPR or oxygen if needed. Keep warm and quiet. Immediately notify a physician.**

EYE CONTACT (Splash): Iso-Butyl Methacrylate

****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): Iso-Butyl Methacrylate

****FIRST AID- Wash affected area with soap and large amounts of water. Remove and discard contaminated clothing. Consult a physician if irritation persists.**

INGESTION: Iso-Butyl Methacrylate`

****FIRST AID- Do NOT induce vomiting. If conscious and alert patient should be made to drink 2-4 cupfuls of milk or water. 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:

Eye: Irritant; May cause conjunctivitis. Causes redness and pain.

Skin: May be harmful if absorbed through skin. Irritant; Causes redness and pain.

Inhalation: Irritation of the respiratory tract. Sore throat, coughing, shortness of breath. High exposure can cause pulmonary edema.

Ingestion: Can severely irritate mouth, throat and stomach. Can cause dizziness, severe difficulty in breathing and nervousness.

Chronic: No information.

Medical Conditions Aggravated by Exposure: Iso-Butyl Methacrylate can cause allergic skin reaction in susceptible individuals. May adversely affect people with chronic disease of the respiratory system.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED: Call a physician immediately, if you feel unwell.

5. FIRE FIGHTING MEASURES

Flash Point: 42.5°C (108.5°F) TCC

LEL %: 2.0 (V)

Auto-Ignition Temp: 385°C (725°F)

UEL %: 8.0 (V)

UNIFORM FIRE CODE: Combustible Liquid: II

5.1 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: FIRE AND EXPLOSION HAZARD: DANGEROUS FIRE HAZARD WHEN EXPOSED TO HEAT OR FLAME. VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL A CONSIDERABLE DISTANCE TO A SOURCE OF IGNITION AND FLASH BACK. Keep containers tightly closed. Isolate from all sources of ignition.

Closed containers may explode when exposed to extreme heat. Material creates a special hazard because it floats on water. Heat from fire may initiate violent polymerization. Rapid uncontrolled polymerization can cause explosion. Containers that rupture explosively, due to polymerization, may auto-ignite.

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

HAZARDOUS 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: Shut off source. Keep unnecessary people away; isolate hazard area and deny entry. Avoid breathing vapors, stay upwind. Do not spray pool fires directly. A solid stream of water or foam directed into hot burning liquid can cause frothing. Move container from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. For massive fire in cargo area, use unmanned hose holder or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire. Cool containers with water-fog from as far a distance as possible. Wear NIOSH/MSHA approved self-contained breathing apparatus for confined spaces. Use full fire-fighting protective clothing. If protective equipment is not available or not used, fight fire from a protected location or safe distance.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Combustible Liquid; 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, drains 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. For large spills use foam on spill to minimize vapors clean up by vacuuming then using non-flammable absorbent. Remove contaminated soil to remove contaminated trace residues.

Methods for disposal:

Place all saturated absorbent, using non-sparking tools, in an approved container for disposal. Flush with water to remove trace residue. 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. Contaminated monomer may be unstable. Add inhibitor to prevent polymerization. All recovered material should be packaged, labeled, transported and disposed of in conformance with applicable laws and regulations.

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

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING: This material presents a fire hazard. Invisible vapor spreads easily and can be set on fire by many sources, such as pilot lights, welding equipment, and electrical motors and switches. Vapor is heavier than air and can travel considerable distance to a source of ignition and flash back. Do not take internally. Avoid breathing vapors in top of shipping container. Use with adequate ventilation. Avoid contact with eyes, skin and clothing. 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. 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.

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".

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES: Follow maximum allowed pile heights specified in the BOCA codes or the NFPA manual. Local fire authorities should be notified for storage of this material in any quantity. Local permits are required for storage in warehouse quantities. Store in closed containers away from direct sunlight. Recommended storage temperature 2 - 8 °C Store large quantities only in buildings designed to comply with OSHA 1910.106. Storage area should not be subject to rapid temperature changes. Structural materials should be resistant to corrosion by this product. A spill control and containment plan should be provided. Do not store with incompatible materials. Avoid storage under an oxygen free atmosphere. An air space is required above the liquid in all containers. Introduce air periodically in air space over liquid in all containers if stored over 6 months. Use monomer within 1 year. Conduct an inhibitor test on bulk material every month, drums and pails every 3 months. Keep containers tight and upright to prevent leakage. Do not store with incompatible materials. Keep containers closed when not in use. Storage class (TRGS 510): Flammable liquids.

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
Iso-Butyl Methacrylate	97-86-9 EC# 202-613-0 Index-No.607-113-00-X Reg.-No. 01-2119488331-38-XXXX	99.5min.	N.E.
Other ester adducts		.5max.	N.E.
Monomethyl Ether of Hydroquinone (MEHQ) (Mequinol)	150-76-5 EC# 205-769-8 Index-No.604-044-00-7 Reg.-No. 01-2119541813-40-XXXX	8-30ppm	5mg/m3 (NIOSH) 5mg/m3 (ACGIH)

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.

RESPIRATORY PROTECTION: The specific respirator selected must be based on contamination levels found in the work place, must not exceed the working limits of the respirator and be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH-MSHA):

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

BODY CLOTHING: Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged contact with this substance. Use chemical resistant apron or other impervious clothing. Remove and wash contaminated clothing before reuse.

SKIN PROTECTION: Employee must wear appropriate protective gloves to prevent contact with this substance.

Splash contact

Glove Material: Nitrile rubber

Minimum layer thickness: 0.4 mm

Break through time: 162 min

Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

HYGIENE METHODS: Use good personal hygiene practices, wash hands before eating, drinking, smoking or using toilet facilities.

EYE/FACE PROTECTION: Use safety eyewear with splash-guards or face shield must be worn where possibility exists for eye contact. Contact lenses should not be worn. Emergency shower and eyewash fountains should be easily available in the immediate vicinity of any potential exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

Iso-Butyl Methacrylate 97-86-9

Appearance----->	Clear liquid
Color----->	Colorless
Odor----->	Ester-like odor.
Odor Threshold----->	No data available
pH----->	No data available
Molecular Weight----->	142.2amu
Melting/Freezing Point)----->	-34.99°C (-30.98°F)
Boiling Point (°F)----->	155°C (311°F)
Specific Gravity----->	0.886@25°C
Vapor Pressure----->	1.58mmHg@20°C (68°F)
Vapor Density (air=1)----->	4.91
Water Solubility----->	ca.0.6 g/l @ 20°C (68°F)
Partition Coefficient n-Octanol/Water->	log Pow: 2.95 @ 20°C (68°F)
Evaporation Rate (Butyl Acetate=1)---->	>1
Flash Point----->	42.5°C (108.5°F) - closed cup
Upper Flammability Limit----->	8%(V)
Lower Flammability Limit----->	2%(V)

Auto-Ignition Temperature----- > 385 °C (725 °F)
Decomposition Temperature-----> No data available
Viscosity-----> No data available
Explosive Properties-----> No data available
Oxidizing Properties----- > No data available

9.2 Other Information:

Surface tension-----> 23.5 mN/m at 24 °C (75 °F)

10. STABILITY AND REACTIVITY INFORMATION

10.1 REACTIVITY: No applicable information available

10.2 CHEMICAL STABILITY: Unstable () Stable (X)

This product is considered stable under specified conditions of storage, shipment and use. Must be equilibrated with an atmosphere containing 5-8% (by volume) oxygen for inhibitor to function.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS: No data available

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

10.4 CONDITIONS TO AVOID: Storage at temperatures above 38EC, Sunlight, x-ray or ultra violet radiation, Sparks, Flame and free radical initiators.

10.5 INCOMPATIBLE MATERIALS: Strong oxidants such as liquid chlorine, oxygen, sodium hypochlorite, inorganic acids e.g. hydrochloric acid hydrogen peroxide, amines and polymerization initiators.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition above 300C with release of toxic fumes.

11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

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

ACUTE HEALTH EFFECTS:

Effects of overexposure:

Eye> Irritant; May cause conjunctivitis. Causes redness and pain.

Skin> May be harmful if absorbed through skin. Irritant; Causes redness and pain.

Inhalation> Irritation of the respiratory tract. sore throat, coughing, shortness of breath. High exposure can cause pulmonary edema.

Ingestion> Can severely irritate mouth, throat and stomach. Can cause dizziness, severe difficulty in breathing and nervousness.

Chronic: No information.

Medical Conditions Aggravated by Exposure> Iso-Butyl Methacrylate can cause allergic skin reaction in susceptible individuals. May adversely affect people with chronic disease of the respiratory system.

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	
Iso-Butyl Methacrylate	9590mg/kg	17760mg/kg	20.9mg/L/6hr	
Mequinol (MEHQ)	1370mg/kg	2000mg/kg		

SKIN CORROSION/IRRITATION: Skin - Rabbit Result: Irritating to skin. - 24 h

SERIOUS EYE DAMAGE/EYE IRRITATION: Eyes - Rabbit Result: Moderate eye irritation.

RESPIRATORY OR SKIN SENSITIZATION: No data available.

MUTAGENIC EFFECTS: Ames test S. typhimurium Result: negative Mutagenicity (micronucleus test) Mouse - male and female 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.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

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: Teratogenicity: Developmental Toxicity - rat – Intraperitoneal Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Other developmental abnormalities.

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

Specific target organ toxicity (STOT-RE) - repeated exposure (Globally Harmonized System): no data available

ASPIRATION HAZARD: No data available

11.2 ADDITIONAL DATA: No data available

12. ECOLOGICAL INFORMATION

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:

Toxicity to fish:

LC50 - *Oncorhynchus mykiss* (rainbow trout) - 20.0 mg/l - 96.0 h

Method: (OECD Test Guideline 203)

NOEC - *Oncorhynchus mykiss* (rainbow trout) - 4.6 mg/l - 96.0 h

Method: (OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

NOEC - *Daphnia magna* (Water flea) - 22 mg/l - 48 h

Method: Immobilization (OECD Test Guideline 202)

EC50 - *Daphnia magna* (Water flea) - > 29 mg/l - 48 h

Method: Immobilization (OECD Test Guideline 202)

Toxicity to algae:

EC50 - *Scenedesmus capricornutum* (fresh water algae) - 0.29 mg/l - 96h

Method: Growth inhibition (OECD Test Guideline 201)

NOEC - *Scenedesmus capricornutum* (fresh water algae) - 0.047 mg/l - 96 h

Method: Growth inhibition (OECD Test Guideline 201)

12.2 PERSISTENCE AND DEGRADABILITY: aerobic - Exposure time 28 d Result: 74.3 % - Readily biodegradable. (OECD Test Guideline 301D)

12.3 BIOACCUMULATIVE POTENTIAL: The log n-octanol/water partition coefficient is: log Pow: 2.95 at 20°C (68°F)
Biological Oxygen Demand (BOD): 600mg/l

12.4 MOBILITY IN SOIL: No data available.

12.5 RESULTS OF PBT AND vPvB :

PBT assessment results: This substance is not classified as PBT or vPvB.

12.6 OTHER ADVERSE EFFECTS: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life. Avoid release to the environment.

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

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

14. TRANSPORT INFORMATION

Land Transport (DOT)

- 14.1 USDOT ID Number-----> UN2283**
- 14.2 USDOT Shipping Name-----> Iso-Butyl Methacrylate, stabilized**
- 14.3 USDOT Hazard Classification-----> 3 (Flammable Liquid)**
 - USDOT Label Codes-----> 3**
- 14.4 USDOT Package Code-----> III**
- 14.5 Marine Pollutant-----> No**
- 14.6 Special precautions for user-----> No**
 - Emergency Response Guide-----> 130P**

Sea Transport (IMDG)

- 14.1 ID Number-----> UN2283**
- 14.2 Proper shipping name-----> ISO-BUTYL METHACRYLATE,
STABILIZED**
- 14.3 Hazard Classification-----> 3 (Flammable Liquid))**
 - Label Codes-----> 3**
- 14.4 Package Code-----> III**
- 14.5 Marine Pollutant-----> Yes**
- 14.6 Special precautions for user-----> No**
 - EMS-Number-----> F-E, S-D**

Air Transport (IATA)

14.1 ID Number-----> UN2283
14.2 Proper shipping name-----> Iso-Butyl Methacrylate, stabilized
14.3 Hazard Classification-----> 3 (Flammable Liquid)
Label Codes-----> 3
14.4 Package Code-----> III
14.5 Environmental hazard-----> None
14.6 Special precautions for user-----> No

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

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

Mequinol CAS-No.150-76-5

Pennsylvania Right to Know Components

Isobutyl methacrylate CAS-No. 97-86-9

Mequinol CAS-No.150-76-5

New Jersey Right to Know Components

Isobutyl methacrylate CAS-No. 97-86-9

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)

Isobutyl methacrylate CAS-No. 97-86-9 and Mequinol CAS-No.150-76-5 are listed on the TSCA Inventory.

Iso-Butyl Methacrylate FDA Indirect Food Contact Approvals:

21CFR177.1010, FDA list of indirect additives used in food contact substances.

International Inventories:

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

15.2 CHEMICAL SAFETY ASSESSMENT: A Chemical Safety Assessment has been conducted.

16. OTHER INFORMATION:

HMIS (Hazardous Materials Identification System)

Hazard Rating:

4-Extreme

3-High

2-Moderate

1-Slight

0-Insignificant

NFPA RATINGS (SCALE 0-4): Health=2 Fire=3

Reactivity=0

HMIS RATINGS (SCALE 0-4): Health=2 Fire=3

Reactivity=2 PPE=H

Text of hazard statement codes in Section 2 and 3:

H226 Flammable liquid and vapor.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H400 Very Toxic to aquatic life.

Date of preparation-> January 23, 2014

Revision Number----> 1.3

Revision Content----> General update all sections

Revision Date-----> September 21, 2018

Prepared by-----> T.G.Fenstermaker, Jr.

Acronyms:

ACGIH	-	American Conference of Governmental Industrial Hygienists
AIHA	-	American Industrial Hygiene Association
ANSI	-	American National 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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