

N-Nitrosotris-(2-chloroethyl)urea: sc-212265



The Power to Question

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: N-Nitrosotris-(2-chloroethyl)urea

Product Number: sc-212265

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

WHMIS Classification

D1A	Very Toxic Material Immediate and	Toxic by ingestion
D2A	Serious Toxic Effects	Carcinogen
D2B		Mutagen

HMIS Classification

Health hazard:	3
Chronic Health Hazard:	*
Flammability:	0
Physical hazards:	0

Potential Health Effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Skin	May be harmful in contact with skin. May cause skin irritation.
Eyes	May cause eye irritation.
Ingestion	Toxic if swallowed.

GHS Classification

Acute toxicity, oral (Category 3)

Carcinogenicity (Category 1B)

Mutagenicity (Category 1B)

GHS Label elements, including precautionary statements

Signal word Danger

Hazard statements

H301	Toxic if swallowed.
H340	May cause genetic defects.
H350	May cause cancer.

Precautionary statement(s)

P201	Obtain special instructions before use.
P281	Use personal protective equipment as required.
P301/P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P308/P313	If exposed or concerned: Get medical advice/attention.
P310	Immediately call a POISON CENTER or doctor/physician.

GHS Label Pictogram



3. COMPOSITION/INFORMATION ON INGREDIENTS

Molecular Formula: C₇H₁₂Cl₃N₃O₂
Molecular Weight: 276.55
CAS Registry #: 69113-01-5
Synonyms: N,N,N'-Tris(2-chloroethyl)-N'-nitroso-urea; Tris(2-chloroethyl)nitroso-urea: NTCU

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. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid dust or aerosol formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). 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 or aerosols. Provide appropriate exhaust ventilation at places where dust/aerosol is formed. Normal measures for preventative fire protection.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Temperature sensitive. Store at -20°C under inert atmosphere.

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 respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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.

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.

Specific engineering controls

Use mechanical exhaust or laboratory fume-hood to avoid exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	liquid	pH	no data available
Boiling point	no data available	Flash point	no data available
Ignition temperature	no data available	Lower explosion limit	no data available
Vapor pressure	no data available	Upper explosion limit	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
Auto-ignition temperature	no data available	Partition coefficient	no data available
Melting point	no data available	n-octanol/water	
Freezing point	no data available		

10. STABILITY AND REACTIVITY**Chemical stability**

Stable under recommended storage conditions.

Conditions to avoid

Heat.

Materials to avoid

Strong oxidizing agents.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions: carbon oxides, nitrogen oxides, hydrogen chloride.

11. TOXICOLOGICAL INFORMATION**Acute toxicity**

no data available

Irritation and corrosion

no data available

Sensitization

no data available

Carcinogenicity

Experimental evidence of a carcinogenic effect in animals. IARC: The structurally related Bischloroethyl nitrosourea (BCNU) has been designated as Group 2A: Probably carcinogenic to humans. It should be assumed that N-Nitrosotris-(2-chloroethyl)urea will have similar properties.

Reproductive toxicity/Teratogenicities

no data available

Germ cell mutagenicity

Laboratory results have shown the structurally related Bischloroethyl nitrosourea (BCNU) is a mutagen.

Potential health effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion	Toxic if swallowed.
Skin	May be harmful in contact with skin.
Eyes	May cause skin irritation. May cause eye irritation.

Signs and Symptoms of Exposure

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

Additional Information

RTECS: YT9790000

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.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN-Number: 2810

Class: 6.1

Packing group: III

Proper shipping name: Toxic liquid, organic, liquid, n.o.s. (N-Nitrosotris-(2-chloroethyl)urea)

Marine pollutant: No

Poison Inhalation Hazard: No

IMDG

UN-Number: 2810

Class: 6.1

Packing group: III

EMS-No: F-E, S-D

Proper shipping name: Toxic liquid, organic, liquid, n.o.s. (N-Nitrosotris-(2-chloroethyl)urea)

Marine pollutant: No

IATA

UN-Number: 2810

Class: 6.1

Packing group: III

Proper shipping name: Toxic liquid, organic, liquid, n.o.s. (N-Nitrosotris-(2-chloroethyl)urea)

15. REGULATORY INFORMATION

DSL Status

Product is not on the Canadian DSL or NDSL list.

WHMIS Classification

D1A

Very Toxic Material Immediate and

Toxic by ingestion

D2A

Serious Toxic Effects

Carcinogen

D2B

Mutagen

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.

08/14/2013