

# Crotonic acid: sc-239583



The Power to Question

## MATERIAL SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Crotonic acid  
**Product Number:** sc-239583  
**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. HAZARDS IDENTIFICATION

#### Emergency Overview

#### OSHA Hazards

Toxic by ingestion, Corrosive

#### GHS Classification

Acute toxicity, Dermal (Category 4)

Acute toxicity, Oral (Category 4)

Skin corrosion (Category 1B)

Serious eye damage (Category 1)

#### GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

#### Hazard statement(s)

H302 + H312

Harmful if swallowed or in contact with skin.

H314

Causes severe skin burns and eye damage.

#### Precautionary statement(s)

P280

Wear protective gloves/ protective clothing/ eye protection/ face protection.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310

Immediately call a POISON CENTER or doctor/ physician.

#### HMIS Classification

**Health hazard:** 3

**Flammability:** 0

**Physical hazards:** 0

#### NFPA Rating

**Health hazard:** 3

**Fire:** 2

**Reactivity Hazard:** 0

#### Potential Health Effects

**Inhalation** May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

**Skin** May be harmful if absorbed through skin. Causes skin burns.

**Eyes** Causes eye burns.

**Ingestion** Toxic if swallowed.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Formula:** C<sub>4</sub>H<sub>6</sub>O<sub>2</sub>  
**Molecular Weight:** 86.09  
**Synonyms:** trans-2-Butenoic acid

<i>CAS-No.</i>	<i>EC-No.</i>	<i>Index-No.</i>	<i>Concentration</i>
<b>Crotonic acid</b> 107-93-7	203-533-9	-	-

### 4. FIRST AID MEASURES

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

#### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 5. FIREFIGHTING MEASURES

#### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

#### Hazardous combustion products

Hazardous decomposition products formed under fire conditions: carbon oxides

### 6. ACCIDENTAL RELEASE MEASURES

#### Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

#### Environmental precautions

Do not let product enter drains.

#### Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### 7. HANDLING AND STORAGE

#### Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

#### Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

### Personal protective equipment

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

#### Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin and body protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Form	flakes	pH	no data available
Boiling point	180 - 181 °C - lit.	Flash point	88 °C closed cup
Ignition temperature	396 °C	Lower explosion limit	2.2 % (V)
Vapor pressure	0.25 hPa at 20 °C	Upper explosion limit	15.1 % (V)
Density	1.027 g/cm <sup>3</sup> at 25 °C	Water solubility	soluble
Relative vapor density	no data available	Odor	no data available
Odor Threshold	no data available	Evaporation rate	no data available
Auto-ignition temperature	no data available	Partition coefficient	no data available
Melting point	70 - 72 °C - lit.	n-octanol/water	
Freezing point	no data available		

## 10. STABILITY AND REACTIVITY

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

no data available

### Conditions to avoid

no data available

### Materials to avoid

Bases, Oxidizing agents, Reducing agents

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions: carbon oxides

### Other decomposition products

no data available

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

**Oral LD50** - rat - 400 - 800 mg/kg

**Inhalation LC50** no data available

**Dermal LD50** no data available

**Other information on acute toxicity** no data available

### Skin corrosion/irritation

Skin - guinea pig - Severe skin irritation

### Serious eye damage/eye irritation

Eyes - rabbit - Severe eye irritation

### Respiratory or skin sensitization

no data available

### Germ cell mutagenicity

Genotoxicity in vitro - Human - lymphocyte Sister chromatid exchange

### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

### Reproductive toxicity

no data available

### Teratogenicity

no data available

### Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

### Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

### Aspiration hazard

no data available

### Potential health effects

**Inhalation** May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

**Ingestion** Toxic if swallowed.

**Skin** May be harmful if absorbed through skin. Causes skin burns.

**Eyes** Causes eye burns.

### Signs and Symptoms of Exposure

Cough, Shortness of breath, Headache, Nausea, Vomiting

### Synergistic effects

no data available

### Additional Information

**RTECS:** GQ2900000

## 12. ECOLOGICAL INFORMATION

### Toxicity

no data available

### Bioaccumulative potential

no data available

### PBT and vPvB assessment

no data available

### Persistence and degradability

no data available

### Mobility in soil

no data available

### Other adverse effects

no data available

