



The Power to Question

SAFETY DATA SHEET

Santa Cruz Biotechnology, Inc.

Revision date 16-Mar-2017

Version 1

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

Product identifier

Product Name 2-Propene-1-thiol
Product Code SC-225537

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
Flammable liquids Category 2

Label elements

Signal word Danger
Hazard statements Harmful if swallowed
Harmful in contact with skin
Harmful if inhaled
Highly flammable liquid and vapor

Symbols/Pictograms



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
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



Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 Call a POISON CENTER or doctor/physician if you feel unwell
 Wash contaminated clothing before reuse
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Call a POISON CENTER or doctor/physician if you feel unwell
 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 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

NFPA	Health hazards	0		HMIS	Health hazards	0
	Flammability	3			Flammability	3
	Stability	0			Physical hazards	0
	Physical and chemical properties	-			Personal protection	-

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS No 870-23-5
 Molecular Weight 74.14
 Formula C₃H₆S

Chemical Name	CAS No	Weight %	Oral LD50	Dermal LD50	Inhalation LC50
2-Propene-1-thiol	870-23-5	>98	-	-	-

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).
 Eye contact Wash with plenty of water.
 Skin Contact Wash off immediately with plenty of water.
 Inhalation Remove to fresh air If breathing is difficult, give oxygen If not breathing, give artificial respiration
 Ingestion Never give anything by mouth to an unconscious person. Clean mouth with water.
 Self-protection of the first aider Remove all sources of ignition.

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 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 None.

Specific hazards arising from the chemical

Specific hazards arising from the chemical No information available.

Hazardous combustion products Hydrogen sulfide. 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.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers.

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.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Store at -20 °C.

Incompatible materials None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters



Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).
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 No information available

Property

pH No information available
Melting point/freezing point No information available
Boiling point 69 °C
Flash point 21 °C
Density No information available
Evaporation rate No information available
Upper flammability limits No information available
Lower flammability limit No information available
Vapor pressure No information available
Vapor density No information available
Specific gravity No information available
Water solubility No information available
Solubility in other solvents No information available
Partition coefficient No information available
Autoignition temperature No information available
Decomposition temperature No information available
Kinematic viscosity No information available
Explosive properties No information available
Oxidizing properties No information available

Values

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 Hydrogen sulfide. 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	No information available.
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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)	500 mg/kg
ATEmix (dermal)	1100 mg/kg
ATEmix (inhalation-dust/mist)	1.5 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity	May cause long lasting harmful effects to aquatic life
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100% of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Persistence and degradability	No information available.
Bioaccumulation	No information available.
Mobility	No information available.

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.

14. TRANSPORT INFORMATION

DOT

UN/ID no	UN1228
Hazard Class	3
Subsidiary class	6.1
Packing Group	II
Proper shipping name	Mercaptans, liquid, flammable, toxic, n.o.s.
Description	UN1228, Mercaptans, liquid, flammable, toxic, n.o.s., 3 (6.1), II
Emergency Response Guide Number	131

IMDG

UN/ID no	UN1228
Hazard Class	3
Subsidiary hazard class	6.1



Packing Group II
 Proper shipping name Mercaptans, liquid, flammable, toxic, n.o.s.
 Description UN1228, Mercaptans, liquid, flammable, toxic, n.o.s., 3 (6.1), II, (21°C c.c.)
 Special Provisions 274
 EmS-No F-E, S-D

IATA Forbidden BY PASSENGER AIR
 UN/ID no UN1228
 Hazard Class 3
 Subsidiary hazard class 6.1
 Packing Group II
 Proper shipping name Mercaptan mixture, liquid, flammable, toxic, n.o.s.
 Description UN1228, Mercaptan mixture, liquid, flammable, toxic, n.o.s., 3 (6.1), II

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) Philippines (PICCS)

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
2-Propene-1-thiol	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 No
 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 does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations

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