

# Carmustine: sc-204671



The Power to Question

## MATERIAL SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Carmustine

**Product Number:** sc-204671

**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

Carcinogen, Target Organ Effect, Highly toxic by ingestion, Teratogen, Reproductive hazard

#### GHS Classification

Acute toxicity, Oral (Category 2)

Carcinogenicity (Category 1B)

Reproductive toxicity (Category 1B)

#### GHS Label elements, including precautionary statements

Pictogram



Signal word      Danger

#### Hazard statement(s)

H300 Fatal if swallowed.

H350 May cause cancer.

H360 May damage fertility or the unborn child.

#### Precautionary statement(s)

P201 Obtain special instructions before use.

P264 Wash hands thoroughly after handling.

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.

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

#### HMIS Classification

**Health hazard:** 3

**Chronic Health Hazard:** \*

**Flammability:** 0

**Physical hazards:** 0

#### NFPA Rating

**Health hazard:** 3

**Fire:** 0

**Reactivity Hazard:** 0

#### Potential Health Effects

**Inhalation** May be harmful if inhaled. May cause respiratory tract irritation.

**Skin** May be harmful if absorbed through skin. May cause skin irritation.

**Eyes** May cause eye irritation.

**Ingestion** May be fatal if swallowed.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Synonyms** : 1,3-Bis(2-chloroethyl)-1-nitrosourea; BCNU;

**Formula** : C<sub>5</sub>H<sub>9</sub>Cl<sub>2</sub>N<sub>3</sub>O<sub>2</sub>

**Molecular Weight** : 214.05 g/mol

<i>CAS-No.</i>	<i>EC-No.</i>	<i>Index-No.</i>	<i>Concentration</i>
<b>Carmustine</b> 154-93-8	205-838-2	-	-

### 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

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

#### In case of eye contact

Flush eyes with water as a precaution.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 5. FIRE-FIGHTING MEASURES

#### Suitable extinguishing media

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

#### Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

#### Hazardous combustion products

Hazardous decomposition products formed under fire conditions. – Carbon oxides, nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride gas

### 6. ACCIDENTAL RELEASE MEASURES

#### Personal precautions

Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

#### Environmental precautions

Prevent further leakage or spillage if safe to do so. 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 4° C.

### 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**

This product is a solid. It is not recommended to use protective gloves made of organic materials (without PVC or nitrile) 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.

### **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**

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

Form	solid	pH	no data available
Melting point/range	30° C – lit.	Boiling point	no data available
Flash point	no data available	Ignition temperature	no data available
Autoignition temperature	no data available	Lower explosion limit	no data available
Upper explosion limit	no data available	Vapor pressure	no data available
Density	no data available	Water solubility	no data available
Relative vapor density	no data available	Odor	no data available
Odor Threshold	no data available	Evaporation rate	no data available
Partition coefficient: n-octanol/water	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**

acids

### **Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. – Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas. Other decomposition products – no data available

## **11. TOXICOLOGICAL INFORMATION**

### **Acute toxicity**

#### **Oral LD50**

LD50 Oral – rat – 20 mg/kg

#### **Inhalation LC50**

no data available

#### **Dermal LD50**

no data available

### **Other information on acute toxicity**

no data available

### **Skin corrosion/irritation**

no data available

### **Serious eye damage/eye irritation**

no data available

### **Respiratory or skin sensitization**

no data available

### **Germ cell mutagenicity**

no data available

### **04D Carcinogenicity**

UN product 2811 Class 6.1 component that has been grouped to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification. Possible human carcinogen

IARC: 2A – Group 2A: Probably carcinogenic to humans (Carmustine)

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: Reasonably anticipated to be a human carcinogen (Carmustine)

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**

May cause reproductive disorders.

### **Teratogenicity**

May cause congenital malformation in the fetus.

Presumed human reproductive toxicant

### **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. May cause respiratory tract irritation.

**Ingestion** May be fatal if swallowed.

**Skin** May be harmful if absorbed through skin. May cause skin irritation.

**Eyes** May cause eye irritation.

### **Signs and Symptoms of Exposure**

Liver disorders, Ataxia., Central nervous system depression, Vomiting, Nausea

### **Synergistic effects**

no data available

### **Additional Information**

RTECS: YS2625000

## **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

## **13. DISPOSAL CONSIDERATIONS**

### **Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

### **Contaminated packaging**

Dispose of as unused product.

## **14. TRANSPORT INFORMATION**

### **DOT (US)**

UN-Number: 2811 Class: 6.1

Packing group: II

Proper shipping name: Toxic solids, organic, n.o.s. (Carmustine)

Marine pollutant: No

Poison Inhalation Hazard: No

**IMDG**

UN-Number: 2811 Class: 6.1

Packing group: II

EMS-No.: F-A, S-A

Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (Carmustine)

Marine pollutant: No

**IATA**

UN-Number: 2811 Class: 6.1

Packing group: II

Proper shipping name: Toxic solid, organic, n.o.s. (Carmustine)

**15. REGULATORY INFORMATION****OSHA Hazards**

Carcinogen, Target Organ Effect, Highly toxic by ingestion, Teratogen, Reproductive hazard

**DSL Status**

All components of this product are on the Canadian DSL list.

**SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards**

Acute Health Hazard, Chronic Health Hazard

**Massachusetts Right To Know Components**

Carmustine

CAS-No.: 154-93-8

**Pennsylvania Right To Know Components**

Carmustine

CAS-No.: 154-93-8

**New Jersey Right To Know Components**

Carmustine

CAS-No.: 154-93-8

**California Prop. 65 Components**

WARNING! This product contains a chemical known to the State of California to cause cancer.

Carmustine

CAS-No.: 154-93-8

**California Prop. 65 Components**

WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Carmustine

CAS-No.: 154-93-8

**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.*

1/28/2011