



The Power to Question

# SAFETY DATA SHEET

Santa Cruz Biotechnology, Inc.

Revision date 08-Jun-2018

Version 1.2

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

### Product identifier

Product Name Benzethonium hydroxide solution  
Product Code SC-280610

### 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 3  
Acute toxicity - Dermal Category 3  
Acute toxicity - Inhalation (Dusts/Mists) Category 3  
Flammable liquids Category 2  
Corrosive to metals Category 1

### Label elements

Signal word Danger

Symbols/Pictograms

Highly flammable liquid and vapor  
May be corrosive to metals



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  
Keep only in original container  
Keep cool



## 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 SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
 Rinse mouth  
 In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction  
 Absorb spillage to prevent material damage  
 Store in corrosive resistant container with a resistant inner liner  
 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

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

Unknown acute toxicity

50% of the mixture consists of ingredient(s) of unknown toxicity.

**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	498-77-1
Molecular Weight	429.64
Formula	C <sub>27</sub> H <sub>43</sub> NO <sub>3</sub>

Chemical name	CAS No.	Weight-%	Oral LD50	Dermal LD50	Inhalation LC50
Methanol	67-56-1	30 - 60	= 6200 mg/kg ( Rat )	= 15840 mg/kg ( Rabbit ) = 15800 mg/kg ( Rabbit )	= 22500 ppm ( Rat ) 8 h = 64000 ppm ( Rat ) 4 h
Benzethonium hydroxide	498-77-1	30 - 60	-	-	-

**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

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. Call a physician immediately.

Skin Contact

Wash off immediately with plenty of water.

Inhalation

Immediate medical attention is required Remove to fresh air If not breathing, give artificial respiration Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation

Ingestion

Do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Drink plenty of 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.

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**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. Nitrogen oxides (NOx).

**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 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. Cover powder spill with plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.

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.

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**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 4



Incompatible materials °C.  
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
Methanol 67-56-1	STEL: 250 ppm TWA: 200 ppm S*	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> (vacated) TWA: 200 ppm (vacated) TWA: 260 mg/m <sup>3</sup> (vacated) STEL: 250 ppm (vacated) STEL: 325 mg/m <sup>3</sup> (vacated) S*	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> STEL: 250 ppm STEL: 325 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.  
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

<u>Property</u>	<u>Values</u>
pH	No information available
Melting point/freezing point	No information available
Boiling point	64 °C
Flash point	11 °C CC (closed cup)
Liquid Density	0.94 g/mL
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

## 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. Nitrogen oxides (NOx).

## 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.
Target Organ Effects	Gastrointestinal tract (GI), Central nervous system, Eyes, Respiratory system, Skin.

### Numerical measures of toxicity - Product Information

Unknown acute toxicity	50% of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document	
ATEmix (oral)	100 mg/kg
ATEmix (dermal)	300 mg/kg
ATEmix (inhalation-dust/mist)	0.5 mg/l
ATEmix (inhalation-vapor)	83.2

## 12. ECOLOGICAL INFORMATION

Ecotoxicity	Harmful to aquatic life with long lasting effects
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Chemical name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
Methanol 67-56-1	-	28200: 96 h Pimephales promelas mg/L LC50 flow-through 100: 96 h Pimephales promelas mg/L LC50 static 13500 - 17600: 96 h Lepomis macrochirus mg/L LC50 flow-through 18 - 20: 96 h Oncorhynchus mykiss mL/L LC50 static 19500 - 20700: 96 h	-	-



		Oncorhynchus mykiss mg/L LC50 flow-through	
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50% 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.

Chemical name	Partition coefficient
Methanol 67-56-1	-0.77

### 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 U154  
 California Hazardous Waste Status This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical name	California Hazardous Waste Status
Methanol 67-56-1	Toxic Ignitable

### 14. TRANSPORT INFORMATION

**DOT**

UN/ID no UN3286  
 Hazard Class 3  
 Subsidiary class 6.1, 8  
 Packing Group II  
 Proper shipping name Flammable liquid, toxic, corrosive, n.o.s.  
 Reportable Quantity (RQ) (Methanol: RQ (kg)= 2270.00)  
 Description UN3286, Flammable liquid, toxic, corrosive, n.o.s. (Methanol), 3 (6.1, 8), II  
 Emergency Response Guide Number 131

**IMDG**

UN/ID no UN3286  
 Hazard Class 3  
 Subsidiary hazard class 6.1, 8  
 Packing Group II  
 Proper shipping name Flammable liquid, toxic, corrosive, n.o.s.  
 Description UN3286, Flammable liquid, toxic, corrosive, n.o.s. (Methanol), 3 (6.1, 8), II, (11°C c.c.)  
 Special Provisions 274  
 EmS-No F-E, S-C

**IATA**

UN/ID no UN3286  
 Hazard Class 3  
 Subsidiary hazard class 6.1, 8  
 Packing Group II  
 Proper shipping name Flammable liquid, toxic, corrosive, n.o.s.  
 Description UN3286, Flammable liquid, toxic, corrosive, n.o.s. (Methanol), 3 (6.1, 8), II



ERG Code 3CP

## 15. REGULATORY INFORMATION

### International Inventories

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

No information available

Chemical name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Methanol	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
Methanol - 67-56-1	Developmental

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

Chemical name	New Jersey	Massachusetts	Pennsylvania
Methanol 67-56-1	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



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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**