



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

POLYMYXIN B SULFATE

IDENTIFICATION

Common Name: Polymyxin B Sulfate

Chemical Name: Polymyxin B, sulfate

Synonym: n/f

Formula: C₄₃H₈₂N₁₆O₁₂ · xH₂SO₄

CAS Number: 1405-20-5

RTECS Number: TR1150000

Chemical Family: Cyclic polypeptide

Therapeutic Category: Antibacterial

INGREDIENT INFORMATION

Principle Components

Polymyxin B Sulfate

Percent

Pure Material

Exposure Limits

n/f

HEALTH HAZARD INFORMATION

Usual Adult Dose: Polymyxin B sulfate is applied topically to the skin, ear, or eyes as a 0.1% solution or ointment. It is also administered by intravenous injection in doses of 0.75 to 1.25 mg per kilogram every 12 hours.

Adverse Effects: Adverse effects following injection include dizziness, inability to coordinate muscular movements, visual disturbances, confusion, drowsiness, temporary absence of breathing, rash, fever, skin lesions, and sensory disturbances of the face and extremities. Possible allergic reaction to material if inhaled, ingested or in contact with skin.

Overdose Effects: n/f

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

Chronic: Possible hyper sensitization and kidney damage.

Inhalation: May cause irritation. Remove to fresh air.

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

n/f = not found

HEALTH HAZARD INFORMATION CONTINUED

Skin: May cause irritation. Flush with copious quantities of water. This material is absorbed through broken skin.

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 material, impaired kidney function, chronic pulmonary disease, myasthenia gravis, or other neuromuscular disorders.

Cross Sensitivity: Persons sensitive to other polymyxins may be sensitive to this material also.

Pregnancy Comments: n/f

Pregnancy Category: n/f

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: Neostigmine or calcium salts are of little value in reversing neuromuscular blockade and artificial ventilation may be required if it develops. Neither hemodialysis nor peritoneal dialysis is effective in eliminating the drug. [Martindale 32nd ed. 1999; Mylers 14th ed. 2000]

TOXICOLOGICAL INFORMATION

Oral Rat:	LD50: n/f	Oral Mouse:	LD50: 790 mg (base)/kg
Target Organ(s):	Kidneys	Irritancy Data:	n/f
Listed as a Carcinogen? NTP:	No	IARC:	No
		OSHA:	No

FIREFIGHTING MEASURES

Flash Point: n/f

Auto-Ignition Temperature: 805°

Upper Flammable Limit: 10 grams/ft³

Lower Flammable Limit: 9 grams/ft³

Extinguisher Media: Water spray, dry chemical, carbon dioxide or foam as appropriate for surrounding fire and materials.

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.

n/f = not found

2

POLYMYXIN B SULFATE

PHYSICAL HAZARDS

Conditions to Avoid: Avoid exposure to light and heat

Incompatibilities: Strong acids and alkalis.

Decomposition Products: When heated to decomposition material emits very toxic fumes of SO_x and NO_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: When working with small quantities in a well-ventilated area, respiratory protection may not be required. The use of an approved dust mask is recommended.

Ventilation: No special ventilation requirements.

Gloves: Rubber

Eye Protection: Safety Glasses

Protective Clothing: Protect exposed skin.

PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: White to buff-colored powder; odorless or faint odor.

Melting Point: n/f

Solubility in Water: Freely Soluble

Vapor Density: n/f

Boiling Point: n/f

Evaporation Rate: n/f

Specific Gravity: n/f

Reactivity in Water: n/f

Vapor Pressure: n/f

% Volatile by Volume: n/f

n/f = not found

3