

Material Safety Data Sheet

★ SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers Product name : Valnemulin Hydrochloride REACH No. : Not available. CAS No.: 133868-46-9

1.2 Relevant identified uses of the substance or mixture and uses advised against Identified uses:

Details of the supplier of the safety data sheet Company: Banff Green Technologies, Inc. Address: Floor 29, CapitaMalls Plaza, No. 6088 Humin Rd., Minhang Dist., Shanghai 201100 CHINA Telephone/Fax: +86 21-54795870 E-mail address: sales@banffgt.com 1.3 Emergency telephone number Emergency Phone #: +86 21-61995660

Target Organs: No data available OSHA Hazards: No known OSHA hazards GHS Classification: Not a dangerous substance according to GHS. GHS Label elements: No data available HMIS Classification: Health hazard: 0 Flammability: 0 Physical hazards: 0 NFPA Rating: Health hazard: 0 Fire: 0 Reactivity Hazard: 0

In case of accident or if you feel unwell, seek medical advice immediately (show label when possible). Wear suitable protective clothing, gloves and eye/ face protection.

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★ SECTION 3: Composition/information on ingredients

Molecular Formula: C₃₁H₅₃ClN₂O₅S Molecular Weight: 601.28 Boiling point: Density: Flash point:

★ SECTION 4: First aid measures

General information

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Eyes: Flush with copious amounts of water; call a physician.

Skin: Wash off with soap and plenty of water. Remove contaminated clothing and shoes. Consult a physician.

Ingestion: Do NOT induce vomiting. Wash out mouth with copious amounts of water. Never give anything by mouth to an unconscious person. Consult a physician.

Inhalation: If breathed in, move person into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Consult a physician.

Notes to Physician:

★ SECTION 5: Firefighting measures

Extinguishing Media

Water spray. Carbon dioxide, dry chemical powder or appropriate foam.

Special fire fighting procedures

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Unusual fire and explosion hazards/decomposition of product

Emits toxic fumes under fire conditions.

★ SECTION 6: Accidental release measures

Spills/Leaks

Sweep up, absorb solutions with finely-powdered liquid-binding material (diatomite, universal binders), decontaminate surfaces and equipment by scrubbing with alcohol, avoid raising dust, place in a bag and hold for waste disposal. Ventilate area and wash spill site after material pickup is



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complete.

Personal precautions

Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust. Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves.

★ SECTION 7: Handling and storage

Handling

Avoid contact with skin, eyes and clothing. Avoid formation of dust and aerosols. Avoid inhalation. Material may be an irritant.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Storage

Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: 2 - 8° C.

★ SECTION 8: Exposure controls/personal protection

Contains no substances with occupational exposure limit values.

Engineering Controls

Use only in a chemical fume hood.

Personal Protective Equipment

Eyes:

Chemical safety goggles with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Skin:

Handle with chemical-resistant rubber gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Clothing:

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. **Breathing:**

NIOSH/MSHA-approved respirator

Respirators:

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as



NIOSH (US) or CEN (EU).

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

★ SECTION 9: Physical and chemical properties

Molecular Formula: C ₃₁ H ₅₃ ClN ₂ O ₅ S
Molecular Weight: 601.28
Boiling point:
Density:
Flash point:

★ SECTION 10: Stability and reactivity

Chemical stability Stable under recommended storage conditions.

Conditions to avoid:

Protect from light and heat.

Incompatibilities with Other Materials:

Strong oxidizing agents.

Hazardous combustion or Decomposition products

Hazardous combustion or decomposition products thermal decomposition may produce carbon monoxide, carbon dioxide, nitrogen oxides and sulfur oxides.

★ SECTION 11: Toxicological information

Potential Health Effects

Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

Skin: May cause skin irritation. May be harmful if absorbed through the skin.

Eyes: May cause eye irritation.

Ingestion: May be harmful if swallowed.

Signs and Symptoms of Exposure

Amino glycosides are associated with significant nephrotoxicity and/or ototoxicity.

Toxicity data: LD50: No data available



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Carcinogenicity 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 a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Chronic exposure

Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals. Laboratory experiments have shown teratogenic effects.

Only selected registry of toxic effects of chemical substances (RTECS) data is presented here. See actual entry in trees for complete information.



Offer surplus and non-recyclable solutions to a licensed disposal company. 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. Contaminated packaging

Dispose of as unused product.

★ SECTION 14: Transport information

Non-Hazardous for transport: This substance is considered to be non-hazardous for transport.

★ SECTION 15: Regulatory information

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III,



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Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313. SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

★ SECTION 16: Other information

This material must only be handled by suitably qualified experienced scientists in appropriately equipped and authorized facilities. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide and only for experienced personnel. 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. Always consult your safety advisor and follow appropriate local and national safety legislature. The absence of warning must not, under any circumstance, be taken to mean that no hazard exists. Banff Green Technologies, Inc. disclaims all liability for any damage resulting from handling or from contact with the above product.