

# Dodecyltrimethylammonium bromide: sc-239839



The Power to Question

## MATERIAL SAFETY DATA SHEET

### 1 Identification of substance:

**Product Name:** Dodecyltrimethylammonium bromide  
**Catalog Number:** sc-239839  
**Supplier:** Santa Cruz Biotechnology, Inc.  
2145 Delaware Avenue  
Santa Cruz, California 95060  
800.457.3801 or 831.457.3800  
**Emergency:** ChemWatch  
Within the US & Canada: 877-715-9305  
Outside the US & Canada: +800 2436 2255  
(1-800-CHEMCALL) or call +613 9573 3112

### 2 Hazards identification

#### Classification of the substance or mixture



GHS06 Skull and crossbones

H301 Toxic if swallowed.



GHS09 Environment

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.



GHS07

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

#### Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xn; Harmful

R22: Harmful if swallowed.



Xi; Irritant

R36/37/38: Irritating to eyes, respiratory system and skin.



N; Dangerous for the environment

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### Label elements

##### Labelling according to EU guidelines:

##### Code letter and hazard designation of product:

Xn Harmful

N Dangerous for the environment

##### Risk phrases:

22 Harmful if swallowed.

36/37/38 Irritating to eyes, respiratory system and skin.

50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

##### Safety phrases:

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

36/37 Wear suitable protective clothing and gloves.

57 Use appropriate container to avoid environmental contamination.

**Hazard description:**  
**WHMIS classification**



**Classification system**

**HMIS ratings (scale 0-4)**  
**(Hazardous Materials Identification System)**

HEALTH	2
FIRE	1
REACTIVITY	1

Health (acute effects) = 2  
Flammability = 1  
Reactivity = 1

**Other hazards**

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

### 3 Composition/information on ingredients

**Chemical characterization: Substances**

**(CAS#) Description:**

Dodecyltrimethylammonium bromide  
(CAS# 1119-94-4)

### 4 First aid measures

**Description of first aid measures**

**After inhalation**

Supply fresh air. If required, provide artificial respiration. Keep patient warm.  
Seek immediate medical advice.

**After skin contact**

Immediately wash with water and soap and rinse thoroughly.  
Seek immediate medical advice.

**After eye contact**

Rinse opened eye for several minutes under running water. Then consult a doctor.

**After swallowing** Seek immediate medical advice.

### 5 Firefighting measures

**Extinguishing media**

**Suitable extinguishing agents**

Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Special hazards arising from the substance or mixture**

In case of fire, the following can be released:

Hydrogen bromide (HBr)

Nitrogen oxides (NOx)

Carbon monoxide and carbon dioxide

**Advice for firefighters**

**Protective equipment:**

Wear self-contained respirator.

Wear fully protective impervious suit.

### 6 Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

**Environmental precautions:**

Do not allow material to be released to the environment without proper governmental permits.

**Methods and material for containment and cleaning up:**

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

**Reference to other sections**

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

### 7 Handling and storage

**Handling**

**Precautions for safe handling**

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation at the workplace.

**Information about protection against explosions and fires:** No special measures required.

Conditions for safe storage, including any incompatibilities

**Storage**

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility:

Store away from water/moisture.

Store away from oxidizing agents.

Further information about storage conditions:

This product is hygroscopic.

Keep container tightly sealed. Store at room temperature.

Store in cool, dry conditions in well sealed containers.

Protect from humidity and water.

## 8 Exposure controls/personal protection

Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Control parameters

Components with limit values that require monitoring at the workplace: Not required.

Additional information: No data

Exposure controls

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

**Breathing equipment:** Use suitable respirator when high concentrations are present.

**Protection of hands:** Impervious gloves

**Eye protection:**

Safety glasses

Tightly sealed goggles

Full face protection

**Body protection:** Protective work clothing.

## 9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form:	Powder
Formula:	C15H34BrN
Weight:	308.34

pH-value: Not applicable.

Change in condition

Melting point/Melting range:	246°C (475 °F)
Boiling point/Boiling range:	Not determined
Sublimation temperature / start:	Not determined

Flash point: Not applicable

Flammability (solid, gaseous) Not determined.

Ignition temperature: Not determined

Decomposition temperature: Not determined

Auto igniting: Not determined.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower:	Not determined
Upper:	Not determined

Vapor pressure: Not applicable.

Density: Not determined

Relative density Not determined.

Vapour density Not applicable.

Evaporation rate Not applicable.

Segregation coefficient (n-octanol/water): Not determined.

Viscosity:

dynamic: Not applicable.

kinematic: Not applicable.

Other information No further relevant information available.

## 10 Stability and reactivity

### Reactivity

#### Chemical stability

#### Thermal decomposition / conditions to be avoided:

Decomposition will not occur if used and stored according to specifications.

**Possibility of hazardous reactions** No dangerous reactions known

#### Incompatible materials:

Water/moisture

Oxidizing agents

#### Hazardous decomposition products:

Hydrogen bromide

Nitrogen oxides

Carbon monoxide and carbon dioxide

## 11 Toxicological information

### Information on toxicological effects

#### Acute toxicity:

#### LD/LC50 values that are relevant for classification:

Oral	LD50	200-2000 mg/kg (rat)
Dermal	LDLo	800 mg/kg (rabbit)

#### Primary irritant effect:

**on the skin:** Irritant to skin and mucous membranes.

**on the eye:** Irritating effect.

**Sensitization:** No sensitizing effects known.

#### Subacute to chronic toxicity:

Inorganic bromides may produce depression, emaciation and in severe cases, psychosis and mental deterioration. Bromoderma, a bromide rash, often occurs when bromide inhalation or administration is prolonged. This rash is usually found on the face and resembles acne and furunculosis.

#### Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

## 12 Ecological information

### Toxicity

**Aquatic toxicity:** No further relevant information available.

**Persistence and degradability** No further relevant information available.

#### Behavior in environmental systems:

**Bioaccumulative potential** No further relevant information available.

**Mobility in soil** No further relevant information available.

#### Ecotoxicological effects:

**Remark:** Very toxic for aquatic organisms

#### Additional ecological information:

#### General notes:

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Do not allow material to be released to the environment without proper governmental permits.

Very toxic for aquatic organisms

#### Results of PBT and vPvB assessment

**PBT:** Not applicable.

**vPvB:** Not applicable.

**Other adverse effects** No further relevant information available.

## 13 Disposal considerations

### Waste treatment methods

**Recommendation** Consult state, local or national regulations to ensure proper disposal.

#### Uncleaned packagings:

**Recommendation:** Disposal must be made according to official regulations.

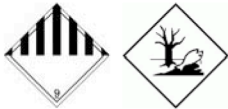
## 14 Transport information

### DOT regulations:



**Hazard class:** 9  
**Identification number:** UN3077  
**Packing group:** III  
**Proper shipping name (technical name):** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(n-Dodecyl trimethylammonium bromide)  
**Label** 9

### Land transport ADR/RID (cross-border)



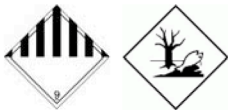
**ADR/RID class:** 9 (M7) Miscellaneous dangerous substances and articles  
**Danger code (Kemler):** 90  
**UN-Number:** 3077  
**Packaging group:** III  
**Special marking:** Symbol (fish and tree)  
**UN proper shipping name:** 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (n-Dodecyl trimethylammonium bromide)

### Maritime transport IMDG:



**IMDG Class:** 9  
**UN Number:** 3077  
**Label** 9  
**Packaging group:** III  
**Marine pollutant:** No  
**Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(n-Dodecyl trimethylammonium bromide)

### Air transport ICAO-TI and IATA-DGR:



**ICAO/IATA Class:** 9  
**UN/ID Number:** 3077  
**Label** 9  
**Special marking:** Symbol (fish and tree)  
**Packaging group:** III  
**Proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(n-Dodecyl trimethylammonium bromide)

**UN "Model Regulation":** UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., 9, III  
**Special precautions for user** Warning: Miscellaneous dangerous substances and articles  
**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

## 15 Regulatory information

*Safety, health and environmental regulations/legislation specific for the substance or mixture*

*Product related hazard informations:*

*Hazard symbols:*

*Xn Harmful*

*N Dangerous for the environment*

*Risk phrases:*

*22 Harmful if swallowed.*

*36/37/38 Irritating to eyes, respiratory system and skin.*

*50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment*

*Safety phrases:*

*26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.*

*36/37 Wear suitable protective clothing and gloves.*

*57 Use appropriate container to avoid environmental contamination.*

*National regulations*

*All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.*

*All components of this product are listed on the Canadian Non-Domestic Substances List (NDSL).*

*Information about limitation of use: For use only by technically qualified individuals.*

*Chemical safety assessment: A Chemical Safety Assessment has not been carried out.*

## 16 Other information:

*The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.*

5/16/2013