

Material Safety Data Sheet (MSDS)

Ethyl Acrylate

Revision Date: 24-September-2025

Version: 1.0

Section 1: Product Identification

- **Product Name:** Ethyl Acrylate
- **Chemical Formula:** C₅H₈O₂
- **CAS No:** 140-88-5
- **Synonyms:** 2-Propenoic acid, ethyl ester; Acrylic acid ethyl ester; EA
- **Recommended Use:** Intermediate for polymers, resins, adhesives, coatings; chemical synthesis.

Section 2: Hazards Identification

- **Classification (GHS):** Flammable liquid (Category 2); Acute toxicity, oral (Category 4); Skin irritation (Category 2); Eye irritation (Category 2A); Skin sensitization (Category 1); STOT SE (Category 3: respiratory irritation); Carcinogenicity (IARC Group 2B).
- **Signal Word:** Danger
- **Hazard Statements:**
 - Highly flammable liquid and vapor.
 - Harmful if swallowed.
 - Causes skin irritation.

- Causes serious eye irritation.
- May cause an allergic skin reaction.
- May cause respiratory irritation.
- May polymerize exothermically.
- **Precautionary Statements:**
 - Keep away from heat, sparks, open flames and hot surfaces.
 - Use explosion-proof equipment and grounded containers.
 - Avoid breathing vapors/mist; use only in well-ventilated areas.
 - Wear protective gloves/eye protection/face protection.

Section 3: Composition / Information on Ingredients

- **Chemical Identity:** Ethyl Acrylate (stabilized with 10–20 ppm MEHQ or equivalent inhibitor)
- **Concentration:** ≥ 99% Ethyl Acrylate (typical); inhibitor added to prevent polymerization

Section 4: First Aid Measures

- **Inhalation:** Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention if symptoms occur.
- **Skin Contact:** Immediately remove contaminated clothing and wash skin with plenty of soap and water. Get medical advice if irritation persists.
- **Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention.
- **Ingestion:** Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER/doctor if unwell.

Section 5: Fire-Fighting Measures

- **Suitable Extinguishing Media:** Alcohol-resistant foam, dry chemical, carbon dioxide (CO₂); water spray to cool containers.
- **Specific Hazards:** Vapors are heavier than air and may travel to ignition source; containers may rupture on heating. Burning produces carbon oxides and irritating acrylate fumes. Polymerization may occur under fire conditions.
- **Protective Equipment:** Firefighters should wear self-contained breathing apparatus and full protective clothing.

Section 6: Accidental Release Measures

- **Personal Precautions:** Evacuate area. Eliminate all ignition sources. Provide ventilation. Wear appropriate PPE and antistatic footwear.
- **Environmental Precautions:** Prevent entry into drains and waterways. Notify authorities for large spills.
- **Cleanup Methods:** Contain and absorb with inert material (sand, vermiculite). Collect in properly labeled containers. Use non-sparking tools. Wash spill area with plenty of water and detergent.

Section 7: Handling and Storage

- **Handling:** Ground/bond container and receiving equipment. Avoid inhalation and skin/eye contact. Handle under inhibitor presence; avoid contamination with peroxides, acids, bases, or metal salts that may promote polymerization.
- **Storage:** Store in tightly closed, inhibitor-containing containers in a cool, dry, well-ventilated place away from heat and sunlight. Maintain oxygen in headspace as specified by inhibitor supplier. Protect from freezing and from temperatures $>30^{\circ}\text{C}$.

Section 8: Exposure Controls / Personal Protection

- **Exposure Limits:** ACGIH TLV (TWA) 5 ppm (skin) — check local OELs.
- **Engineering Controls:** Use local exhaust ventilation; explosion-proof systems.
- **Personal Protective Equipment:** Chemical-resistant gloves (nitrile/butyl), splash goggles/face shield, protective clothing; organic vapor respirator if ventilation is inadequate.

Section 9: Physical and Chemical Properties

- **Appearance:** Colorless to pale yellow liquid
- **Odor:** Pungent, acrylate-like odor
- **Boiling Point:** $99 - 101^{\circ}\text{C}$
- **Flash Point:** 9°C (closed cup)
- **Autoignition Temperature:** 390°C
- **Vapor Pressure:** 30–40 mmHg at 20°C

- **Solubility:** Slightly soluble in water; miscible with many organic solvents
- **Molecular Weight:** 100.12 g/mol

Section 10: Stability and Reactivity

- **Reactivity:** May polymerize if uninhibited or heated; contamination can initiate polymerization.
- **Stability:** Stable under recommended storage with inhibitor.
- **Incompatible Materials:** Strong oxidizers, strong acids/bases, peroxides, azo initiators, redox-active metal salts.
- **Hazardous Decomposition Products:** Carbon oxides; acid fumes.
- **Conditions to Avoid:** Heat, sunlight, confined spaces without oxygen, contamination, and loss of inhibitor.

Section 11: Toxicological Information

- **Routes of Exposure:** Inhalation, skin contact, eye contact, ingestion.
- **Acute Toxicity:** Oral LD50 (rat) 1,000–2,000 mg/kg; Dermal LD50 (rabbit) 1,800 mg/kg (typical literature values).
- **Irritation:** Causes skin and eye irritation; respiratory irritant.
- **Sensitization:** May cause allergic skin reaction.
- **Carcinogenicity:** IARC Group 2B (possibly carcinogenic).
- **Stot Se:** May cause respiratory irritation.

Section 12: Ecological Information

- **Ecotoxicity:** Toxic to aquatic organisms at higher concentrations; avoid release.
- **Persistence and Degradability:** Readily biodegradable.
- **Bioaccumulative Potential:** Low to moderate.
- **Mobility:** Expected to be mobile in the environment; volatilizes from water/soil.

Section 13: Disposal Considerations

- Dispose of contents/container in accordance with local/regional/national regulations. Incinerate under controlled conditions where permitted. Do not discharge into drains.

Section 14: Transport Information

- **UN Number:** UN1917
- **Proper Shipping Name:** Ethyl Acrylate, inhibited
- **Hazard Class:** 3 (Flammable liquid)
- **Packing Group:** II

Section 15: Regulatory Information

- Complies with Indian chemical safety regulations and listed on international inventories (e.g., TSCA, EINECS/EC).
- GHS classification as noted; check local regulations for additional requirements.

Section 16: Other Information

Disclaimer: The above information is believed to be correct but does not claim to be exhaustive. Users are responsible for verifying suitability under actual conditions of use. Triveni Chemicals disclaims liability for damage resulting from handling or contact.

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