

Order Number

Customer
Number

Section 1. Chemical Product and Company Identification

Common Name	Streptozotocin	Catalog #	572201
Supplier	Calbiochem-Novabiochem Corp. 10394 Pacific Center Court San Diego, CA 92121 (858)450-5558/(800)854-3417 FAX: (858)453-3552	In Case of Emergency	Call Chemtrec® (800)424-9300 (within U.S.A.) (703)527-3887 (outside U.S.A.)
Synonym	2-Deoxy-2-(3-methyl-3-nitrosoureido)-D-glucopyranose		

Section 2. Composition, Information on Ingredients

Name	CAS #	Exposure Limits
1) Streptozotocin	18883-66-4	Not available.

Section 3. Hazards Identification

Physical State and Appearance	Solid. (Crystalline solid.)
Emergency Overview	<p>WARNING! CANCER HAZARD CONTAINS MATERIAL WHICH CAN CAUSE CANCER MAY BE HARMFUL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED. MAY CAUSE BIRTH DEFECTS BASED ON ANIMAL DATA. MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: BLOOD, KIDNEYS, NERVOUS SYSTEM, LIVER, DIGESTIVE SYSTEM, SKIN, EYES, BONE MARROW, MUSCLE TISSUE, PANCREAS. MAY CAUSE HERITABLE GENETIC EFFECTS BASED ON IN VITRO DATA.</p> <p>Risk of cancer depends on duration and level of exposure. Avoid prolonged contact with eyes, skin, and clothing. Do not ingest. Avoid breathing dust. Keep container closed. Use only with adequate ventilation. Avoid exposure during pregnancy. Wash thoroughly after handling.</p>
Routes of Entry	Absorbed through skin. Dermal contact. Inhalation. Ingestion.
Potential Acute Health Effects	<p>Eyes Not available.</p> <p>Skin Hazardous in case of skin contact (permeator).</p> <p>Inhalation Hazardous in case of inhalation.</p> <p>Ingestion Hazardous in case of ingestion.</p>
Potential Chronic Health Effects	<p>CARCINOGENIC EFFECTS : Not available. MUTAGENIC EFFECTS: Classified POSSIBLE for human. Mutagenic for mammalian germ and somatic cells based on <i>in vitro</i> studies. TERATOGENIC EFFECTS: Classified POSSIBLE for human.</p>
Medical Conditions Aggravated by Overexposure:	Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.
Overexposure /Signs/Symptoms	Not available.
See Toxicological Information (section 11)	

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.
Skin Contact	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.
Notes to Physician	Not available.

Section 5. Fire Fighting Measures

Flammability of the Product	May be combustible at high temperature.
Flash Points	Not available.
Products of Combustion	These products are carbon oxides (CO, CO ₂), nitrogen oxides (NO, NO ₂ ...).
Fire Hazards in Presence of Various Substances	Not available.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
Protective Clothing (Fire)	Be sure to use an approved/certified respirator or equivalent.
Special Remarks on Fire Hazards	Not available.
Special Remarks on Explosion Hazards	Not available.

Section 6. Accidental Release Measures

Small Spill and Leak	Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill and Leak	Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7. Handling and Storage

Handling	Avoid prolonged contact with eyes, skin, and clothing. Do not ingest. Avoid breathing dust. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above -20°C (-4°F).

Section 8. Exposure Controls, Personal Protection

Engineering Controls Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection

Eyes Safety glasses.

Body Lab coat.

Respiratory Dust respirator. Be sure to use an approved/certified respirator or equivalent.

Hands Gloves.

Feet Not applicable.

Protective Clothing (Pictograms)



Personal Protection in Case of a Large Spill Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Product Name **Exposure Limits**

1) Streptozotocin Not available.

Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Solid. (Crystalline solid.)	Color White to yellowish. (Light.)
Molecular Weight	265.2 g/mole	
Molecular Formula	C ₈ H ₁₅ N ₅ O ₇	
Boiling/Condensation Point	Not available.	
Melting/Freezing Point	115°C (239°F)	
Specific Gravity	Not available.	
Vapor Pressure	Not applicable.	
Vapor Density	Not available.	
Solubility	Easily soluble in cold water.	

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Incompatibility with Various Substances	Reactive with alkalis.
Hazardous Decomposition Products	Not available.
Hazardous Polymerization	Not available.

Section 11. Toxicological Information

RTECS #	LZ5775000
Toxicity to Animals	LD50: Not available. LC50: Not available.
Chronic Effects on Humans	MUTAGENIC EFFECTS: Classified POSSIBLE for human. Mutagenic for mammalian germ and somatic cells based on <i>in vitro</i> studies. TERATOGENIC EFFECTS: Classified POSSIBLE for human. May cause damage to the following organs: blood, kidneys, the nervous system, liver, digestive system, skin, eyes, bone marrow, muscle tissue, pancreas.
Other Toxic Effects on Humans	Hazardous in case of skin contact (permeator), of ingestion, of inhalation.
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	May cause tumors. In vitro studies in mammal cells have shown mutagenic action. May cause congenital malformations in the foetus.
Special Remarks on Other Toxic Effects on Humans	Exposure can cause nausea, headache and vomiting. Repeated or prolonged exposure to the substance can produce liver damage. Repeated or prolonged exposure to the substance can produce kidney damage. Direct contact with the eyes can cause irreversible damage including blindness.



Section 12. Ecological Information

Ecotoxicity	Not available.
Toxicity of the Products of Biodegradation	The products of degradation are less toxic than the product itself.

Section 13. Disposal Considerations

Waste Information	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
Waste Stream	Not available.
Consult your local or regional authorities.	

Section 14. Transport Information

DOT Classification	Not a DOT controlled material (United States).	
	Not regulated.	
TDG Classification	Not controlled under TDG (Canada).	
	Not regulated.	
Marine Pollutant	Not available.	
Special Provisions for Transport	Not applicable.	
ADR/RID Classification	Not controlled under ADR (Europe).	

IMO/IMDG Classification	Not controlled under IMDG.
ICAO/IATA Classification	Not controlled under IATA.

Section 15. Regulatory Information

HCS Classification	CLASS: May cause cancer. CLASS: Target organ effects.
U.S. Federal Regulations	TSCA: No products were found. SARA 302/304/311/312 extremely hazardous substances: No products were found. SARA 302/304 emergency planning and notification: No products were found. SARA 302/304/311/312 hazardous chemicals: No products were found. SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found. SARA 313 toxic chemical notification and release reporting: No products were found. Clean Water Act (CWA) 307: No products were found. Clean Water Act (CWA) 311: No products were found. Clean air act (CAA) 112 accidental release prevention: No products were found. Clean air act (CAA) 112 regulated flammable substances: No products were found. Clean air act (CAA) 112 regulated toxic substances: No products were found.
WHMIS (Canada)	Not controlled under WHMIS (Canada). No products were found.
International Regulations	
EINECS	Not available.
DSCL (EEC)	R20/21/22- Harmful by inhalation, in contact with skin and if swallowed. R45- May cause cancer. R46- May cause heritable genetic damage. R61- May cause harm to the unborn child.
International Lists	No products were found.
State Regulations	No products were found. California prop. 65: No products were found.

Section 16. Other Information

Label Requirements	<p>CANCER HAZARD CONTAINS MATERIAL WHICH CAN CAUSE CANCER MAY BE HARMFUL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED. MAY CAUSE BIRTH DEFECTS BASED ON ANIMAL DATA. MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: BLOOD, KIDNEYS, NERVOUS SYSTEM, LIVER, DIGESTIVE SYSTEM, SKIN, EYES, BONE MARROW, MUSCLE TISSUE, PANCREAS. MAY CAUSE HERITABLE GENETIC EFFECTS BASED ON IN VITRO DATA.</p>														
Hazardous Material Information System (U.S.A.)	<table border="1"> <tr> <td>Health</td> <td>*</td> <td>0</td> </tr> <tr> <td>Fire Hazard</td> <td></td> <td>1</td> </tr> <tr> <td>Reactivity</td> <td></td> <td>0</td> </tr> <tr> <td>Personal Protection</td> <td></td> <td>E</td> </tr> </table>	Health	*	0	Fire Hazard		1	Reactivity		0	Personal Protection		E	National Fire Protection Association (U.S.A.)	<p>Health: 0, Fire Hazard: 1, Reactivity: 0, Specific Hazard: 0</p>
Health	*	0													
Fire Hazard		1													
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