

Safety Data Sheet

Streptomycin for Injection, USP

Section 1: Chemical Product and Company Identification

Product Name: Streptomycin for Injection, USP

Chemical Name(s): D-Streptamine, O-2-deoxy-2-(methylamino)- α -L-glucopyranosyl-(1 \rightarrow 2)-O-5-deoxy-3-C-formyl- α -L-lyxofuranosyl-(1 \rightarrow 4)-N,N1-bis(aminoiminomethyl)-, sulfate (2:3)(salt)

Synonym: Streptomycin sesquisulfate

CAS Number: 3810-74-0

RTECS #: WK4990000

Trade Name: Not available

Chemical Formula: (C₂₁H₃₉N₇O₁₂)₂ .3(H₂SO₄)



Health	2
Fire	1
Reactivity	0
Personal Protection	E

Contact Information:

X-GEN Pharmaceuticals, Inc.

PO Box 445, Big Flats, NY 14814

Technical Assistance: 607-562-2700

Online Assistance: www.x-gen.us

Emergency phone number:

National Poison Control

1-800-222-1222

**For information regarding recommended uses and restrictions on usage refer to the product package insert.

Section 2: Hazard Identification

Hazard pictograms (GHS-US):



Potential Acute Health Effects: Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Hazardous in case of skin contact (permeator). Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Potential Chronic Health Effects: Very hazardous in case of skin contact (irritant), of ingestion, of inhalation. Hazardous in case of skin contact (permeator).

Carcinogenic Effects: Not available

Mutagenic Effects: Not available

Teratogenic Effects: Not available

Developmental Toxicity: The substance is toxic to the nervous system and the reproductive system. Repeated or prolonged exposure to the substance can produce target organ damage.

Adverse effects: May cause diarrhea, nausea, abdominal pain, vertigo, rash, fever, urticaria, angioneurotic edema, and eosinophilia.

Section 3: Composition and Information on Ingredients

Principle Components:

<u>Name</u>	<u>CAS #</u>	<u>% by Weight</u>
Streptomycin Sulfate	3810-74-0	100

Section 4: First Aid Measures

General: Remove from exposure. Remove contaminated clothing. For treatment advice, seek guidance from an occupational health physician or other licensed health-care provider familiar with workplace chemical exposure. If person is not breathing give artificial respiration. If breathing is difficult give oxygen. Persons developing serious hypersensitivity (anaphylactic) reactions must receive immediate medical attention. Obtain medical attention.

Inhalation: Allow the victim to rest in a well ventilated area. Seek medical attention immediately.

Skin contact: After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

Serious skin contact: Wash with disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention immediately.

Eye contact: Check for and remove any contact lenses. Flush eyes with copious amounts of water. Do not use an eye ointment. Seek medical attention immediately.

Ingestion: Do not induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention immediately.

Notes to physician: Seek product package insert for complete information.

Overdose Treatment: Treatment is symptomatic and supportive and may include the following: 1) in patients with impaired renal function, use hemodialysis or peritoneal dialysis to remove aminoglycosides from blood. 2) Treat neuromuscular blockade with anticholinesterase agents, calcium salts, or mechanical respiratory assistance.

Section 5: Fire Fighting Measures

Flammability of the product: May be combustible at high temperatures.

Combustion Products: These products are: carbon oxides, nitrogen oxides, and sulfur oxides.

Unusual Fire and Explosion Hazards: This material is assumed to be combustible. As with all dry powders it is advisable to ground mechanical equipment in contact with dry material to dissipate the potential buildup of static electricity.

Extinguishing Media and Instruction: **Small fire:** use dry chemical powder. **Large fire:** Water spray, fog, carbon dioxide or foam as appropriate for surrounding fire and materials. Do not use water jet.

Protective equipment & precautions for firefighters: As with all fires, evacuate personnel to a safe area. Firefighters should wear self-contained breathing apparatus and protective clothing.

Special remarks on fire hazard: Not available

Special remarks on explosion hazard: Not available

Section 6: Accidental Release Measures

Release to land:

Small spill: 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, state, and federal regulations.

Large spill: Use a shovel to put the material into a convenient waste disposal container. Sweep up or vacuum with caution to avoid generation of dust during clean-up. Finish cleaning by spreading water on the contaminated surface and clean surface thoroughly to remove residual contamination. Collect in suitable container for disposal. For proper waste disposal, see section 13 of the SDS.

Release to air: Not available

Release to water: Not available.

Protective equipment: Keep unnecessary personnel away. Wear approved respiratory protection, chemically compatible gloves and protective clothing.

Section 7: Handling and Storage

Handling: As a general rule, when handling Streptomycin for Injection, USP, avoid all contact and inhalation of dust, mists, and/or vapors associated with the material.

Keep away from heat, sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. DO NOT breathe dust. In case of insufficient ventilation wear suitable respiratory equipment. If ingested seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Use only in accordance with directions.

Storage: Keep container tightly closed. Keep container in a cool, dry, well ventilated place in a light-resistant container (see USP CRT storage conditions). Store at controlled room temperature 20° - 25°C (68° - 77°F). Refer to label instructions to ensure product integrity.

Incompatibilities: Extreme heat and strong oxidizing agents.

Section 8: Exposure Controls / Personal Protection

Engineering controls: Use process enclosures, local exhaust ventilation, or other engineering controls to for adequate ventilation 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. Proper ventilation recommended.

Personal protection: Splash goggles. Lab coat. Gloves. Certified/approved dust respirator as necessary. Be sure to use an approved/ certified respirator or equivalent. **In case of 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.

Respiratory protection: Under normal use, respirators are not required. If dusts are generated, use a disposable mask (N95). Personnel wearing respirators should be fit tested and approved for respirator use, under OSHA Respiratory Protection Standard 29 CFR 1910.134.

Exposure limit: Not available

Section 9: Physical and Chemical Properties

Physical appearance: Solid (powder)

Color: White or practically white

Molecular Weight: 1457.38 g/mole

Taste: Not available

Odor: Faint odor

Odor Threshold: Not available

pH: Not available

Melting Point: Decomposes

Freezing Point: Not available

Boiling Point: Not available

Flash Point: Not available

Evaporation rate: Not available

Flammability: May be combustible

Upper Flammable Limit: Not available

Lower Flammable Limit: Not available

Vapor Pressure: Not available

Vapor Density: Not available

Relative density: Not available

Partition Coefficient: Not available

Auto-Ignition Temperature: Not available

Decomposition Temperature: Not available

Viscosity: Not available

Dispersion Properties: Not available

Solubility: Freely soluble in water

Section 10: Stability and Reactivity

Reactivity: Stable

Chemical stability: Stable

Possibility of hazardous reaction: Not available

Conditions to avoid: Avoid exposure to light, heat, and moisture.

Incompatible materials: acids and alkalis

Hazardous decomposition products: When heated to decomposition material emits very toxic fumes of sulfur and nitrogen oxides. Emits toxic fumes under fire conditions.

Corrosivity: Non corrosive in presence of glass

Polymerization: Not known to occur

Section 11: Toxicological Information

Routes of exposure: Dermal contact. Eye contact. Inhalation. Ingestion.

Symptoms:

Short term: Possible eye, skin, gastrointestinal and/or respiratory tract irritation. **Long term:** Possible hyper sensitization, auditory dysfunction, and super infection. The substance is toxic to the nervous system and reproductive system.

Reproductive toxicity: Adequate and well-controlled pregnancy studies in humans have not been done. Aminoglycosides may cause nerve damage in the human fetus; streptomycin has been shown to cause total irreversible, bilateral congenital deafness in infants whose mothers received it during pregnancy.

FDA Pregnancy Category: D

Toxicity to animals:

Oral Mouse: LD50: 430 mg/kg

Oral Rat: LD50: 430 mg/kg

Oral Hamster: LD50: 400mg/kg

Measures of toxicity: Not available

Additional reproductive health and toxicity data is available from the National Institute for Occupational Safety and Health (NIOSH) and/or Registry of Toxic Effects of Chemical Substance (RTECS).

Section 12: Ecological Information

Ecotoxicity: Toxic to fish and other aquatic invertebrates.

Bioaccumulation potential: Not available

Products of biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the products of biodegradation: The products of biodegradation are more toxic.

Section 13: Disposal Information

Waste classification: Not available

Waste from residues/unused products: Wear proper protective equipment when handling waste materials. Dispose of waste in accordance with all applicable federal, state and local laws.

Waste Disposal: Dispose of waste in accordance with all applicable federal, state and local laws.

Section 14: Transport Information

DOT Classification: Not a DOT controlled material

UN Number: Not available

UN Shipping name: Not available

Transport hazard class: Not available

Packing Group: Not available

Environmental hazard: Not available

Transport in bulk: Not available

Special precautions needed with transport: Not available

Section 15: Regulatory Information

Federal and State Regulations: California Proposition 65: This product contains the following ingredients for which the State of California has found to cause birth defects. TSCA 8(b) inventory: streptomycin sulfate.

Other Regulations: OSHA: hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications:

WHMIS (Canada): Class D-1B: Material causing immediate and serious toxic effects (TOXIC). Class D-2A: Material causing other toxic effects (VERY TOXIC).

DSCL (EEC): R38- Irritating to skin. R41- Risk of serious damage to eyes.

HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 1

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 2

Flammability: 1

Reactivity: 0

Protective Equipment: Gloves. Lab coat. Safety glasses. Dust Respirator. Be sure to use an approved/certified respirator or equivalent.

Section 16: Other Information

References: Not available

Created: 1/30/2015

Last Updated: 3/27/2015

Prepared & Approved by: X-GEN Pharmaceuticals, Inc., Safety Committee

The above information is believed to be accurate and represents the best information currently available to us. The use of this product should be through or under the direction of a physician. This SDS does not address therapeutic use of this material. X-GEN Pharmaceuticals, Inc. makes no warranties, express or implied with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information. In no event should X-GEN Pharmaceuticals be liable for any claim, loss, or damage of any third party, even if X-GEN Pharmaceuticals has been advised of the possibility of such damages to occur.