



Material Safety Data Sheet

Date Prepared: 10/17/03
Prepared By: RC Park
Technical Assistance: 607-562-2700

X-GEN Pharmaceuticals
PO Box 445
Big Flats, NY 14814

NEOMYCIN SULFATE

IDENTIFICATION

EMERGENCY OVERVIEW: Reproductive hazard. Irritant.

Common Name: Neomycin Sulfate

Chemical Name: Neomycin Sulfate

Synonym: Neomycin B Sulfate

Formula: n/f

CAS Number: 1405-10-3

RTECS Number: QP4375000

Chemical Family: An Aminoglycoside

Therapeutic Category: Antibacterial

INGREDIENT INFORMATION

Principle Components

Neomycin Sulfate

Percent

Pure Material

Exposure Limits

n/f

HEALTH HAZARD INFORMATION

Usual Adult Dose: The usual oral adult dose of neomycin sulfate is 4 to 12 grams per day in divided doses. It has also been used topically as a 0.35% cream applied 1 to 5 times daily.

Adverse Effects: Adverse effects may include a change in the amount or frequency of urination; increased thirst; gastrointestinal disturbances; muscle twitching; numbness; seizures; tingling; hearing loss; ringing, buzzing, or feeling of fullness in ears; clumsiness; dizziness; and skin rash. Possible allergic reaction to material if inhaled, ingested or in contact with skin.

Overdose Effects: Hearing loss and kidney damage may result from overdose.

Acute: Possible eye, skin, gastrointestinal and/or respiratory tract irritation.

Chronic: Possible hypersensitization, intestinal malabsorption syndrome, and superinfection.

Inhalation: May cause irritation. Remove to fresh air.

Eye: May cause irritation. Flush with copious quantities of water.

n/f = not found

NEOMYCIN SULFATE

HEALTH HAZARD INFORMATION CONTINUED

Skin: Causes mild irritation and is readily skin absorbable. Avoid contact. Flush with copious quantities of water.

Ingestion: May cause irritation. Flush out mouth with water. This material is poorly absorbed from the gastrointestinal tract.

Medical Conditions Aggravated by Exposure: Hypersensitivity to the material, myasthenia gravis, parkinsonism, impaired kidney function, eighth-cranial nerve (hearing) impairment, ulcerative lesions of the bowel, intestinal obstruction, and dehydration.

Cross Sensitivity: Persons hypersensitive to one aminoglycoside may be hypersensitive to this material, also.

Pregnancy Comments: All aminoglycosides cross the placenta, and may cause some serious adverse effects on the fetus. Neomycin may cause kidney damage to the fetus, and therapeutic use during pregnancy is not recommended.

Pregnancy Category: D

FIRST AID MEASURES

General: Remove from exposure. Remove contaminated clothing. Persons developing serious hypersensitivity (anaphylactic) reactions must receive immediate medical attention. If person is not breathing give artificial respiration. If breathing is difficult give oxygen. Obtain medical attention.

Overdose Treatment: Since there is no specific antidote, treatment of aminoglycoside overdose or toxicity should be symptomatic and supportive. If patient has impaired kidney function, use hemodialysis or peritoneal dialysis to remove neomycin from the blood.

TOXICOLOGICAL INFORMATION

Oral Rat: LD50: n/f
Oral Mouse: LD50: 8 grams/kg
Irritancy Data: [RTECS] - Human/Skin: mild
Target Organ(s): Kidneys and Ears.
Listed as a Carcinogen? NTP: No IARC: No OSHA: No
Other: No

FIREFIGHTING MEASURES

Flash Point: n/f **Upper Flammable Limit:** n/f
Auto-Ignition Temperature: n/f **Lower Flammable Limit:** n/f
Extinguisher Media: Water spray, dry chemical, carbon dioxide or foam as appropriate for surrounding fire and materials.

n/f = not found

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FIREFIGHTING MEASURES CONTINUED

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.

Firefighting Procedures: As with all fires, evacuate personnel to a safe area. Firefighters should use self-contained breathing equipment and protective clothing.

PHYSICAL HAZARDS

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

Incompatibilities: Acids

Decomposition Products: When heated to decomposition material emits very toxic fumes of SO_x. Emits toxic fumes under fire conditions.

Stable? Yes

Hazardous Polymerization? No

HANDLING / SPILL / DISPOSAL MEASURES

Handling: As a general rule, when handling USP Reference Standards avoid all contact and inhalation of dust, mists, and/or vapors associated with the material. Wash thoroughly after handling.

Storage: Store in tight, light-resistant container as defined in the USP-NF. This material should be handled and stored per label instructions to ensure product integrity. Store in a cold place.

Spill Response: Wear approved respiratory protection, chemically compatible gloves and protective clothing. Wipe up spillage or collect spillage using a high efficiency vacuum cleaner. Avoid breathing dust. Place spillage in appropriately labeled container for disposal. Wash spill site.

Disposal: Dispose of waste in accordance with all applicable Federal, State and local laws.

EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory Protection: Use a NIOSH approved respirator, if it is determined to be necessary by an industrial hygiene survey involving air monitoring. In the event that a respirator is not required, an approved dust mask should be used.

Ventilation: Recommended.

Gloves: Rubber

Eye Protection: Safety Glasses

Protective Clothing: Protect exposed skin.

NEOMYCIN SULFATE

PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: White to slightly yellow powder; odorless or almost odorless.

Melting Point: n/f

Solubility in Water: Soluble

Solubility in Water: n/f

Boiling Point: n/f

Specific Gravity: n/f

Vapor Pressure: n/f

Vapor Density: n/f

Evaporation Rate: n/f

Evaporation Rate: n/f

Reactivity in Water: n/f

% Volatile by Volume: n/f

n/f = not found