

Safety Data Sheet


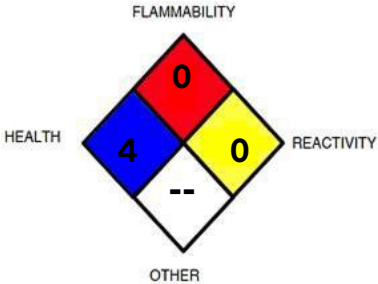
Section 1: Product & Company Identification

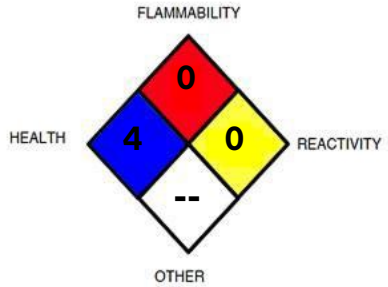
Product Name:	Hygromycin B, Solid
Product #:	H-1012-SOLID
Synonyms:	Hygrovetine; Hygrovectine; D-streptamine
Supplier:	AG Scientific Holdings, LLC 9950 Scripps Lake Drive, Suite 104 San Diego CA 92131 Tele# + 858-452-9925
Emergency Tele#:	ChemTel, Tele# in USA 1-800-255-3924, International 1-813-248-0585

Section 2: Composition / Information on Ingredients

Component	CAS#	EC #	% Composition
Hygromycin B	31282-04-9	-	≥90%

Section 3: Hazards Identification

Symbols	
HMIS Classification	<p>FLAMMABILITY</p> <p>HEALTH</p> <p>REACTIVITY</p> <p>OTHER</p> 

NFPA Classification	
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Section 4: First Aid Measures

General Overview:	Consult a physician if necessary. Remove to fresh air.
Inhalation:	Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.
Skin:	Wash skin with soap and water.
Eyes:	Wash with plenty of water.
Ingestion:	Never give anything by mouth to an unconscious person. Clean mouth with water.
	See section 11 for more detailed information on health effects & symptoms.

SECTION 5: Fire Fighting Measures

Flammability of the product:	No data available
Extinguishing Media:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Hazardous thermal (de)composition products:	Carbon oxides, Nitrogen oxides (NO _x)
Special Fire Fighting Procedures:	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Flash Point:	No data available

Section 6: Accidental Release Measures





Personal Precautions:	Ensure adequate ventilation, especially in confined areas.
Environmental Precautions:	See Section 12 for additional Ecological Information.
Methods for Clean-up:	Prevent further leakage or spillage if safe to do so. Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in

	appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly.
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SECTION 7: Handling & Storage

Storage:	Keep containers tightly closed in a dry, cool and well-ventilated place. Store at -20 °C.
Handling:	Handle in accordance with good industrial hygiene and safety practice.

SECTION 8: Exposure controls / Personal Protection

Respiratory Protection:	 <p>If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.</p>
Skin and Body:	  <p>Wear protective gloves and protective clothing.</p>
Eyes:	 <p>Wear safety glasses with side shields (or goggles).</p>
Ventilation/Engineering Measures:	Showers, eyewash stations, ventilation systems

Hygiene:	Handle in accordance with good industrial hygiene and safety practice.
Other:	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region-specific regulatory bodies.

SECTION 9: Physical and Chemical Properties

Appearance & Odor:	Cream colored powder
Formula	$C_{20}H_{37}N_3O_{13}$
Molecular Wt.	527.5
Melting Pt.	No data available
Boiling Pt.	No data available
Density:	No data available
Vapor Pressure:	No data available
Evaporation Rate:	No data available
Vapor Density:	No data available
Solubility:	Water
Flash Point:	No data available
Autoignition Temp:	No data available

SECTION 10: Stability and Reactivity

Stability:	Stable under recommended storage conditions.
Hazardous decomposition products:	Carbon oxides, Nitrogen oxides (NOx)
Materials to Avoid:	Strong oxidizing agents
Conditions to avoid:	Extremes of temperature and direct sunlight

SECTION 11: Toxicological Information

RTECS#:	WK2130000
ACUTE Toxicity:	<p>Very toxic. LD50 Oral = 13 mg/kg (Rat) LD50 Inhalation = 2.22 mg/L (Rat) 4h LD50 Intraperitoneal = 63 mg/kg (Rat) LD50 Intravenous = 6 mg/kg (Mouse) LD50 Intraperitoneal = 13 mg/kg (Guinea Pig)</p> <p>May be fatal if inhaled, swallowed, or absorbed through skin. Strong sensitizer. Causes severe eye irritation, lachrymator.</p>

	<p>Causes skin irritation. Material is irritating to mucous membranes and upper respiratory tract. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. Exposure can cause: Conjunctivitis, Dermatitis. Target organs: mucous membranes, skin, eyes. Sense Organs and special senses (other olfaction effects) Sense Organs and special senses (Conjunctiva irritation)</p>
CHRONIC Toxicity:	N/A
Chronic Exposure: Carcinogen: Mutagen: Teratogen: Reproductive:	<p>IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, potential human carcinogen by ACGIH. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as known or anticipated human carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as known or potential human carcinogen by OSHA. EPA: No classification on carcinogenic data is available from EPA</p>

SECTION 12: Ecological Information

Ecotoxicity:	May cause long lasting harmful effects to aquatic life.
Mobility:	No data available
Persistence and degradability:	No data available
Bioaccumulative potential:	No data available
Other adverse effects:	No data available
Corrosivity Characteristic:	No data available
General Notes:	To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

SECTION 13: Disposal Considerations

Residue Waste or Unused product:	Only professional staff trained in such techniques must undertake waste disposal. Observe all appropriate federal, provincial or state and local regulations.
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Contaminated Packaging:	Do not re-use empty containers. Dispose of as unused product.
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SECTION 14: Transportation Information

UN ID#:	2811
ADR / RID (LAND):	Toxic solid, organic, n.o.s. (Hygromycin B) Class 6.1 Packing II
DOT regulations:	Toxic solid, organic, n.o.s. (Hygromycin B) Class 6.1 Packing II
IMDG/IMO (SEA):	Toxic solid, organic, n.o.s. (Hygromycin B) Class 6.1 Packing II
IATA/DGR (AIR):	Toxic solid, organic, n.o.s. (Hygromycin B) Class 6.1 Packing II
Special Provisions:	N/A

SECTION 15: Regulatory Information

Health Phrases:	H300: Acute toxicity, Oral Cat. 2 H330: Acute toxicity, Inhalation Cat. 1 H310: Acute toxicity, Dermal Cat. 2 H318: Serious eye damage Cat. 1 H334: Respiratory sensitization Cat. 1
Risk Phrases:	R26/27/28: Very toxic by inhalation, in contact with skin and if swallowed. R37/38: Irritating to respiratory system and skin. R41: Risk of serious damage to eyes.
Safety Phrases:	S23: Do not breathe vapor. S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S28: After contact with skin, wash with copious amounts of water. S36/37/39: Wear suitable protective clothing, gloves and eye/face protection
EU Regulations:	N/A
US Regulations:	TSCA: No products listed California Proposition 65: No products listed Pennsylvania Right to Know: Hygromycin B (CAS 31282-04-9) New Jersey Right to Know: Hygromycin B (CAS 31282-04-9)
U.S. Federal Regulations:	SARA 302/304/311/312 extremely hazardous substances: No products were found SARA 302/304 emergency planning and notification: No products were found. SARA 302/304/311/312 hazardous chemicals: No products were found. SARA 311/312 MSDS distribution-chemical inventory-hazard identification: No products were found.

	<p>SARA 313 toxic chemicals notification and release reporting: No products were found.</p> <p>Clean Water Act (CWA) 307: No products were found. Clean Water Act (CWA) 311: No products were found. Clean Air Act (CAA) 112 accidental release prevention: No products were found. Clean Air Act (CAA) 112 regulated flammable substances: No products were found. Clean Air Act (CAA) 112 regulated toxic substances: No products were found.</p> <p>OSHA: Target Organ Effect, Highly toxic by inhalation, Highly toxic by ingestion, Highly toxic by skin absorption, Respiratory sensitizer, Irritant</p>
WHMIS (Canada):	N/A

SECTION 16: Other Information

LIABILITY STATEMENT: *The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. AG Scientific shall not be held liable for any damages resulting from handling or from contact with the above product. AG Scientific products are for research purposes only. Not for human use or consumption.*