



**Hangzhou Tianlong Biotechnology Co., Ltd.**

Add: Room 1906, Fengqi Times Tower, No.338, Fengqi East Road, Hangzhou, Zhejiang, China.

## MATERIAL SAFETY DATA SHEET

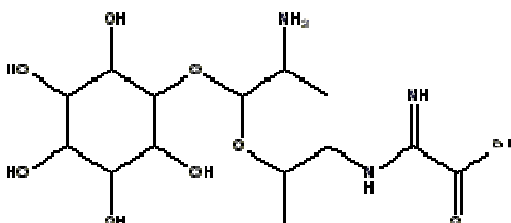
### 1. Chemical Product and company Identification

Product Name: Kasugamycin

Molecular Formula:  $C_{14}H_{25}N_3O_9$

Molecular Weight: 379.366

Structural Formula:



Chemical Name:

3-O-(2-Amino-4-((carboxyiminomethyl)amino)-2,3,4,6-tetrahydroxy- $\alpha$ -D-ara binohexopyranosyl-d-chiro-inositol hydrochloride

CAS No.: 19408-46-9; 6980-18-3 (two CAS number for the same compound)

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### 2. Composition / Information On Ingredients

Composition	CAS No.	Content %
Kasugamycin	19408-46-9; 6980-18-3	70.0
Other ingredients		30.0

### 3. Hazards Identification

May be harmful if ingested, inhaled, or absorbed through the skin. May cause irritation. To the best of our knowledge, the toxicological properties of this compound have not been fully investigated. Exercise appropriate precautions to prevent opportunities for inhalation, and to prevent direct contact with skin and eyes. All uncharacterized chemicals should be treated as suspected toxins.

#### **4. First Aid Measures**

Eye Contact: Check for and remove contact lenses. Flush eyes with running water for at least 15 minutes separating eyelids. Seek medical attention immediately.

Skin Contact: Wash with soap and water for 15 minutes. Remove contaminated clothing and shoes. Seek medical attention immediately.

Inhalation: Remove from exposure. If breathing is difficult, administer oxygen. If breathing stops, administer artificial respiration. Seek medical attention immediately. Provide chemical label and MSDS if possible.

Ingestion: Remove dentures and clear mouth. If person is conscious, rinse mouth with water. Call physician or poison control immediately. Provide chemical label and MSDS information if possible.

#### **5. Fire-Fighting Measures**

Flammability: Not Available

Flash Point: Not Available

Combustion Products: Carbon monoxide, Carbon dioxide, Nitrogen oxides, Hydrogen chloride gas.

Extinguishing Media: Carbon Dioxide, Dry chemical powder, polymer foam, water spray

Special Firefighting Procedures: Use self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Unusual Fire/Explosion Hazards: None known

#### **6. Accidental Release Measures**

Cleanup Procedures: Wearing appropriate protective gear as outlined under "Protective equipment" wipe up spill and place in sealed container and hold for disposal. Avoid raising dust. Ventilate the area and wash spill site after material has been removed.

#### **7. Handling And Storage**

Storage and Handling: This product should be stored at room temperature. It should be kept in a tightly closed container. This product should be handled only by qualified experienced professionals. Wash thoroughly after handling this material.

#### **8. Exposure Controls/Personal Protection**

Protective Equipment: For spill clean up, wear suitable protective clothing, chemical resistant rubber gloves, rubber boots, and chemical safety goggles. Self contained breathing apparatus or NIOSH/MSHA approved respirator is required.

#### **9. Physical and Chemical Properties**

Form: solid

Color: White or brown

Odor: Odorless

Boiling Point: Not Available

Melting Point: 202-204°C  
Solubility: in Water 125g/l@25°C  
Relative Density: 0.43@25°C  
Specific Gravity: Not Available  
Vapor Pressure:  $<1.3 \times 10^{-8}$  Pa@25°C  
Partition coefficient : KowlogP<1

## 10. Stability and Reactivity

Stability: This material is stable if stored as directed  
Conditions to Avoid: Excessive exposure to heat or sunlight.  
Incompatibles: Strong oxidizers, Strong alkalis

## 11. Toxicological Information

Acute:

Eye Irritation: (Rabbit) Slightly irritating

Skin Irritation: (Rabbit) Non-irritating

Dermal Toxicity: (Rat) LD50 > 2,000 mg/kg

Oral Toxicity: LD50 > 5,000 mg/kg (rat)

LD50 > 5,000 mg/kg (mouse)

Subchronic Toxicity: 90 day oral NOEL in mouse = 1,000 ppm

90 day oral NOEL in rat = 300 ppm

90 day oral NOEL in dog = 300 ppm

Chronic/Carcinogenicity: Not a carcinogen

Mouse NOEL = 300 ppm

Rat NOEL = 300 ppm

Teratology/Developmental Toxicity: Not teratogenic in rabbits or rats.

Reproductive Toxicity: No evidence of reproductive toxicity.

## 12. Ecological Information

Fish Toxicity:

Quail LD50 > 4,000 ppm

Rainbow Trout 96-hr LC50 > 1,000 ppm

Bluegill 96-hr LC50 > 1,000 ppm

Guppy 96-hr LC50 > 1,000 ppm

Other Toxicity:

Daphnia magna 3-hr LC50 > 40 ppm

Alga EC50 = 11 mg/L

Alga NOEC = 72 mg/L

Honeybee contact LD50 > 40/mg/bee

## 13. Disposal Considerations

Product/Waste disposal: Must be disposed of in accordance with local regulations.

## 14. Transport Information

Not dangerous.

#### **15. Regulatory Information**

Safety Phrases: Keep out of reach of children

Keep away from food, drink and animal feeding stuff

Do not breathe spray

When using do not eat, drink or smoke

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

In case of accident or if you feel unwell, seek medical advice immediately (Show the label where possible)

Use appropriate containment to avoid environmental contamination

#### **16. Other Information**

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons on receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produce formulations containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.