

# Benzonatate: sc-207327



*The Power to Question*

## MATERIAL SAFETY DATA SHEET

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### 1. Product information

**Product Name:** Benzonatate  
**Catalog number:** sc-207327  
**Synonyms:** 4-(Butylamino)benzoic Acid 3,6,9,12,15,18,21,24,27-Nonaoxaoctacos-1-yl Ester  
**Supplier:** Santa Cruz Biotechnology, Inc.  
2145 Delaware Avenue  
Santa Cruz, CA 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. Composition/information on ingredients

**CAS Number:** 104-31-4  
**Formula:** C<sub>30</sub>H<sub>53</sub>NO<sub>11</sub>  
**Molecular Weight:** 603.74  
**Chemical name:** Benzonatate

### 3. Hazard identification

#### Emergency overview

Warning: Causes eye, skin and respiratory tract irritation.  
Harmful if swallowed.  
Contains materials that may adversely effect the developing fetus.  
May cause sensitization by inhalation.  
May cause sensitization by skin contact.  
Avoid inhalation of mists/vapors.  
Avoid contact with the skin, eyes and clothing.  
Wear chemical resistant protective gloves.  
Wear NIOSH-certified chemical goggles.  
Wear protective clothing.  
Eye wash fountains and safety showers must be easily accessible.

#### Potential health effects

##### Primary routes of exposure

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

**Acute toxicity:** Harmful if swallowed.

**Irritation:** Irritating to eyes, respiratory system and skin.

**Sensitization:** May cause sensitization by inhalation and skin contact.

#### Potential environmental effects

**Aquatic toxicity:** The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

### 4. First-aid measures

#### General advice:

Remove contaminated clothing.

**If inhaled:** Keep patient calm, remove to fresh air, seek medical attention. After inhalation of decomposition products: Inhale corticosteroid dose aerosol.

**If on skin:** Wash thoroughly with soap and water. If irritation develops, seek medical attention.

**If in eyes:** Wash affected eyes for at least 15 minutes under running water with eyelids held open. If irritation develops, seek medical attention.

**If swallowed:** Rinse mouth immediately and then drink plenty of water, seek medical attention.

**Note to physician**

**Treatment:** Treat according to symptoms (decontamination, vital functions), no known specific antidote, administer corticosteroid dose aerosol to prevent pulmonary edema.

## **5. Fire-fighting measures**

**Flammability:** does not ignite

**Suitable extinguishing media:**

carbon dioxide, dry powder, water, alcohol-resistant foam

**Unsuitable extinguishing media for safety reasons:**

water jet

**Hazards during fire-fighting:**

carbon monoxide, carbon dioxide, nitrogen oxides, toxic gases/vapors

The substances/groups of substances mentioned can be released in case of fire.

**Protective equipment for fire-fighting:**

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

**Further information:**

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. In case of fire and/or explosion do not breathe fumes.

**NFPA Hazard codes:**

**Health:** 2

**Fire:** 0

**Reactivity:** 0

**Special:** no data available

## **6. Accidental release measures**

**Personal precautions:**

Ensure adequate ventilation. Avoid inhalation. Avoid contact with the skin, eyes and clothing. Information regarding personal protective measures see, chapter 8.

**Environmental precautions:**

Do not discharge into drains/surface waters/groundwater.

**Cleanup:**

Dispose of absorbed material in accordance with regulations.

**For large amounts:** Dike spillage. Pump off product.

**For residues:** Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).

## **7. Handling and storage**

**Handling**

**General advice:**

Avoid aerosol formation. Avoid inhalation of dusts/mists/vapors. Ensure thorough ventilation of stores and work areas. Product should be worked up in closed equipment as far as possible.

**Protection against fire and explosion:**

Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy. Vapors may form explosive mixture with air.

**Storage**

**General advice:**

Keep container tightly closed and dry. Keep away from heat. Protect from the effects of light. Protect against moisture. Keep under nitrogen. Store at -20 °C.

## 8. Exposure controls and personal protection

### Advice on system design:

Ensure adequate ventilation.

### Personal protective equipment

#### Respiratory protection:

Breathing protection if gases/vapors are formed. Wear a NIOSH-certified (or equivalent) organic vapor/particulate respirator.

#### Hand protection:

Chemical resistant protective gloves

#### Eye protection:

Tightly fitting safety goggles (chemical goggles).

#### Body protection:

Body protection must be chosen based on level of activity and exposure.

### General safety and hygiene measures:

Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapors. Females of childbearing age should not come into contact with the product. Under no circumstances should the product come into contact with the skin of pregnant women or be inhaled by them. Remove contaminated clothing immediately and dispose of safely. Keep separated from food stuffs and feed stocks. No eating, drinking, smoking or tobacco use at the place of work.

## 9. Physical and chemical properties

Form	viscous liquid	Odor	characteristic
pH value	5.0 - 8.5 ( 10 g/l)	Boiling point	> 300 °C
Density	1.101 g/cm <sup>3</sup> ( 20 °C)	Solubility in water	1/200 g/l at (20 °C)
Partitioning coefficient	log Pow 2.45 - 2.5	Solubility (qualitative)	soluble
n-octanol/water		solvent	Toluene, Ethanol, Methanol

## 10. Stability and reactivity

### Conditions to avoid:

Avoid moisture.

### Substances to avoid:

acids, alkalies, oxidizing agents, reducing agents, water

### Decomposition products:

Hazardous decomposition products: carbon monoxide, carbon dioxide, nitrogen oxides, toxic gases/vapors

### Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

## 11. Toxicological information

### Acute toxicity

**Oral:** LD50/mouse: 400 mg/kg

**Skin irritation:** Non corrosive. (Epiderm Corrosivity Test)

### Chronic toxicity

#### Genetic toxicity:

The substance was not mutagenic in bacteria.

#### Other information:

Caution - substance not yet fully tested.

Females of childbearing age should not come into contact with the product.

Possible risk of harm to the unborn child.

May cause harm to breastfed babies.

## 12. Ecological information

### Environmental fate and transport

#### Biodegradation:

Test method: OECD 301 A (new version) (aerobic), activated sludge, domestic  
Method of analysis: DOC reduction  
Degree of elimination: 10 - 20 % (28 d)  
Evaluation: Not readily biodegradable (by OECD criteria).  
Poorly biodegradable.  
Not readily biodegradable (by OECD criteria).

#### Bioaccumulation:

No significant accumulation in organisms is expected as a result of the distribution coefficient of n-octanol/water (log Pow).

### Environmental toxicity

#### Toxicity to microorganisms:

DIN EN ISO 8192-OECD 209-88/302/EEC, P. C aquatic  
activated sludge, domestic/EC20 (180 min): > 1,000 mg/l  
The details of the toxic effect relate to the nominal concentration.

#### Other ecotoxicological advice:

Caution - substance not yet fully tested.

## 13. Disposal considerations

Waste disposal of substance:  
Observe national and local legal requirements.

## 14. Transport information

### Land transport

#### US DOT

Not classified as a dangerous good under transport regulations

### Sea transport

#### IMDG

Not classified as a dangerous good under transport regulations

### Air transport

#### IATA/CAO

Not classified as a dangerous good under transport regulations

## 15. Regulatory information

### Federal Regulations

#### Registration status:

TSCA, US released / exempt  
OSHA hazard category: Acute target organ effects reported, Skin and/or eye irritant, Toxic - oral  
SARA hazard categories (EPCRA 311/312): Acute

## 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.*

4/11/2012