

# Material Safety Data Sheet

## Ethyl acrylate MSDS

### Section 1: Chemical Product and Company Identification

**Product Name:** Ethyl acrylate

**Catalog Codes:** SLE1105

**CAS#:** 140-88-5

**RTECS:** AT0700000

**TSCA:** TSCA 8(b) inventory: Ethyl acrylate

**CI#:** Not available.

**Synonym:**

**Chemical Formula:** C<sub>5</sub>H<sub>8</sub>O<sub>2</sub>

**Contact Information:**

**Sciencelab.com, Inc.**

14025 Smith Rd.

Houston, Texas 77396

US Sales: **1-800-901-7247**

International Sales: **1-281-441-4400**

Order Online: [ScienceLab.com](http://ScienceLab.com)

**CHEMTREC (24HR Emergency Telephone), call:**

1-800-424-9300

**International CHEMTREC, call:** 1-703-527-3887

**For non-emergency assistance, call:** 1-281-441-4400

### Section 2: Composition and Information on Ingredients

**Composition:**

**Name CAS # % by Weight**

Ethyl acrylate 140-88-5 100

**Toxicological Data on Ingredients:** Ethyl acrylate: ORAL (LD50): Acute: 800 mg/kg [Rat].

VAPOR (LC50): Acute: 1414 ppm

4 hour(s) [Rat].

### Section 3: Hazards Identification

**Potential Acute Health Effects:**

Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation (lung irritant). Hazardous

in case of skin contact (permeator). Slightly hazardous in case of skin contact (corrosive).

Inflammation of the eye is

characterized by redness, watering, and itching. Skin inflammation is characterized by itching,

scaling, reddening, or,

occasionally, blistering.

**Potential Chronic Health Effects:**

CARCINOGENIC EFFECTS: Classified + (PROVEN) by NIOSH. Classified A2 (Suspected for human.) by ACGIH, 2

(Reasonably anticipated.) by NTP. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

### Section 4: First Aid Measures

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**Eye Contact:**

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids

open. Cold water may be used. Do not use an eye ointment. Seek medical attention.

**Skin Contact:**

After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used.

Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

**Serious Skin Contact:**

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

**Inhalation:** Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

**Serious Inhalation:**

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek medical attention.

**Ingestion:**

Do not induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

**Serious Ingestion:** Not available.

**Section 5: Fire and Explosion Data**

**Flammability of the Product:** Flammable.

**Auto-Ignition Temperature:** 355 °C (671 °F)

**Flash Points:** CLOSED CUP: -2 °C (28.4 °F). OPEN CUP: 9 °C (48.2 °F).

**Flammable Limits:** LOWER: 1.4% UPPER: 13%

**Products of Combustion:** These products are carbon oxides (CO, CO<sub>2</sub>).

**Fire Hazards in Presence of Various Substances:** Flammable in presence of open flames and sparks.

**Explosion Hazards in Presence of Various Substances:**

Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

**Fire Fighting Media and Instructions:**

Flammable liquid, soluble or dispersed in water. SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use alcohol foam, water spray or fog.

**Special Remarks on Fire Hazards:** Not available.

**Special Remarks on Explosion Hazards:** Not available.

**Section 6: Accidental Release Measures****Small Spill:**

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

**Large Spill:**

Flammable liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth,

sand or other non-combustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined

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areas; dike if needed. Eliminate all ignition sources. Be careful that the product is not present at a concentration level above

TLV. Check TLV on the MSDS and with local authorities.

## **Section 7: Handling and Storage**

### **Precautions:**

Keep locked up Keep container dry. Keep away from heat. Keep away from sources of ignition.

Keep away from direct sunlight

or strong incandescent light. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapour/

spray. Never add water to this product Avoid shock and friction. In case of insufficient ventilation, wear suitable respiratory

equipment If ingested, seek medical advice immediately and show the container or the label.

Avoid contact with skin and eyes

### **Storage:**

Flammable materials should be stored in a separate safety storage cabinet or room. Keep away from heat. Keep away from

sources of ignition. Keep container tightly closed. Keep in a cool, well-ventilated place. Ground all equipment containing

material. A refrigerated room would be preferable for materials with a flash point lower than 37.8°C (100°F).

## **Section 8: Exposure Controls/Personal Protection**

### **Engineering Controls:**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective

threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

### **Personal Protection:**

Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

### **Personal Protection in Case of a Large Spill:**

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid

inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

### **Exposure Limits:**

TWA: 25 (ppm) TWA: 100 (mg/m<sup>3</sup>) Consult local authorities for acceptable exposure limits.

## **Section 9: Physical and Chemical Properties**

**Physical state and appearance:** Liquid.

**Odor:** Penetrating Lachrymator (Strong.)

**Taste:** Not available.

**Molecular Weight:** 100.12 g/mole

**Color:** Colorless to light yellow.

**pH (1% soln/water):** Not available.

**Boiling Point:** 99.4°C (210.9°F)

**Melting Point:** -72°C (-97.6°F)

**Critical Temperature:** Not available.

**Specific Gravity:** 0.923 (Water = 1)

**Vapor Pressure:** 29.3 mm of Hg (@ 20°C)

**Vapor Density:** 3.45 (Air = 1)

**Volatility:** Not available.

**Odor Threshold:** Not available.

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**Water/Oil Dist. Coeff.:** Not available.

**Ionicity (in Water):** Not available.

**Dispersion Properties:** See solubility in water.

**Solubility:** Partially soluble in cold water.

## **Section 10: Stability and Reactivity Data**

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Not available.

**Incompatibility with various substances:**

The product may undergo hazardous decomposition, condensation or polymerization, it may react violently with water to emit toxic gases or it may become self-reactive under conditions of shock or increase in temperature or pressure.

**Corrosivity:** Non-corrosive in presence of glass.

**Special Remarks on Reactivity:** May undergo autopolymerization.

**Special Remarks on Corrosivity:** Not available.

**Polymerization:** No.

## **Section 11: Toxicological Information**

**Routes of Entry:** Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

**Toxicity to Animals:**

WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral

toxicity (LD50): 800 mg/kg [Rat]. Acute toxicity of the vapor (LC50): 1414 ppm 4 hour(s) [Rat].

**Chronic Effects on Humans:**

CARCINOGENIC EFFECTS: Classified + (PROVEN) by NIOSH. Classified A2 (Suspected for human.) by ACGIH, 2

(Reasonably anticipated.) by NTP.

**Other Toxic Effects on Humans:**

Very hazardous in case of skin contact (irritant), of ingestion, of inhalation (lung irritant).

Hazardous in case of skin contact

(permeator). Slightly hazardous in case of skin contact (corrosive).

**Special Remarks on Toxicity to Animals:** Not available.

**Special Remarks on Chronic Effects on Humans:** Not available.

**Special Remarks on other Toxic Effects on Humans:** Not available.

## **Section 12: Ecological Information**

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Products of Biodegradation:**

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The products of degradation are as toxic as the original product.

**Special Remarks on the Products of Biodegradation:** Not available.

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## **Section 13: Disposal Considerations**

**Waste Disposal:**

## **Section 14: Transport Information**

**DOT Classification:**

Class 3: Flammable liquid. Marine pollutant

**Identification:** : Ethyl Acrylate : UN1917 PG: II

**Special Provisions for Transport:** Not available.

## **Section 15: Other Regulatory Information**

**Federal and State Regulations:**

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Ethyl acrylate California prop. 65:

This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Ethyl acrylate Rhode Island RTK hazardous substances: Ethyl acrylate Pennsylvania RTK: Ethyl acrylate Florida: Ethyl acrylate Minnesota: Ethyl acrylate Massachusetts RTK: Ethyl acrylate New Jersey: Ethyl acrylate TSCA 8(b) inventory: Ethyl acrylate SARA 313 toxic chemical notification and release reporting: Ethyl acrylate

**Other Regulations:**

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

EINECS: This product is on the

European Inventory of Existing Commercial Chemical Substances.

**Other Classifications:**

**WHMIS (Canada):**

CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F). CLASS D-2A:

Material causing other toxic effects

(VERY TOXIC). CLASS F: Dangerously reactive material.

**DSCL (EEC):**

R11- Highly flammable. R20/22- Harmful by inhalation and if swallowed. R37/38- Irritating to respiratory system and skin. R41-

Risk of serious damage to eyes. R45- May cause cancer.

**HMIS (U.S.A.):**

**Health Hazard:** 2

**Fire Hazard:** 3

**Reactivity:** 2

**Personal Protection:** h

**National Fire Protection Association (U.S.A.):**

**Health:** 2

**Flammability:** 3

**Reactivity:** 2

**Specific hazard:**

**Protective Equipment:**

Gloves. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

Wear appropriate respirator

when ventilation is inadequate. Splash goggles.

**Section 16: Other Information**

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**References:** Not available.

**Other Special Considerations:** Not available.

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ETHYL ACRYLATE(EA)**CAS NO:**140-88-5

**Molecular formula:** CH<sub>2</sub>CHCOOC<sub>2</sub>H<sub>5</sub>

**Synonyms:** 2-Propenoic Acid, Ethyl Ester; Acrylic Acid, Ethyl Ester

**Technical Index:**

Item	Specification
appearance	Clear, colorless liquid with a pungent odor.
Purity≥□(GC)	99.5
Water≤Wt, %	0.05
Color (APHA)≤	10
Acidity(AS AA) ≤Wt, %	0.005
Inhibitor (MEHQ) Wt, ppm	15+5(As agreed upon between the buyer and the seller)

**Application:**

ETHYL ACRYLATE is used in the production of coatings, elastomers, adhesives, thickeners, superabsorbents, acrylic esters, and fiber sizing. Sodium acrylate (the sodium salt of glacial acrylic acid) is copolymerized with acrylamide to make an anionic copolymer (a-PAA), which is used as a flocculant in water treatment.