



The Power to Question

# SAFETY DATA SHEET

Santa Cruz Biotechnology, Inc.

Revision date 18-Apr-2019

Version 1.1

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

### Product identifier

Product Name Ethylene glycol butyl ether  
Product Code SC-257516

### 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 2A
Flammable liquids	Category 4

### Label elements

Signal word	Warning
Hazard statements	Causes skin irritation Causes serious eye irritation

Symbols/Pictograms



Precautionary Statements - Prevention

Harmful in contact with skin  
Harmful if inhaled  
Harmful if swallowed  
Combustible liquid

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



## 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 ON SKIN: Wash with plenty of soap and water  
 Call a POISON CENTER or doctor/physician if you feel unwell  
 If skin irritation occurs: Get medical advice/attention  
 Take off contaminated clothing and wash 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  
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
 Rinse mouth  
 In case of fire: Use CO<sub>2</sub>, 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**

<b>NFPA</b>	Health hazards	2		<b>HMIS</b>	Health hazards	2
	Flammability	2			Flammability	2
	Stability	0			Physical hazards	0
	Physical and chemical properties	-			Personal protection	-

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

CAS No 111-76-2  
 Molecular Weight 118.17  
 Formula C<sub>6</sub>H<sub>14</sub>O<sub>2</sub>

Chemical name	CAS No.	Weight-%	Oral LD50	Dermal LD50	Inhalation LC50
Ethylene glycol butyl ether	111-76-2	>98	= 470 mg/kg ( Rat )	= 99 mg/kg ( Rabbit )	= 450 ppm ( Rat ) 4 h = 486 ppm ( Rat ) 4 h

**4. FIRST AID MEASURES****First Aid Measures**

General advice 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 contaminated clothing before reuse. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.  
 Inhalation Immediate medical attention is not required Move to fresh air in case of accidental inhalation of vapors If symptoms persist, call a physician Move to fresh air in case of accidental inhalation of vapors or decomposition products  
 Ingestion Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician. Do NOT induce vomiting.



Self-protection of the first aider      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      Treat symptomatically.

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**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

Suitable Extinguishing Media      Use. Dry chemical. Carbon dioxide (CO<sub>2</sub>). Water spray (fog). Alcohol resistant foam.  
Unsuitable Extinguishing Media      No information available.

**Specific hazards arising from the chemical**

Specific hazards arising from the chemical      Keep product and empty container away from heat and sources of ignition. Risk of ignition.  
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.

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**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

Personal precautions      Use personal protective equipment as required. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Pay attention to flashback. Take precautionary measures against static discharges.

**Environmental precautions**

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

**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      Soak up with inert absorbent material. Dam up. Pick up and transfer to properly labeled containers. Take precautionary measures against static discharges.

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**7. HANDLING AND STORAGE****Precautions for safe handling**

Advice on safe handling      Use with local exhaust ventilation. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. All equipment used when handling the product must be grounded. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).

**Conditions for safe storage, including any incompatibilities**

Storage Conditions	Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep containers tightly closed in a cool, well-ventilated place.
Incompatible materials	Keep in properly labeled containers. Keep away from heat. Store at room temperature. 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
Ethylene glycol butyl ether 111-76-2	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m <sup>3</sup> (vacated) TWA: 25 ppm (vacated) TWA: 120 mg/m <sup>3</sup> (vacated) S* S*	IDLH: 700 ppm TWA: 5 ppm TWA: 24 mg/m <sup>3</sup>

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

No information available

**Property****Values**

pH

No information available

Melting point/freezing point

-75 °C

Boiling point

169 °C

Flash point

67 °C CC (closed cup)

Liquid Density

0.90 g/mL

Evaporation rate

No information available

Upper flammability limits

12.7%

Lower flammability limit

1.1%

Vapor pressure

10 mmHg

Vapor density

4.08

Specific gravity

No information available

Water solubility

No information available



Solubility in other solvents	No information available
Partition coefficient	0.81
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	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	May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects. Avoid repeated exposure.
Target Organ Effects	Blood, Central nervous system, Eyes, Respiratory system, Kidney, Liver, Hematopoietic System, Skin.
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Ethylene glycol butyl ether 111-76-2	A3	Group 3	-	-

ACGIH (American Conference of Governmental Industrial Hygienists) A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer) Not classifiable as a human carcinogen

### 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)	470 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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Chemical name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
Ethylene glycol butyl ether 111-76-2	-	2950: 96 h Lepomis macrochirus mg/L LC50 1490: 96 h Lepomis macrochirus mg/L LC50 static	-	1698 - 1940: 24 h Daphnia magna mg/L EC50 1000: 48 h Daphnia magna mg/L EC50

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
Ethylene glycol butyl ether 111-76-2	0.81

### 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 Not regulated  
 IMDG Not regulated  
 IATA Not regulated

### 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
Ethylene glycol butyl 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 does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Ethylene glycol butyl ether 111-76-2	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**