



The Power to Question

SAFETY DATA SHEET

Santa Cruz Biotechnology, Inc.

Revision date 29-Jan-2019

Version 1.1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Ethyl acrylate
Product Code SC-239918

Recommended use of the chemical and restrictions on use

For research use only. Not intended for diagnostic or therapeutic use.

Details of the supplier of the safety data sheet

Santa Cruz Biotechnology, Inc.
10410 Finnell Street
Dallas, TX 75220
831.457.3800
800.457.3801
scbt@scbt.com

Emergency telephone number

Chemtrec
1.800.424.9300 (Within USA)
+1.703.527.3887 (Outside USA)

2. HAZARDS IDENTIFICATION

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification

Acute toxicity - Oral Category 4
Acute toxicity - Dermal Category 4
Acute toxicity - Inhalation (Dusts/Mists) Category 4
Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2
Skin sensitization Category 1
Carcinogenicity Category 2
Flammable liquids Category 2

Label elements

Signal word Danger
Hazard statements Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction
Suspected of causing cancer
Highly flammable liquid and vapor

Symbols/Pictograms



Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves



Precautionary Statements - Response

Keep away from heat/sparks/open flames/hot surfaces. — No smoking
 Keep container tightly closed
 Ground/bond container and receiving equipment
 Use only non-sparking tools
 Take precautionary measures against static discharge
 IF exposed or concerned: Get medical advice/attention
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 If eye irritation persists: Get medical advice/attention
 Call a POISON CENTER or doctor/physician if you feel unwell
 If skin irritation or rash occurs: Get medical advice/attention
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 Wash contaminated clothing before reuse
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 Rinse mouth
 In case of fire: Use CO₂, dry chemical, or foam for extinction
 Store locked up Store in a well-ventilated place. Keep cool
 Dispose of contents/container to an approved waste disposal plant

Precautionary Statements - Storage
 Precautionary Statements - Disposal

Hazards not otherwise classified (HNOC)

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

Other hazards

Toxic to aquatic life with long lasting effects. Toxic to aquatic life.

NFPA	Health hazards	2
	Flammability	3
	Stability	0
	Physical and chemical properties	-



HMIS	Health hazards	2
	Flammability	3
	Physical hazards	0
	Personal protection	-

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS No 140-88-5
 Molecular Weight 100.12
 Formula C₅H₈O₂

Chemical name	CAS No.	Weight-%	Oral LD50	Dermal LD50	Inhalation LC50
Ethyl acrylate	140-88-5	>98	= 550 mg/kg (Rat)	= 1790 mg/kg (Rabbit) = 500 µL/kg (Rabbit)	= 1414 ppm (Rat) 4 h = 1410 ppm (Rat) 4 h
Monomethyl ether	150-76-5	<0.01	= 1600 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	-

4. FIRST AID MEASURES

First Aid Measures

General advice Immediate medical attention is required. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). If symptoms persist, call a physician.
 Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and



continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
Skin Contact
Wash off immediately with plenty of water. Wash contaminated clothing before reuse. If skin irritation persists, call a physician. Wash off immediately with soap and plenty of water. Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Inhalation
Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Call a physician. Artificial respiration and/or oxygen may be necessary. Immediate medical attention is not required. Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician.
Ingestion
Do NOT induce vomiting. Drink plenty of water. If symptoms persist, call a physician. Rinse mouth. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.
Self-protection of the first aider
Remove all sources of ignition. Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization of susceptible persons. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media No information available.

Specific hazards arising from the chemical

Specific hazards arising from the chemical In the event of fire and/or explosion do not breathe fumes. May cause sensitization by inhalation and skin contact. Thermal decomposition can lead to release of irritating and toxic gases and vapors. flammable.

Hazardous combustion products Carbon oxides.

Explosion data

Sensitivity to Mechanical Impact No information available.

Sensitivity to Static Discharge No information available.

Protective equipment and precautions for firefighters

Protective equipment and precautions for firefighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. Keep people away from and upwind of spill/leak.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up



Methods for containment
 Methods for cleaning up

Prevent further leakage or spillage if safe to do so.
 Pick up and transfer to properly labeled containers. Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Soak up with inert absorbent material.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Ensure adequate ventilation, especially in confined areas. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded. Use with local exhaust ventilation. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Store at 4 °C.

Incompatible materials

None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Other Information

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethyl acrylate 140-88-5	STEL: 15 ppm TWA: 5 ppm	TWA: 25 ppm TWA: 100 mg/m ³ (vacated) TWA: 5 ppm (vacated) TWA: 20 mg/m ³ (vacated) STEL: 25 ppm (vacated) STEL: 100 mg/m ³ (vacated) S* S*	IDLH: 300 ppm
Monomethyl ether 150-76-5	TWA: 5 mg/m ³	(vacated) TWA: 5 mg/m ³	TWA: 5 mg/m ³

NIOSH IDLH *Immediately Dangerous to Life or Health*

Appropriate engineering controls

Engineering Controls

Showers
 Eyewash stations
 Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection

Tight sealing safety goggles. Face protection shield.

Skin and Body Protection

Wear protective gloves and protective clothing.

Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations

When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.



9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	liquid
Appearance	No information available
Odor	Pungent

<u>Property</u>	<u>Values</u>
pH	No information available
Melting point/freezing point	-71 °C
Boiling point	99 °C
Flash point	8 °C CC (closed cup)
Liquid Density	0.92 g/mL
Evaporation rate	3.3
Upper flammability limits	12.1%
Lower flammability limit	1.8%
Vapor pressure	31 mmHg
Vapor density	3.5
Specific gravity	0.92
Water solubility	No information available
Solubility in other solvents	No information available
Partition coefficient	1.32
Autoignition temperature	382.8 °C
Decomposition temperature	No information available
Kinematic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

10. STABILITY AND REACTIVITY

Reactivity	Not applicable
Chemical stability	Stable under recommended storage conditions.
Possibility of Hazardous Reactions	None under normal processing.
Hazardous polymerization	No information available.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong oxidizing agents.
Hazardous Decomposition Products	Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation	No data available.
Eye contact	No data available.
Skin Contact	No data available.
Ingestion	No data available.

Information on toxicological effects

Symptoms	No information available.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity	Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure.
Target Organ Effects	Eyes, Respiratory system, Skin.
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.



Chemical name	ACGIH	IARC	NTP	OSHA
Ethyl acrylate 140-88-5	-	Group 2B	-	X

IARC (International Agency for Research on Cancer) Group 2B - Possibly Carcinogenic to Humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor) X - Present

Numerical measures of toxicity - Product Information

Unknown acute toxicity No information available

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	550 mg/kg
ATEmix (dermal)	1100 mg/kg
ATEmix (inhalation-dust/mist)	1.5 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects

Chemical name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
Ethyl acrylate 140-88-5	48: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50	10.0 - 22.0: 96 h <i>Leuciscus idus</i> mg/L LC50 static 2.31 - 2.7: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through 4.6: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50	-	7.9: 48 h <i>Daphnia magna</i> mg/L EC50
Monomethyl ether 150-76-5	-	28.5: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 flow-through 84.3: 96 h <i>Pimephales promelas</i> mg/L LC50 flow-through	-	-

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

Persistence and degradability No information available.

Bioaccumulation No information available.

Mobility No information available.

Chemical name	Partition coefficient
Ethyl acrylate 140-88-5	1.18
Monomethyl ether 150-76-5	1.3

13. DISPOSAL CONSIDERATIONS

Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Do not reuse container.

Other Information

Waste codes should be assigned by the user based on the application for which the product was used.

US EPA Waste Number

U113 D001

14. TRANSPORT INFORMATION

**DOT**

UN/ID no UN1917
 Hazard Class 3
 Packing Group II
 Proper shipping name Ethyl acrylate, stabilized
 Reportable Quantity (RQ) (Ethyl acrylate: RQ (kg)= 454.00)
 Description UN1917, Ethyl acrylate, stabilized, 3, II
 Emergency Response Guide Number 129P

IMDG

UN/ID no UN1917
 Hazard Class 3
 Packing Group II
 Proper shipping name Ethyl acrylate, stabilized
 Description UN1917, Ethyl acrylate, stabilized, 3, II, (8°C c.c.), Marine pollutant
 Special Provisions 386
 EmS-No F-E, S-D

IATA

UN/ID no UN1917
 Hazard Class 3
 Packing Group II
 Proper shipping name Ethyl acrylate, stabilized
 Description UN1917, Ethyl acrylate, stabilized, 3, II
 ERG Code 3i

15. REGULATORY INFORMATION**International Inventories**

All of the components in the product are on the following Inventory lists

TSCA (United States): Canada (DSL/NDSL) Europe (EINECS/ELINCS/NLP) Australia (AICS) South Korea (KECL): China (IECSC)
 ENCS (Japan): Philippines (PICCS)

Chemical name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Ethyl acrylate	X	X	-	X	-	X	X	X	X	X
Monomethyl ether	X	X	-	X	-	X	X	X	X	X

X - Listed

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute health hazard Yes
 Chronic Health Hazard No
 Fire hazard Yes
 Sudden release of pressure hazard No
 Reactive hazard No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40



CFR 122.42).

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical name	California Proposition 65
Ethyl acrylate - 140-88-5	Carcinogen

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Ethyl acrylate 140-88-5	X	X	X

16. OTHER INFORMATION

Revision note

No information available

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet