

MATERIAL SAFETY DATA SHEET

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Version 1.5

Section 1 - Product and Company Information

Product Name GENTAMICIN SULFATE, MEETS USP TESTING SPECIFICATIONS
Product Number G1914
Brand SIAL

Company Sigma-Aldrich
Address 3050 Spruce Street
SAINT LOUIS MO 63103 US

Technical Phone: 800-325-5832
Fax: 800-325-5052
Emergency Phone: 314-776-6555

Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313
GENTAMICIN SULFATE, MEETS USP TESTING SPECS.	1405-41-0	No

Synonyms Garamycin * Genoptic * Genoptic S.O.P. *
Gentalline * Gentamycin sulfate * GM sulfate *
NSC-82261 * Refobacin * Sch 9724

RTECS Number: LY2625000

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Harmful.

May cause sensitization by inhalation and skin contact.

Calif. Prop. 65 developmental hazard. Photosensitizer. Target organ(s): Ears. Kidneys.

HMIS RATING

HEALTH: 3*

FLAMMABILITY: 0

REACTIVITY: 0

NFPA RATING

HEALTH: 3

FLAMMABILITY: 0

REACTIVITY: 0

*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

INHALATION EXPOSURE

If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

DERMAL EXPOSURE

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

EYE EXPOSURE

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

FLASH POINT

N/A

AUTOIGNITION TEMP

N/A

FLAMMABILITY

N/A

EXTINGUISHING MEDIA

Suitable: Noncombustible. Use extinguishing media appropriate to surrounding fire conditions.

FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Specific Hazard(s): Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

HANDLING

User Exposure: Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

STORAGE

Suitable: Keep tightly closed.
Store at 2-8°C

Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS

Mechanical exhaust required.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory: Use respirators and components tested and approved

under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator.

Other: Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling. Wash contaminated clothing before reuse.

Section 9 - Physical/Chemical Properties

Appearance	Physical State: Solid	
Property	Value	At Temperature or Pressure
Molecular Weight	N/A	
pH	N/A	
BP/BP Range	N/A	
MP/MP Range	N/A	
Freezing Point	N/A	
Vapor Pressure	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
SG/Density	N/A	
Bulk Density	N/A	
Odor Threshold	N/A	
Volatile%	N/A	
VOC Content	N/A	
Water Content	N/A	
Solvent Content	N/A	
Evaporation Rate	N/A	
Viscosity	N/A	
Surface Tension	N/A	
Partition Coefficient	N/A	
Decomposition Temp.	N/A	
Flash Point	N/A	
Explosion Limits	N/A	
Flammability	N/A	
Autoignition Temp	N/A	
Refractive Index	N/A	
Optical Rotation	N/A	
Miscellaneous Data	N/A	
Solubility	N/A	

N/A = not available

Section 10 - Stability and Reactivity

STABILITY

Stable: Stable.

Materials to Avoid: Oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Nitrogen oxides.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: May cause eye irritation.
Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
Ingestion: May be harmful if swallowed.

SENSITIZATION

Sensitization: Causes photosensitivity. Exposure to light can result in allergic reactions resulting in dermatologic lesions, which can vary from sunburnlike responses to edematous, vesiculated lesions, or bullae. Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.
Respiratory: May cause allergic respiratory reaction.

TARGET ORGAN(S) OR SYSTEM(S)

Nerves. Aminoglycosides are associated with significant nephrotoxicity and/or ototoxicity. Ears. Kidneys.

SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Nausea, headache, and vomiting. Exposure can cause: Aminoglycosides are associated with significant nephrotoxicity and/or ototoxicity.

TOXICITY DATA

Oral

Rat

> 5000 mg/kg

LD50

Remarks: Skin and Appendages: Other: Hair. Behavioral: Somnolence (general depressed activity).

Intraperitoneal

Rat

630 MG/KG

LD50

Remarks: Lungs, Thorax, or Respiration: Other changes. Behavioral: Muscle contraction or spasticity.

Subcutaneous

Rat

873 MG(BASE)/KG

LD50

Intravenous

Rat

96 MG/KG

LD50

Remarks: Behavioral: Convulsions or effect on seizure threshold. Behavioral: Altered sleep time (including change in righting reflex). Lungs, Thorax, or Respiration: Respiratory stimulation.

Intramuscular

Rat

384 MG/KG

LD50

Oral
Mouse
> 11269 mg/kg
LD50

Intraperitoneal
Mouse
245 MG/KG
LD50

Remarks: Behavioral:Altered sleep time (including change in righting reflex). Behavioral:Convulsions or effect on seizure threshold. Lungs, Thorax, or Respiration:Respiratory stimulation.

Subcutaneous
Mouse
478 MG/KG
LD50

Intravenous
Mouse
47 MG/KG
LD50

Remarks: Behavioral:Somnolence (general depressed activity). Behavioral:Convulsions or effect on seizure threshold. Lungs, Thorax, or Respiration:Dyspnea.

Intramuscular
Mouse
250 MG/KG
LD50

Remarks: Behavioral:Altered sleep time (including change in righting reflex). Lungs, Thorax, or Respiration:Respiratory stimulation.

Intracerebral
Mouse
17300 UG/KG
LD50

Remarks: Peripheral Nerve and Sensation:Sensory change involving peripheral nerve. Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Ptoisis. Behavioral:Convulsions or effect on seizure threshold.

Subcutaneous
Guinea pig
600 MG/KG
LD50

CHRONIC EXPOSURE - TERATOGEN

Species: Rat
Dose: 660 MG/KG
Route of Application: Subcutaneous
Exposure Time: (10-15D PREG)
Result: Specific Developmental Abnormalities: Urogenital system.
Specific Developmental Abnormalities: Cardiovascular (circulatory) system.

Species: Rat
Dose: 375 MG/KG
Route of Application: Intraperitoneal

Exposure Time: (14-18D PREG)
Result: Effects on Newborn: Growth statistics (e.g., reduced weight gain). Specific Developmental Abnormalities: Urogenital system.

CHRONIC EXPOSURE - MUTAGEN

Species: Rat
Route: Intraperitoneal
Dose: 70 MG/KG
Exposure Time: 7D
Mutation test: DNA damage

Species: Rat
Route: Unreported
Dose: 9600 UG/KG
Exposure Time: 8D
Mutation test: sperm

CHRONIC EXPOSURE - REPRODUCTIVE HAZARD

Species: Rat
Dose: 660 MG/KG
Route of Application: Subcutaneous
Exposure Time: (15-20D PREG)
Result: Effects on Newborn: Biochemical and metabolic.

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT

Proper Shipping Name: None
Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

IATA

Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information

EU ADDITIONAL CLASSIFICATION

Symbol of Danger: Xn
Indication of Danger: Harmful.
R: 42/43
Risk Statements: May cause sensitization by inhalation and skin contact.
S: 22-36/37-45
Safety Statements: Do not breathe dust. Wear suitable protective clothing and gloves. In case of accident or if you feel unwell,

seek medical advice immediately (show the label where possible).

US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Harmful.

Risk Statements: May cause sensitization by inhalation and skin contact.

Safety Statements: Do not breathe dust. Wear suitable protective clothing and gloves. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

US Statements: Calif. Prop. 65 developmental hazard.

Photosensitizer. Target organ(s): Ears. Kidneys.

UNITED STATES REGULATORY INFORMATION

SARA LISTED: No

UNITED STATES - STATE REGULATORY INFORMATION

CALIFORNIA PROP - 65

California Prop - 65: This product is or contains chemical(s) known to the state of California to cause developmental toxicity.

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

Section 16 - Other Information

DISCLAIMER

For R&D or manufacturing use. Not for prescription compound or other uses.

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2008 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.