



Material Safety Data Sheet

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COLISTIMETHATE SODIUM

IDENTIFICATION

Common Name: Colistimethate Sodium

Chemical Name: Colistimethate Sodium

Synonym: Colistin Sulphomethate Sodium; Sodium Colistinmethanesulfonate

Formula: C₅₈H₁₀₅N₁₆Na₅O₂₈S

CAS Number: 8068-28-8

Chemical Family: A Cyclic polypeptide

RTECS Number: n/f

Therapeutic Category: Antibacterial

INGREDIENT INFORMATION

Principle Components

Colistimethate Sodium

Percent

Pure Material

Exposure Limits

n/f

HEALTH HAZARD INFORMATION

Usual Adult Dose: The usual adult dose (intramuscular or intravenous) of colistimethate sodium is up to 5 mg per kilogram of body weight a day in two to four divided doses.

Adverse Effects: Adverse effects may include nausea, vomiting, diarrhea, tingling, numbness, itching, skin rash, fever, flushing, dizziness, drowsiness, slurred speech, decreased urine output, and breathing difficulty. Respiratory arrest has also been reported. Possible allergic reaction to material if inhaled, ingested or in contact with skin.

Overdose Effects: Overdose may result in kidney failure, muscle weakness and lack of breathing.

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

Chronic: Possible hypersensitization and super infection.

Inhalation: May cause irritation and bronchospasm. Avoid inhalation. Remove to fresh air.

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

Skin: May cause irritation. Flush with copious quantities of water. This material is not absorbed through intact skin.

n/f = not found

COLISTIMETHATE SODIUM

HEALTH HAZARD INFORMATION CONTINUED

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 and impaired kidney function.

Cross Sensitivity: n/f

Pregnancy Comments: There are no adequate and well-controlled studies in humans. Birth defects were not seen in rats, but studies did show deformities in rabbits.

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: n/f

TOXICOLOGICAL INFORMATION

Oral Rat: LD50: 5450 mg/kg

Oral Mouse: LD50: n/f

Irritancy Data: n/f

Target Organ(s): Kidneys

Listed as a Carcinogen? NTP: No
Other: No

IARC: No

OSHA: 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.

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

COLISTIMETHATE SODIUM

PHYSICAL HAZARDS

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

Incompatibilities: Oxidizing agents.

Decomposition Products: When heated to decomposition material emits toxic fumes of NO_x, SO_x, and Na₂O. 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: A white to slightly yellow fine powder; odorless.

Melting Point: n/f

Solubility in Water: Freely 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