

Busulfan-d8: sc-217804



The Power to Question

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Busulfan-d8

Product Number: sc-217804

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

Classification of the Substance or Mixture and Label Elements

GHS Hazards Classification (According to EU Regulation 1272/2008 and US OSHA 1910.1200)

Acute Toxicity, Dermal (Category 2)

Acute Toxicity, Inhalation (Category 2)

Acute Toxicity, Oral (Category 3)

Carcinogenicity (Category 1B)

EU Classification (According to EU Regulation 67/548/EEC)

Toxic by inhalation, in contact with skin and if swallowed. May cause cancer.

EU Risk and Safety Statements (According to EU Regulation 67/548/EEC)

Hazard Statements Toxic

Hazard Codes Xn

Pictogram



Risk Codes and Phrases

R23/24/25

Toxic by inhalation, in contact with skin and if swallowed.

R45

May cause cancer

Safety Precaution Codes and Phrases

S53

Avoid exposure - obtain special instruction before use.

S46

If swallowed, seek medical advice immediately and show this container or label.

S27/28

After contact with skin, take off immediately all contaminated clothing and wash with plenty of soap and water.

S63

In case of accident by inhalation, remove casualty to fresh air and keep at rest.

GHS Hazards Identification (According to EU Regulation 1272/2008 and US OSHA 1910.1200)

Pictogram



Signal Word

Danger

GHS Hazard Statements

H310

Fatal in contact with skin.

H330

Fatal if inhaled.

H301

Toxic if swallowed.

H350

May cause cancer.

GHS Precautionary Statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P304/P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P301/P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P308/P313 IF exposed or concerned: Get medical advice/attention.

WHMIS Classification (Canada)

D1A



Very Toxic Material Causing Immediate and Serious Toxic Effects
Toxic by ingestion/skin absorption/inhalation

D2A



Very Toxic Material Causing Other Toxic Effects
Carcinogen

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Formula: C₆H₆D₈O₆S₂
Chemical Weight: 254.35
CAS #: 116653-28-2

4. FIRST AID MEASURES

General Advice

If medical attention is required, show this safety data sheet to the doctor.

If Inhaled

If inhaled, move casualty to fresh air. If not breathing, give artificial respiration and consult a physician.

In Case of Skin Contact

Wash affected area with soap and water. Consult a physician if any exposure symptoms are observed.

In Case of Eye Contact

Immediately rinse eyes with plenty of water for at least 15 minutes. Consult a physician.

If Swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Do NOT induce vomiting unless advised to do so by a physician or Poison Control Center. Seek medical attention.

Most Important Symptoms and Effects, Both Acute and Delayed

No data available

Indication of any Immediate Medical Attention and Special Treatment Needed

No data available

5. FIREFIGHTING MEASURES

Suitable Extinguishing Media

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

Special Hazards Arising from the Substance or Mixture

Carbon oxides, Sulfur oxides

Advice for Firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Use recommended personal protective equipment (see Section 8). Prevent the formation of dusts and mists. Adequate ventilation must be provided to ensure dusts or mists are not inhaled.

Environmental Precautions

Material should not be allowed to enter the environment. Prevent further spillage or discharge into drains, if safe to do so.

Methods and Materials for Containment and Cleaning Up

Contain the spill and then collect using non-combustible absorbent material (such as clay, diatomaceous earth, vermiculite or other appropriate material). Place material in a suitable, sealable container and then dispose according to local/national regulations and guidance (see Section 13).

For protective equipment, refer to Section 8. For disposal, see Section 13.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid contact with skin and eyes. Ventilation and proper handling are to be used to prevent the formation of dusts and mists. Normal measures for preventative fire protection. No smoking, eating or drinking around this material. Wash hands after use.

Conditions for Safe Storage, Including any Incompatibilities

Ensure container is kept securely closed before and after use. Keep in a well ventilated area and do not store with strong oxidizers or other incompatible materials (see Section 10). Store at -20 °C.

Specific End Uses

For scientific research and development only. Not for use in humans or animals.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Contains no components with established occupational exposure limits.

Appropriate Engineering Controls

A laboratory fumehood or other appropriate form of local exhaust ventilation should be used to avoid exposure.

Personal Protective Equipment

All recommendations below are advisory in nature and a risk assessment should be performed by the employer/end user prior to use of this product. The type of protective equipment must be selected based on the amount and concentration of the dangerous material being used in the workplace.

Eye/Face Protection

Safety glasses or safety goggles. All equipment should have been tested and approved under appropriate standards, such as NIOSH (US), CSA (Canada), or EN 166 (EU).

Skin Protection

Gloves should be used when handling this material. Gloves are to be inspected prior to use. Contaminated gloves are to be removed using proper glove removal technique so that the outer surface of the glove does not contact bare skin. Dispose of contaminated gloves after use in compliance with good laboratory practices and local requirements. Gloves used for incidental exposures (splash protection) should be designated as "low chemical resistant" or "waterproof" by EU standard EN 374. Unrated gloves are not recommended.

Body Protection

Fire resistant (Nomex) lab coat or coveralls.

Respiratory Protection

Recommended respirators are NIOSH-approved N95 or CEN-approved FFP2 particulate respirators. These are to be only used as a backup to local exhaust ventilation or other engineering controls. If the respirator is the only means of protection, a full-face supplied air respirator must be used.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Solid	Odor	No data available
Odor Threshold	No data available	pH	No data available
Melting Point/Freezing Point	112-114 °C	Boiling Point/Boiling Range	No data available
Flash point	No data available	Evaporation Rate	No data available
Flammability (Solid/Gas)	No data available	Upper/Lower Explosive Limits	No data available
Vapor Pressure	No data available	Vapor Density	No data available
Relative Density	No data available	Auto-Ignition Temperature	No data available
Decomposition Temperature	No data available	Viscosity	No data available
Explosive Properties	No data available	Oxidizing Properties	No data available
Solubility	Acetone, DMSO, Methanol	Partition Coefficient: n-octanol/water	No data available

10. STABILITY AND REACTIVITY

Chemical Reactivity

No data available

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

No data available

Conditions to Avoid

No data available

Incompatible Materials

Strong oxidizing agents.

Hazardous Decomposition Products

No data available

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

LD50 (oral-mouse) 110 mg/kg

Skin Corrosion/Irritation

No data available

Serious Eye Damage/Irritation

No data available

Respiratory or Skin Sensitization

No data available

Germ Cell Mutagenicity

No data available

Carcinogenicity

Known human carcinogen.

This compound has been designated by the IARC as Group 1: Carcinogenic to humans.

Reproductive Toxicity/Teratogenicity

No data available

Single Target Organ Toxicity - Single Exposure

No data available

Single Target Organ Toxicity - Repeated Exposure

No data available

Aspiration Hazard

no data available

Potential Health Effects and Routes of Exposure

Inhalation	May be fatal if inhaled. May cause respiratory tract irritation.
Skin	May be fatal if absorbed through skin. May cause skin irritation.
Eye	May cause eye irritation.
Ingestion	Toxic if swallowed.

Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties of this material have not been thoroughly investigated.

Additional Information

RTECS: EK1750000

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**

Product may be burned in an incinerator equipped with afterburner and scrubber. Excess and expired materials are to be offered to a licensed hazardous material disposal company. Ensure that all Federal and Local regulations regarding the disposal and destruction of this material are followed.

Contaminated Packaging

Dispose of as above.

Other Considerations

Product is not to be disposed of in sanitary sewers, storm sewers, or landfills.

14. TRANSPORT INFORMATION**DOT (US)/IATA/IMDG/ADR/RID**

UN Number:	2811
UN Proper Shipping Name:	Toxic solids, organic, n.o.s. (Busulfan)
Transport Hazard Classes:	6.1
Packing Group:	III
Environmental Hazard:	None
Special Precaution for User:	None

15. REGULATORY INFORMATION

This safety data sheet complies with the requirements of WHMIS (Canada), OSHA 1910.1200 (US), and EU Regulation EC No. 1907/2006 (European Union).

Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture**Canada-DSL/NDSL Status**

This product or a component of the product is registered on the Canadian DSL/NDSL.

United States-TSCA Status

This product is not listed on the US EPA TSCA.

European Union-ECHA Status

This product is not registered with the EU ECHA.

Chemical Safety Assessment

No data available

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.

07/09/2014