Material Safety Data Sheet

Section 1 - Product and Company Information

Product Name: Hygromycin B. From Streptomyces hygroscopicus
Product Number: H9773
Brand: Sigma Chemical
Company: Sigma-Aldrich
Street Address: 3050 Spruce Street
City, State, Zip, Country: SAIN LOUIS, MO 63103 US
Technical Phone: 314 771 5700
Fax: 800 325 2032
Emergency Phone: 414.273.3850 Ext. 5996

Section 2 - Composition/Information on Ingredient

Substance Name | CAS # | SARA 313 | EC no | Annex Index Number
---|---|---|---|---
HYGROMYCIN B | 31282-04-9 | no | 250-585-0
Formula: C20H37N3O13

Section 3 - Hazards Identification

Emergency Overview
Highly Toxic (USA) Vary Toxic (EU)
Vary toxic by inhalation, in contact with skin and if swallowed. Risk of serious damage to eyes.
Lachrymator. Target organ(s): Eyes.

HMIS Rating
Health: 4
Flammability: 0
Reactivity: 0
NFPA Rating
Health: 4
Flammability: 0
Reactivity: 0

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 immediately.

Inhalation Exposure
If inhaled, move to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

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.

Section 5 - Fire Fighting Measures

Autoignition Temp: N/A
Extinguishing Media
Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

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 to be Followed in Case of Leak or Spill
Evacuate area.

Procedure(s) of Personal Precaution(s)
Wear self-contained breathing apparatus, 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
Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

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

Section 8 - Exposure Controls / PPE

Engineering Controls
Safety shower and eye bath. Use only in a chemical fume hood.

Personal Protective Equipment
Respiratory
Government approved respirator.
Hand
Compatible chemical-resistant gloves.
Eye
Chemical safety goggles.

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**General Hygiene Measures**
Wash contaminated clothing before reuse. Wash thoroughly after handling.

**Section 9 - Physical/Chemical Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td>Appearance</td>
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<tr>
<td>Physical State</td>
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<td>Color</td>
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<tr>
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<tr>
<td>pH</td>
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<td>Autoignition Temp.</td>
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<tr>
<td>Solubility</td>
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</tr>
<tr>
<td>N/A = not available</td>
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</table>

**Section 10 - Stability and Reactivity**

| Stability              | Stable         |
|                       | Stable         |
| Materials to Avoid    | Strong oxidizing agents. |

**Hazardous Decomposition Products**

**Thermal decomposition may produce carbon monoxide, carbon dioxide, and nitrogen oxides.**

**Section 11 - Toxicological Information**

**Route of Exposure**

- **Skin Contact**
  - Causes skin irritation.
- **Skin Absorption**
  - May be fatal if absorbed through skin.
- **Eye Contact**
  - Causes severe eye irritation.
- **Inhalation**
  - May be fatal if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
- **Ingestion**
  - May be fatal if swallowed.

**Sensitization**

- **Respiratory**
  - May cause allergic respiratory reaction.
- **Skin**
  - May cause allergic skin reaction.

**Target Organ(s) or System(s)**

- **Ears**

**Signs and Symptoms of Exposure**

Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. Exposure can cause: Conjunctivitis, Dermatitis. Repeated exposure can cause hearing loss.

**RTECS Number**

WH2130000

**Toxicity Data**

- **Inhalation - Rat**
  - 1.22 mg/m³ (LC50)
- **Oral - Mouse**
  - 40000 UNITS/KG (LD50)
- **Intravenous - Mouse**
  - 0.6 MG/KG (LD50)
- **Intraperitoneal - Guinea pig**
  - 13 MG/KG (LD50)

**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 the material. Dissolve 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**: Toxins, from living sources, solid, n.o.s.
- **UN#**: 3172

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Section 15 - Regulatory Information

EU Additional Classification
Symbol of Danger: T
Indication of Danger
Very toxic.

Risk Statements
R: 26/27/28 41 42/43
Very toxic by inhalation, in contact with skin and if swallowed. Risk of serious damage to eyes. May cause sensitization by inhalation and skin contact.

Safety Statements
S: 22 26 28 36/37/39 45
Do not breathe dust. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of polyethylene glycol in ethanol. Wear suitable protective clothing, gloves, and eye/face protection. 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
Highly Toxic (USA) Very Toxic (EU).

Risk Statements
Vary toxic by inhalation, in contact with skin and if swallowed. Risk of serious damage to eyes.

Safety Statements
Do not breathe dust. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

US Statements
Lachrymator. Target organ(s): Eyes.

United States Regulatory Information
SARA Listed: No

United States - State Regulatory Information
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.

DSD: No
NGSIL: No

Section 16 - Other Information

Disclaimer
For R&D use only. Not for drug, household 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 2006 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.