



The Power to Question

# SAFETY DATA SHEET

Santa Cruz Biotechnology, Inc.

Revision date 19-Sep-2018

Version 1

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

### Product identifier

Product Name Diethylene glycol  
Product Code SC-214888

### 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  
Acute toxicity - Inhalation (Dusts/Mists)  
Specific target organ toxicity (repeated exposure)

Category 4  
Category 4  
Category 2

### Label elements

Signal word  
Hazard statements

Warning  
May cause damage to organs through prolonged or repeated exposure

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

Use only outdoors or in a well-ventilated area

Do not breathe dust/fume/gas/mist/vapors/spray

Get medical advice/attention if you feel unwell

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

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

### Hazards not otherwise classified (HNOC)

Hazards not otherwise classified (HNOC)

Not applicable

### Other Information



|             |                                  |   |  |             |                     |   |
|-------------|----------------------------------|---|--|-------------|---------------------|---|
| <b>NFPA</b> | Health hazards                   | 1 |  | <b>HMIS</b> | Health hazards      | 1 |
|             | Flammability                     | 1 |  |             | Flammability        | 1 |
|             | Stability                        | 0 |  |             | Physical hazards    | 0 |
|             | Physical and chemical properties | - |  |             | Personal protection | - |

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS No 111-46-6  
 Molecular Weight 106.12  
 Formula C<sub>4</sub>H<sub>10</sub>O<sub>3</sub>

| Chemical name     | CAS No.  | Weight-% | Oral LD50             | Dermal LD50              | Inhalation LC50                      |
|-------------------|----------|----------|-----------------------|--------------------------|--------------------------------------|
| Diethylene glycol | 111-46-6 | >98      | = 12565 mg/kg ( Rat ) | = 11890 mg/kg ( Rabbit ) | > 4600 mg/m <sup>3</sup> ( Rat ) 4 h |

### 4. FIRST AID MEASURES

#### First Aid Measures

General advice Consult a physician if necessary. Remove to fresh air.  
 Eye contact Wash with plenty of water.  
 Skin Contact Wash skin with soap and 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.

#### 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 No information available.

#### Specific hazards arising from the chemical

Specific hazards arising from the chemical No information available.

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

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### Personal precautions, protective equipment and emergency procedures

Personal precautions                      Ensure adequate ventilation, especially in confined areas.

### Environmental precautions

Environmental precautions                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                 Pick up and transfer to properly labeled containers.

## 7. HANDLING AND STORAGE

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### Precautions for safe handling

Advice on safe handling                 Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

Storage Conditions                        May form explosive peroxides. Protect from moisture. Store at room temperature.  
 Incompatible materials                 None known based on information supplied.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### 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        Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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Physical State                                liquid  
 Appearance                                 No information available  
 Odor    No information available

### Property

pH    No information available  
 Melting point/freezing point            -10 °C

### Values



|                              |                          |
|------------------------------|--------------------------|
| Boiling point                | 245 °C                   |
| Flash point                  | 143 °C CC (closed cup)   |
| Liquid Density               | 1.12 g/mL                |
| Evaporation rate             | No information available |
| Upper flammability limits    | 12.3%                    |
| Lower flammability limit     | 2%                       |
| Vapor pressure               | 0.01 mmHg                |
| Vapor density                | 3.66                     |
| Specific gravity             | No information available |
| Water solubility             | No information available |
| Solubility in other solvents | No information available |
| Partition coefficient        | No information available |
| Autoignition temperature     | 372 °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                 | May form explosive peroxides.                       |
| Possibility of Hazardous Reactions | None under normal processing.                       |
| Hazardous polymerization           | No information available.                           |
| Conditions to avoid                | Exposure to air or moisture over prolonged periods. |
| 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. |
|----------|---------------------------|

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

|                  |                           |
|------------------|---------------------------|
| Chronic Toxicity | No information available. |
|------------------|---------------------------|

### 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)  | 11890 mg/kg              |
| ATEmix (inhalation-dust/mist)  | 4.6 mg/l                 |

## 12. ECOLOGICAL INFORMATION

|             |  |
|-------------|--|
| Ecotoxicity | May cause long lasting harmful effects to aquatic life |
|-------------|--|



| Chemical name                 | Algae/aquatic plants | Fish   | Toxicity to Microorganisms | Crustacea                           |
|-------------------------------|----------------------|--|----------------------------|-------------------------------------|
| Diethylene glycol<br>111-46-6 | -                    | 75200: 96 h Pimephales promelas mg/L LC50 flow-through | -                          | 84000: 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 |
|-------------------------------|-----------------------|
| Diethylene glycol<br>111-46-6 | -1.98                 |

### 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 |
|-------------------|------|-----|------|--------|--------|------|-------|------|-------|------|
| Diethylene glycol | 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**

