1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Product name : Avermectin B1
Catalog No. : HY-15311
CAS No. : 71751-41-2

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

Identified uses : Laboratory chemicals, manufacture of substances.

1.3 Details of the supplier of the safety data sheet

Company : MedChemExpress USA
Tel: 609-228-6898
Fax: 609-228-5909
E-mail: sales@medchemexpress.com

1.4 Emergency telephone number

Emergency Phone #: 609-228-6898

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
- Acute toxicity, Oral (Category 1), H300
- Acute toxicity, Inhalation (Category 4), H332
- Acute aquatic toxicity (Category 1), H400
- Chronic aquatic toxicity (Category 1), H410

2.2 GHS Label elements, including precautionary statements

Signal word Danger
Hazard statement(s)
H300 Fatal if swallowed.
H332 Harmful if inhaled.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P321 Specific treatment (see supplemental first aid instructions on this label).
P330 Rinse mouth.
P391 Collect spillage.
P401 Store locked up.
P501 Dispose of contents/container to an approved waste disposal plant

2.3 Other hazards
None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

<table>
<thead>
<tr>
<th>Synonyms</th>
<th>Abamectin; Avermectin B1a-Avermectin B1b mixt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula</td>
<td>$C_{95}H_{144}O_{28}$</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>1732.13</td>
</tr>
<tr>
<td>CAS No.</td>
<td>71751-41-2</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

4.1 Description of first aid measures

Eye contact
Remove any contact lenses, locate eye-wash station, and flush eyes immediately with large amounts of water. Separate eyelids with fingers to ensure adequate flushing. Promptly call a physician.

Skin contact
Rinse skin thoroughly with large amounts of water. Remove contaminated clothing and shoes and call a physician.

Inhalation
Immediately relocate self or casualty to fresh air. If breathing is difficult, give cardiopulmonary resuscitation (CPR). Avoid mouth-to-mouth resuscitation.

Ingestion
Wash out mouth with water; Do NOT induce vomiting; call a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2).

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media
Use water spray, dry chemical, foam, and carbon dioxide fire extinguisher.

5.2 Special hazards arising from the substance or mixture

During combustion, may emit irritant fumes.

5.3 Advice for firefighters

Wear self-contained breathing apparatus and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use full personal protective equipment. Avoid breathing vapors, mist, dust or gas. Ensure adequate ventilation. Evacuate personnel
to safe areas.
Refer to protective measures listed in sections 8.

6.2 Environmental precautions
Try to prevent further leakage or spillage. Keep the product away from drains or water courses.

6.3 Methods and materials for containment and cleaning up
Absorb solutions with finely-powdered liquid-binding material (diatomite, universal binders); Decontaminate surfaces and equipment by scrubbing with alcohol; Dispose of contaminated material according to Section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid inhalation, contact with eyes and skin. Avoid dust and aerosol formation. Use only in areas with appropriate exhaust ventilation.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly sealed in cool, well-ventilated area. Keep away from direct sunlight and sources of ignition.
Recommended storage temperature:
- Powder:
  - -20°C: 3 years
  - 4°C: 2 years
- In solvent:
  - -80°C: 6 months
  - -20°C: 1 month
Shipping at room temperature if less than 2 weeks.

7.3 Specific end use(s)
No data available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
Components with workplace control parameters
This product contains no substances with occupational exposure limit values.

8.2 Exposure controls
Engineering controls
Ensure adequate ventilation. Provide accessible safety shower and eye wash station.

Personal protective equipment
- Eye protection: Safety goggles with side-shields.
- Hand protection: Protective gloves.
- Skin and body protection: Impervious clothing.
- Respiratory protection: Suitable respirator.
- Environmental exposure controls: Keep the product away from drains, water courses or the soil. Clean spillages in a safe way as soon as possible.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
- Appearance: Light yellow to yellow (Solid)
- Odor: No data available
- Odor threshold: No data available
- pH: No data available
- Melting/freezing point: No data available
- Boiling point/range: No data available
Flash point: No data available
Evaporation rate: No data available
Flammability (solid, gas): No data available
Upper/lower flammability or explosive limits: No data available
Vapor pressure: No data available
Vapor density: No data available
Relative density: No data available
Water Solubility: No data available
Partition coefficient: No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity: No data available
Explosive properties: No data available
Oxidizing properties: No data available

9.2 Other safety information
No data available.

10. STABILITY AND REACTIVITY

10.1 Reactivity
No data available.

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
No data available.

10.4 Conditions to avoid
No data available.

10.5 Incompatible materials
Strong acids/alkalis, strong oxidising/reducing agents.

10.6 Hazardous decomposition products
Under fire conditions, may decompose and emit toxic fumes.
Other decomposition products - no data available.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
Classified based on available data. For more details, see section 2

Skin corrosion/irritation
Classified based on available data. For more details, see section 2

Serious eye damage/irritation
Classified based on available data. For more details, see section 2

Respiratory or skin sensitization
Classified based on available data. For more details, see section 2

Germ cell mutagenicity
Classified based on available data. For more details, see section 2

Carcinogenicity
IARC: No component of this product present at a level equal to or greater than 0.1% is identified as probable, possible or
confirmed human carcinogen by IARC.
ACGIH: No component of this product present at a level equal to or greater than 0.1% is identified as a potential or confirmed carcinogen by ACGIH.
NTP: No component of this product present at a level equal to or greater than 0.1% is identified as a anticipated or confirmed carcinogen by NTP.
OSHA: No component of this product present at a level equal to or greater than 0.1% is identified as a potential or confirmed carcinogen by OSHA.

**Reproductive toxicity**
Classified based on available data. For more details, see section 2

**Specific target organ toxicity - single exposure**
Classified based on available data. For more details, see section 2

**Specific target organ toxicity - repeated exposure**
Classified based on available data. For more details, see section 2

**Aspiration hazard**
Classified based on available data. For more details, see section 2

**Additional information**
RTECS No.: CL1203000
This information is based on our current knowledge. However the chemical, physical, and toxicological properties have not been completely investigated.

### 12. ECOLOGICAL INFORMATION

12.1 **Toxicity**
   No data available.

12.2 **Persistence and degradability**
   No data available.

12.3 **Bioaccumulative potential**
   No data available.

12.4 **Mobility in soil**
   No data available.

12.5 **Results of PBT and vPvB assessment**
   PBT/vPvB assessment unavailable as chemical safety assessment not required or not conducted.

12.6 **Other adverse effects**
   No data available.

### 13. DISPOSAL CONSIDERATIONS

13.1 **Waste treatment methods**
   **Product**
   Dispose substance in accordance with prevailing country, federal, state and local regulations.
   **Contaminated packaging**
   Conduct recycling or disposal in accordance with prevailing country, federal, state and local regulations.

### 14. TRANSPORT INFORMATION

**DOT (US)**
   UN number: 2811
   Class: 6.1
   Packing group: I
   Proper shipping name: Toxic solids, organic, n.o.s. (Abamectin)
   Reportable Quantity (RQ):
Marine pollutant: No
Poison Inhalation Hazard: No

**IMDG**
UN number: 2811
Class: 6.1
Packing group: I
EMS-No: F-A, S-A
Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (Abamectin)
Marine pollutant: No

**IATA**
UN number: 2811
Class: 6.1
Packing group: I
Proper shipping name: Toxic solid, organic, n.o.s. (Abamectin)

15. **REGULATORY INFORMATION**

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

16. **OTHER INFORMATION**

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Caution: Product has not been fully validated for medical applications. For research use only.
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