

Ethyl Acrylate

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Trade name	Ethyl Acrylate		
Synonyms	Acrylic acid ethyl ester; Ethoxycarbonyl ethylene		
Use	Industrial use, Intermediate, Paint and Coatings, Paper Chemical, Raw material for chemical processes, Raw material for industry		
Company	Sasol Chemicals (USA) LLC (an affiliate of Sasol Chemicals North America LLC)		
Address	12120 Wickchester Lane Houston TX 77079		
Telephone	CHEMTREC North America Transportation Emergency (24-hr)		(800) 424-9300
	CHEMTREC World Wide		(703) 527-3887
	Other Emergencies (24-hr)		(337) 494-5142
	SDS and Product Information (8:00am-4:30pm CST)		(281) 588-3491
	Health and Safety Information (7:30am-4:00pm CST)		(281) 588-3492
E-mail address	SasolElectronicSDS@us.sasol.com		

SECTION 2 HAZARDS IDENTIFICATION

GHS Hazards

Flammable liquids	Category 2
Acute toxicity (Oral)	Category 4
Acute toxicity (Inhalation)	Category 3
Acute toxicity (Dermal)	Category 4
Carcinogenicity	Category 2
Eye irritation	Category 2A
Skin irritation	Category 2
Skin sensitisation	Category 1
Specific target organ toxicity - single exposure	Category 3 (Resp. irritation)
Chronic aquatic toxicity	Category 3

LABEL ELEMENTS**Hazard symbols****Signal word** Danger

Hazard statements H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.

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- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H331 Toxic if inhaled.
- H335 May cause respiratory irritation.
- H351 Suspected of causing cancer.
- H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

- Prevention**
- P201 Obtain special instructions before use.
 - P202 Do not handle until all safety precautions have been read and understood.
 - P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 - P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
 - P242 Use only non-sparking tools.
 - P243 Take precautionary measures against static discharge.
 - P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 - P233 Keep container tightly closed.
 - P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
 - P264 Wash skin thoroughly after handling.
 - P273 Avoid release to the environment.
- Response**
- P370 + P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide for extinction.
 - P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
 - P330 Rinse mouth.
 - P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
 - P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
 - P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - P337 + P313 If eye irritation persists: Get medical advice/ attention.
 - P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - P311 Call a POISON CENTER /doctor.
 - P308 + P313 IF exposed or concerned: Get medical advice/ attention.
- Storage**
- P403 + P405 + P235 Store locked up in a well-ventilated place. Keep cool.
- Disposal**
- P501 Dispose of contents/ container to an approved waste disposal plant.
- Additional advice** Possible/probable human carcinogen

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SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

<u>Components</u>	<u>CAS-No.</u>	<u>Weight percent</u>
Ethyl Acrylate	140-88-5	100

See Section 8 for Exposure Guidelines and Section 15 for Regulatory Classifications.

SECTION 4 FIRST AID MEASURES

- Eye contact** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- Skin contact** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention immediately.
- Inhalation** Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. If breathing is difficult, give oxygen. Call a physician immediately.
- Ingestion** If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

SECTION 5 FIREFIGHTING MEASURES

FLAMMABLE PROPERTIES

Fire/explosion NFPA Class 1B flammable liquid. Vapours may form explosive mixtures with air. Flash back possible over considerable distance. Use water spray to disperse the vapors.

Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Protective equipment and precautions for firefighters Wear self-contained breathing apparatus and protective suit.

Further information Keep containers and surroundings cool with water spray. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up Evacuate personnel to safe areas. Remove all sources of ignition. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Do not flush into surface water or sanitary sewer system.

Spill precautions Do not flush into surface water or sanitary sewer system.

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SECTION 7 HANDLING AND STORAGE

Safe handling advice	Ensure all equipment is electrically grounded before beginning transfer operations. Keep away from heat and sources of ignition.
Storage/Transport pressure	Ambient
Load/Unload temperature	Ambient

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES

Ensure adequate ventilation, especially in confined areas. Use explosion-proof equipment.

PERSONAL PROTECTIVE EQUIPMENT

Eyes	Chemical resistant goggles must be worn., Face-shield
Skin	Wear suitable protective clothing and gloves.
Inhalation	Always wear a self-contained breathing apparatus or full-face airline respirator when using this chemical.

EXPOSURE GUIDELINES

Components	Exposure limit(s)
Ethyl Acrylate	OSHA PEL 25 ppm 100 mg/m ³ ACGIH TLV (8-hour) 5 ppm ACGIH STEL 15 ppm

PEL= Permissible Exposure Limits
TLV= Threshold Limit Value
EL= Excursion Limit

TWA= Time Weighted Average (8 hr.)
STEL= Short Term Exposure Limit (15 min.)
WEEL= Workplace Environmental Exposure Level

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	liquid;
Colour	Clear, colorless
Form	liquid
Odour	unpleasant
Odour Threshold	no data available
Flash point	9 °C, 48 °F;

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Flammability	Upper explosion limit: 13 %(V) Lower explosion limit: 1.7 %(V)
Boiling point/boiling range	99.8 °C, 211.6 °F;
Melting point/range	-71.2 °C, -96.2 °F;
Auto-ignition temperature	372 °C, 702 °F;
Decomposition temperature	no data available
Flammability (solid, gas)	no data available
Vapour pressure	40 hPa @ 21 °C, 70 °F;
Vapour density	no data available
Density	0.92 g/cm ³ @ 20 °C, 68 °F;
Specific gravity	no data available
Water solubility	slightly soluble
Viscosity	no data available
Viscosity, dynamic	0.54 mPa.s @ 25 °C, 77 °F;
pH	no data available
Evaporation rate	no data available
Partition coefficient: n-octanol/water	log Pow: 1.18; @ 25 °C, 77 °F;

SECTION 10 STABILITY AND REACTIVITY

Reactivity	The product is normally supplied in a stabilized form. If the permissible storage period and/or storage temperature is noticeably exceeded, the product may polymerise with heat evolution.
Chemical stability	Ensure good distribution of the inhibitor and dissolved oxygen. Please take note of the product's maximum storage period.
Conditions to avoid	Avoid temperatures above 35°C, direct sunlight and contact with sources of heat. Avoid radical-forming starting agents, peroxides and reactive metals. Protect from contamination.

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Hazardous decomposition products No decomposition if stored normally. Prolonged storage of the product can cause the stabiliser to lose its effectiveness.

Materials to avoid Oxidizing agents
Heavy metal salts
Acids and bases
Acid anhydrides
polymerisation initiators

Hazardous polymerisation Hazardous polymerization may occur upon depletion of inhibitor - may cause heat and pressure build-up in closed containers.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute dermal toxicity LD50 Rabbit: > 1,000 - 2,000 mg/kg(literature value)

Acute inhalation toxicity LC50 Rat (4 hours): > 2 - 10 mg/l; OECD Test Guideline 403 (literature value)

Acute oral toxicity LD50 Rat: > 300 - 2,000 mg/kg (literature value)

Skin corrosion/irritation (Rabbit): OECD Test Guideline 404 irritating, (literature value)

Eye damage/irritation (Rabbit) irritating, (literature value)

Respiratory or skin sensitization human skin: Causes sensitisation; Maximisation Test (literature value)

Germ cell mutagenicity **Genotoxicity in vitro:**
Type: Ames test
System: Salmonella typhimurium; with and without metabolic activation
Result: In vitro tests did not show mutagenic effects (literature value)

Genotoxicity in vivo:
no data available

Assessment Mutagenicity:
Based on available data, the classification criteria are not met.

Reproductive toxicity **Reproductive toxicity:**
no data available

Assessment Reproductive toxicity:
no data available

Teratogenicity:
no data available

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Assessment teratogenicity:

no data available

STOT - single exposure

The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

STOT - repeated exposure

no data available

Aspiration toxicity

no data available

Carcinogenicity
Assessment carcinogenicity:

Suspected of causing cancer.

Carcinogenicity ratings

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IARC

Possible human carcinogen

SECTION 12 ECOLOGICAL INFORMATION

Aquatic toxicity

Harmful to aquatic life with long lasting effects.

Toxicity to fish

LC50 (Cyprinodon variegatus (sheepshead minnow)): > 1 - 10 mg/l; flow-through test; OECD Test Guideline 203 (literature value)

Toxicity to aquatic invertebrates

EC50 (Daphnia magna (Water flea)) 48 hours: > 1 - 10 mg/l (literature value)

Toxicity to algae

EC50 (Pseudokirchneriella subcapitata (green algae)) 72 hours: > 1 - 10 mg/l (literature value)

Chronic toxicity to aquatic invertebrates

NOEC (Daphnia magna (Water flea)) 21 d: > 0.1 - 1 mg/l; semi-static test; OECD Test Guideline 211 (literature value)

Biodegradation

Readily biodegradable

OECD Test Guideline 310 (28 d): > 60 % (literature value)

Bioaccumulation

no data available

Mobility in soil

no data available

Other adverse effects

This substance is not considered to be persistent, bioaccumulating and toxic (PBT).;

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SECTION 13 DISPOSAL CONSIDERATIONS

- Waste Code** U113.D001 - Ignitability (RQ 100 LB). Re-evaluation of the product may be required by the user at the time of disposal, since the product uses, transformations, mixtures, contamination, and spillage may change the classification.
- Disposal methods** Dispose of only in accordance with local, state, and federal regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.
- Empty containers.** Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14 TRANSPORT INFORMATION

- DOT** UN 1917, Ethyl acrylate, stabilized, 3, II
When shipped in quantities greater than 1,000 lbs, RQ must be added to the shipping description.
- IATA** UN 1917, Ethyl acrylate, stabilized, 3, II
When shipped in quantities greater than 1,000 lbs, RQ must be added to the shipping description.
- IMDG** UN 1917, Ethyl acrylate, stabilized, 3, II
When shipped in quantities greater than 1,000 lbs, RQ must be added to the shipping description.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Remarks no data available

SECTION 15 REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS**OSHA Hazards (HCS 1994)**

Flammable liquid, Irritant, Sensitiser

TSCA Inventory Listing**Components**

2-Propenoic acid, ethyl ester

CAS-No.

140-88-5

SARA 302 Status**Components****CAS-No.****Weight percent**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 311/312 Classification

"Fire hazard", "Immediate (acute) health hazard", "Delayed (chronic) health hazard"

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SARA 313 Chemical

Components

2-Propenoic acid, ethyl ester

CAS-No.

140-88-5

Weight percent

100 %

US. EPA CERCLA Hazardous Substances (40 CFR 302)

Components

2-Propenoic acid, ethyl ester

Reportable Quantity

1,000 LB

Weight percent

100 %

INTERNATIONAL REGULATIONS

WHMIS Classification

Class B, Division 2: Flammable liquid.

Class D, Division 2, Subdivision A: Very toxic material

Class D, Division 2, Subdivision B: Toxic material.

European Union

Classification according to Regulation (EU) 1272/2008.

Flammable liquids, Category 2

Acute toxicity (Dermal), Category 4

Acute toxicity (Inhalation), Category 3

Acute toxicity (Oral), Category 4

Carcinogenicity, Category 2

Skin irritation, Category 2

Eye irritation, Category 2

Skin sensitisation, Category 1

Specific target organ toxicity - single exposure, Category 3 (Resp. irritation)

Chronic aquatic toxicity, Category 3

Australia. Inventory of Chemical Substances (AICS)	Listed
Japan. Inventory of Existing and New Chemical Substances (ENCS)	Listed
Japan. Industrial Safety & Health Law (ISHL) Inventory	Listed
Canada. Domestic Substances List (DSL) Inventory	Listed
Canadian Non-Domestic Substance Listing (NDSL)	Not listed
European Inventory of Existing Commercial Chemical Substances (EINECS) Listing	Listed
Philippines. Inventory of Chemicals / Chemical Substances (PICCS)	Listed
Korea. Existing Chemicals Inventory (KECI)	Listed
China. Inventory of Existing Chemical Substances (IECSC)	Listed
Mexico. National Inventory of Chemical Substances (INSQ)	Listed
New Zealand. Inventory of Chemicals (NZIoC)	Listed



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Switzerland. Inventory of Notified New Substances (CHINV)	Listed
Taiwan. National Existing Chemical Inventory (NECI)	Listed

Please note: The names and CAS numbers which are used for this product in the stated inventories may deviate from the information which is listed in Section 3.

STATE REGULATIONS

California Prop. 65

Components

2-Propenoic acid, ethyl ester

CAS-No.

140-88-5

SECTION 16 OTHER INFORMATION

HAZARD RATINGS

	<u>Health</u>	<u>Flammability</u>	<u>Physical Hazard/ Instability</u>
HMIS®	2	3	2
NFPA	2	3	2

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