

# Boric Acid: sc-202083



The Power to Question

## MATERIAL SAFETY DATA SHEET

### 1 Identification of substance:

**Product Name:** Boric Acid  
**Catalog Number:** sc-202083  
**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**  
**Classification according to Regulation (EC) No 1272/2008**



GHS08 Health hazard

Repr. 1B H360 May damage fertility or the unborn child.

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



T; Toxic

R60-61: May impair fertility. May cause harm to the unborn child.  
**Information concerning particular hazards for human and environment: Not applicable**

#### Label elements

**Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation.

#### Hazard pictograms



GHS08

**Signal word** Danger

#### Hazard statements

H360 May damage fertility or the unborn child.

#### Precautionary statements

P201 Obtain special instructions before use.

P308+P313 IF exposed or concerned: Get medical advice/attention.

#### Hazard description:

#### WHMIS classification

D2A - Very toxic material causing other toxic effects



#### Classification system

**HMIS ratings (scale 0-4)**

(Hazardous Materials Identification System)

HEALTH	1
FIRE	0
REACTIVITY	1

Health (acute effects) = 1

Flammability = 0

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:**

10043-35-3 Boric acid

**Identification number(s):**

**EC number:** 233-139-2

**Index number:** 005-007-00-2

**SVHC**

10043-35-3	Boric acid
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### 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 medical treatment.

**Information for doctor**

**Most important symptoms and effects, both acute and delayed**

No further relevant information available.

**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### 5 Firefighting measures

**Extinguishing media**

**Suitable extinguishing agents**

Product is not flammable. Use fire fighting measures that suit the surrounding fire.

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

If this product is involved in a fire, the following can be released:

Boron oxide

**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.

**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.

Open and handle container with care.

**Information about protection against explosions and fires:** The product is not flammable

**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 oxidizing agents.

**Further information about storage conditions:**

Keep container tightly sealed. Store at room temperature.

Store in cool, dry conditions in well sealed containers.

**Specific end use(s)** No further relevant information available.

### 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:	
10043-35-3 Boric acid (100.0%)	
TLV (USA)	Short-term value: 6* mg/m <sup>3</sup> Long-term value: 2* mg/m <sup>3</sup> *as inhalable fraction
EL (Canada)	Short-term value: 6 mg/m <sup>3</sup> Long-term value: 2 mg/m <sup>3</sup>
EV (Canada)	Short-term value: 6 mg/m <sup>3</sup> Long-term value: 2 mg/m <sup>3</sup> inorganic, inhalable

**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.

Store protective clothing separately.

Maintain an ergonomically appropriate working environment.

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

#### Protection of hands:

Impervious gloves

Check protective gloves prior to each use for their proper condition.

The selection of suitable gloves not only depends on the material, but also on quality.

Quality will vary from manufacturer to manufacturer.

**Eye protection:** Safety glasses

**Body protection:** Protective work clothing.

## 9 Physical and chemical properties

### Information on basic physical and chemical properties

#### General Information

##### Appearance:

**Form:** Powder or granules

**Formula:** BH3O3

**Weight:** 61.8

**pH-value (33 g/l) at 20°C (68 °F):** 3.8-4.8

##### Change in condition

**Melting point/Melting range:** ≈185(dec) °C (≈365(dec) °F)

**Boiling point/Boiling range:** Not determined

**Sublimation temperature / start:** Not determined

**Flammability (solid, gaseous)** Not determined.

**Ignition temperature:** Not determined

**Decomposition temperature:** Not determined

**Auto igniting:** Not determined.

##### Explosion limits:

**Lower:** Not determined

**Upper:** Not determined

**Vapor pressure:** Not applicable.

**Density at 20°C (68 °F):** 1.435 g/cm<sup>3</sup> (11.975 lbs/gal)

**Relative density** Not determined.

**Vapor density** Not applicable.

**Evaporation rate** Not applicable.

##### Solubility in / Miscibility with

**Water at 21°C (70 °F):** 50 g/l

**Partition 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:** Oxidizing agents

**Hazardous decomposition products:** Boron oxide

## 11 Toxicological information

### Information on toxicological effects

#### Acute toxicity:

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

Oral	LD50	2660 mg/kg (rat)
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#### Primary irritant effect:

**on the skin:** May cause irritation

**on the eye:** May cause irritation

**Sensitization:** No sensitizing effects known.

#### Additional toxicological information:

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

EPA-I: Data are inadequate for an assessment of human carcinogenic potential.

May cause harm to the unborn child.

ACGIH A4: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of its carcinogenicity in humans and/or animals.

May impair fertility.

The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute and/or other multiple dose toxicity data for components in this product.

The Registry of Toxic Effects of Chemical Substances (RTECS) contains reproductive and/or mutation data for components in this product.

## 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.

### Additional ecological information:

#### General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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

### 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

<b>UN-Number</b> DOT, ADR, ADN, IMDG, IATA	Not applicable
<b>UN proper shipping name</b> DOT, ADR, ADN, IMDG, IATA	Not applicable
<b>Transport hazard class(es)</b> DOT, ADR, ADN, IMDG, IATA Class	Not applicable
<b>Packing group</b> DOT, ADR, IMDG, IATA	Not applicable
<b>Environmental hazards:</b> <b>Marine pollutant:</b>	No
<b>Special precautions for user</b>	Not applicable.
<b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
<b>UN "Model Regulation":</b>	-

## **15 Regulatory information**

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

### **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 Domestic Substances List (DSL).

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

### **Other regulations, limitations and prohibitive regulations**

**Substances of very high concern (SVHC) according to REACH, Article 57**

This product contains a product listed by the European Chemicals Agency (ECHA) as a Substance of Very High Concern (SVHC). Information concerning SVHC can be found in Annex XIV for the REACH Regulation.

**REACH - Pre-registered substances** Substance is listed.

**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.

7/12/2013