

The Power to Question

SAFETY DATA SHEET

Santa Cruz Biotechnology, Inc.
Revision date 10-Dec-2014
Version 1

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

Product identifier

Product Name 2-Butanethiol Product Code SC-225253

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 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

Skin corrosion/irritation

Serious eye damage/eye irritation

Specific target organ toxicity (single exposure)

Flammable liquids

Category 2

Category 2

Category 3

Category 2

Label elements

Signal word Hazard statements

Symbols/Pictograms

Precautionary Statements - Prevention

Danger

Causes skin irritation
Causes serious eye irritation

May cause respiratory irritation. May cause drowsiness or dizziness

Highly flammable liquid and vapor



Wash face, hands and any exposed skin thoroughly after handling

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

Keep cool



Precautionary Statements - Response 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 If skin irritation 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

Call a POISON CENTER or doctor/physician if you feel unwell In case of fire: Use CO2, dry chemical, or foam for extinction Store in a well-ventilated place. Keep container tightly closed

Store locked up

Precautionary Statements - Disposal Dispose of contents/container to an approved waste disposal

plant

Hazards not otherwise classified (HNOC)

Hazards not otherwise classified (HNOC)

properties

Precautionary Statements - Storage

Not applicable

Other Information

Unknown acute toxicity

100% of the mixture consists of ingredient(s) of unknown toxicity.

NFPA Health hazards Flammability

3 Stability 0 Physical and chemical



2

HMIS

Health hazards Flammability 3 Physical hazards 0 Personal protection

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS No 513-53-1 Molecular Weight 90.19 Formula C₄H₁₀S

Chemical Name	CAS No	weight-%	Oral LD50	dermal LD50	Inhalation LC50
2-Butanethiol	513-53-1	>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).

Wash with plenty of water. Eve contact

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.

Remove all sources of ignition. Self-protection of the first aider

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

No information available.

chemical

Hazardous combustion products Hydrogen sulfide. Carbon oxides.

Explosion data

Sensitivity to Mechanical Impact
Sensitivity to Static Discharge
No information available.
No information available.

Protective equipment and precautions for firefighters

Protective equipment and precautions As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH

for firefighters

(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 Ens

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. Noxious vapor/odor.

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

room temperature.

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
2-Butanethiol	-	(vacated) TWA: 0.5 ppm	-
513-53-1		(vacated) TWA: 1.5 mg/m ³	

Appropriate engineering controls

Engineering Controls

Ensure adequate ventilation, especially in confined areas

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 Values

No information available Melting point/freezing point No information available 84 °C Boiling point

Flash point -23 °C CC (closed cup)

0.83 g/mL Density Evaporation rate No information available

Upper flammability limits No information available Lower flammability limit No information available Vapor pressure 142

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

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.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

No information available. Chronic Toxicity

Numerical measures of toxicity - Product Information

100% of the mixture consists of ingredient(s) of unknown toxicity Unknown acute toxicity

12. ECOLOGICAL INFORMATION

Ecotoxicity May cause long lasting harmful effects to aquatic life

100% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

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

13. DISPOSAL CONSIDERATIONS

Disposal should be in accordance with applicable regional, national and local laws and Disposal of wastes

regulations.

Contaminated packaging Do not reuse container.

14. TRANSPORT INFORMATION

DOT

UN/ID no UN2347 **Hazard Class** 3 Packing Group

Proper shipping name Butyl mercaptan

UN2347, Butyl mercaptan, 3, II Description

Emergency Response Guide Number 130

IMDG

UN/ID no UN2347 **Hazard Class**

Packing Group

Proper shipping name Butyl mercaptan

Description UN2347, Butyl mercaptan, 3, II, (-23°C c.c.)

A3, A6, IB2, T4, TP1 **Special Provisions**

EmS-No F-E, S-D

IATA

UN/ID no UN2347 **Hazard Class** 3 Packing Group Ш

Proper shipping name Butyl mercaptan

Description UN2347, Butyl mercaptan, 3, 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): ENCS (Japan):

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
2-Butanethiol	Х	=	X	Х	-	X	-	Х	-	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 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

Chemical Name	New Jersey	Massachusetts	Pennsylvania
2-Butanethiol	X	X	X
513-53-1			

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