



Section 1 – Company Information

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Section 2 – Product Identification/ Information on Ingredients

PRODUCT NAME Acrylic Acid, Glacial
CAS NUMBER 79-10-7

PRODUCT	CAS NUMBER	% BY WEIGHT
Acrylic Acid	79-10-7	99.8%
Monomethyl Ether of Hydroquinone (MEHQ)	150-76-5	180 – 240 ppm

Section 3 – Hazards Identification

Physical Appearance: Acrylic acid is a clear, colorless, mobile liquid with a strong, acrid odor.

Emergency Overview

May be fatal if swallowed
Harmful if inhaled or absorbed through skin.
Causes burns
Flammable Liquid and Vapor
May polymerize explosively if contaminated.
Target Organs - Liver and Kidneys

GHS Classification

Flammable liquids (Category 3)
Acute toxicity, Oral (Category 4)
Acute toxicity, Inhalation (Category 4)
Acute toxicity, Dermal (Category 5)
Skin corrosion (Category 1A)
Serious eye damage (Category 1)
Specific target organ toxicity - single exposure (Category 3)
Acute aquatic toxicity (Category 1)



GHS Label Elements, including Precautionary Statements

Signal Word: Danger

Hazard Statement(s)

- H226 Flammable liquid and vapor.
- H302 + H332 Harmful if swallowed or if inhaled
- H313 May be harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H335 May cause respiratory irritation.
- H400 Very toxic to aquatic life.

Precautionary Statement(s)

- P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a POISON CENTER or doctor/ physician.

CERCLA Ratings (Scale 0-3)

- Health:** 3
- Fire:** 2
- Reactivity:** 2
- Persistence:** 0

NFPA Ratings (Scale 0-4)

- Health:** 3
- Fire:** 2
- Reactivity:** 2

HMIS Ratings (Scale 0-4)

- Health:** 3
- Fire:** 2
- Reactivity:** 2
- PPE:** X

Exposure Limits: See Section 8

Routes of Entry: Inhalation; Skin; Ingestion; Eyes



Effects of Overexposure (Acute)

Eye: Corrosive. Can cause chemical burn - damage irreversible. Vapors are extremely irritating.

Skin: Toxic corrosive. Can cause chemical burn. Sensitization (allergic reaction) can occur.

Inhalation: Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Can cause pulmonary edema (accumulation of fluid in the lungs). Signs and symptoms can be delayed for several hours.

Ingestion: Highly toxic. Can cause pain and burning in mouth, throat and stomach.

Medical Conditions Aggravated by Exposure: Significant exposure to this chemical may adversely affect people with chronic disease of the respiratory system, skin and/or eyes.

Section 4 – First Aid Measures

Emergency and First Aid Procedures

Inhalation: Remove from exposure to fresh air, restore breathing, use oxygen if needed. Keep warm and quiet. Immediately notify a physician.

Eyes (Splash): Immediately flush eyes with water for 15 minutes. Hold eyelids open for complete irrigation. Immediately take to a physician.

Skin (Splash): Wash affected area with soap and large amounts of water. Remove contaminated clothing. Consult a physician if irritation persists.

Ingestion: Patient should be made to drink large amounts of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician or poison control center, treat symptomatically.

Section 5 – Fire Fighting Measures

Flash Point: 115°F TCC

Auto-Ignition Temp: 745°F

LEL: 2.0%

UEL: 13.7%

Extinguishing Media: Foam; CO₂; Dry chemical; Water fog

Special Fire Fighting Procedures: 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. Wear self-contained breathing apparatus and turn out gear for confined spaces and where there is exposure to vapors.

Unusual Fire and Explosion Hazards: Keep containers tightly closed. Flammable liquid; isolate from all sources of ignition. Closed containers may explode when exposed to extreme heat. Vapors are heavier than air and can travel considerable distance to a source of ignition and flashback. Rapid uncontrolled polymerization can cause explosion. Containers that rupture explosively, due to polymerization, may auto-ignite.

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.



Section 6 – Accidental Release Measures

Protective Measures: 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.

Spill Management: 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. 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 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.

Section 7 – Handling & Storage

General Handling Information: 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.

Maintain contact with atmosphere of 5 - 21% oxygen. Do not use inert atmosphere as blanket. 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. If product solidifies, melt only in a temperature controlled environment. Drums may be thawed by placing in a heated room at temperatures between 68°F and 91°F. Product being melted, particularly in 55 gallon drums, should be agitated at regular intervals by rolling to assure thorough mixing and distribution of the polymerization inhibitor. Never use steam or electrical heating devices (e.g. tapes, mantles, jackets) to thaw this product. As soon as the product is thawed, normal storage temperatures (59 to 77°F) should be established.

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.

Do not take internally. Avoid prolonged or repeated contact with skin, eyes, and clothing.

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.

Avoid breathing vapors in top of shipping container. Use with adequate ventilation.



Section 8 – Exposure Controls & Personal Protection

Exposure Limits

Acrylic Acid: 2 ppm TLV (ACGIH); 2ppm TWA (NIOSH)

Monomethyl Ether of Hydroquinone (MEHQ): 5mg/m³ TLV (ACGIH)

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

Ventilation: 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.

Protective Gloves: Rubber or neoprene chemical resistant gloves.

Eye Protection: Use safety eyewear with splash guards or face shield.

Other Protective Clothing or Equipment: Use chemical resistant apron or other impervious clothing. Remove and wash contaminated clothing before reuse. Shower and eyewash should be easily accessible to the work area.

Section 9 – Physical & Chemical Properties

Appearance: Clear, colorless, mobile liquid

Odor: Strong, acid odor

Boiling Range: 285.8°F

Solubility in Water: Complete

Evaporation Rate (Butyl Acetate = 1): 1

Vapor Density (air = 1): 2.5

Freezing Point: 55.4°F

Vapor Pressure: 4.0 mm Hg at 20°C

Specific Gravity: 1.05 at 25°C

Volatile: 100%

Molecular Weight: 72.0

Section 10 – Stability & Reactivity Data

Stability: Stable if stored and handled under recommended conditions.

Conditions to Avoid: Storage at product temperatures above 77°F and below 59°F; Sunlight, x-ray, or ultraviolet radiation. Heat, sparks, pilot lights, static electricity, and open flame. Depletion of dissolved oxygen severely reduces the effectiveness of the inhibitor and can lead to polymerization.

Incompatibility (Materials to Avoid): Strong oxidants such as liquid chlorine, oxygen, sodium hypochlorite, inorganic acids (e.g. hydrochloric acid hydrogen peroxide). Other polymerization initiators.



Hazardous Decomposition Products: Fumes, smoke, carbon monoxide, aldehydes and other decomposition products where combustion is not complete.

Hazardous Polymerization: May occur. Uncontrolled polymerization can cause rapid evolution of heat and increased pressure which can result in violent rupture or storage vessels or containers.

Section 11 – Toxicological Information

The effects of overexposure shown in Section 3 are based on acute toxicity profiles. Typical values are:

Oral LD50 (Rat): 830 mg/kg

Skin LD50 (Rabbit): > 2000 mg/kg

Inhalation LC50: > 5100 ppm/4hr

Carcinogenicity: This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC classification.

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Acrylic acid)

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 and OSHA. Acrylic acid was not carcinogenic in a well-conducted drinking water study in rats at concentrations up to 1200ppm and in well-conducted lifetime dermal studies in mice.

Mutagenicity: Approximately 12 standard mutagenicity studies have been conducted with acrylic acid. All in vivo studies and the majority of in vitro studies (including the Ames test) have been negative.

Reproduction: No evidence or teratogenicity in rats; inhalation study. Reported to not adversely affect reproduction in rats, oral exposure.

Specific Target Organ Toxicity - Single Exposure (Globally Harmonized System):

Inhalation - May cause respiratory irritation - Respiratory system

Specific Target Organ Toxicity - Repeated Exposure (Globally Harmonized System): No data available

Section 12 – Ecological Information

Toxicity to Fish LC50: *Oncorhynchus mykiss* (rainbow trout) - 27 mg/L - 96.0 h

Toxicity to Daphnia and other Aquatic Invertebrates: EC50 - *Daphnia magna* (Water flea) - 95 mg/L - 48 h

Toxicity to Algae EC50 - *Desmodesmus subspicatus* (green algae) - 0.04 mg/L - 96h



Environmental Fate: When released into the soil, this material is expected to leach into ground water. When released into the soil, this material may biodegrade to a moderate extent. When released into water, this material is not expected to evaporate significantly. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals with a half-life of less than 1 day. This material is not expected to bioaccumulate. Log octanol/water partition coefficient is less than 3.0

Section 13 – Disposal Consideration

Dispose of product and contaminated packaging in accordance with all local, state and federal environmental control regulations.

Section 14 – Transportation Data

DOT Shipping Name: Acrylic Acid, stabilized
DOT Hazard Classification: 8 (Corrosive Liquid)
DOT Label Codes: 8, 3
DOT ID Number: UN2218
DOT Package Code: II
Emergency Response Guide: 132P
Marine Pollutant: No

Section 15 – Regulatory Information

(RQ) Reportable Quantity: 5000 lb. CERCLA

Sara 302: No

Sara 313: Yes; Acrylic acid 99.8% (CAS 79-10-7)

Sara Section 311 List Hazards

Immediate Acute Health: Yes

Delayed Chronic Health: Yes

Fire: Yes

Reactive: Yes

Sudden Release of Pressure: No

Massachusetts Right to Know Components: Acrylic acid (CAS-No.79-10-7)

Pennsylvania Right to Know Components: Acrylic acid (CAS-No.79-10-7)

New Jersey Right to Know Components: Acrylic acid (CAS-No.79-10-7)

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.



Section 16 – Other Information

Disclaimer

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

