SAFETY DATA SHEET
Bermectine 1.8% EC

Abamectin 1.8%

SECTION 1. IDENTIFICATION OF THE SUBSTANCE & Manufacturer

-Common Name:  Abamectin
-Chemical Name:
5-O-demethylavermectin A\textsubscript{1a} (i) mixture with
5-O-demethyl-25-de(1-methylpropyl)-25-(1-methylethyl)avermectin A\textsubscript{1a} (ii)

-Mol. Formula:  $C_{48}H_{72}O_{14}$ (avermectin B1a); $C_{47}H_{70}O_{14}$ (avermectin B1b)
-Mol. Wt.:  873.1 (B1a); 860.1 (B1b)
-Structure:

(i)  $R = -CH_{2}CH_{3}$ (avermectin B\textsubscript{1a})
(ii)  $R = -CH_{3}$ (avermectin B\textsubscript{1b})

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

CAS No.:  71751-41-2

<table>
<thead>
<tr>
<th>Substance</th>
<th>Conc.</th>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inert ingredient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abamectin</td>
<td>1.8%</td>
<td>Insecticide</td>
</tr>
<tr>
<td>Inert ingredient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emulsifier</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>Solvent</td>
<td>Up to 100%</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
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</table>
SECTION 3. HAZARDS IDENTIFICATION

Symptoms of Acute Exposure
Exposure results in moderate irritate to the eyes. A skin sensitization (allergic) reaction may occur in some individuals.
**Hazardous Decomposition Products:** Not known.

SECTION 4. FIRST AID MEASURES

**Ingestion**
If victim is conscious and alert, give 2-3 glasses of water to drink and induce vomiting by toughing back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person. Seek immediate medical attention.

**Eye**
Rinse with water for 15-20 minutes.

**Skin**
Rinse skin immediately with plenty of water for 15-20 minutes.

**Inhalation**
If inhaled, move person to fresh air. If person is not breathing, give artificial respiration, preferably mouth-to-mouth if possible.

**Note to physician**
There is no specific antidote. Treat symptomatically.

SECTION 5. FIRE FIGHTING MEASURES

**Flammability:** Not flammable

**Extinguishing media:** Soft stream water fog or foam. Contain all runoff

**Thermal decomposition products:** Non known

**Special fire fighting methods:**
Isolate fire area. Evacuate downwind residents. Wear full protective clothing and self contained breathing apparatus. Do not breathe or contact smoke, gases or vapors generated. Try to keep containers cool with soft stream water fog.

**Unusual fire or explosion hazards:**
Thermal decomposition products may include, but are not limited to, Carbon Monoxide and Carbon Dioxide. This product is combustible liquid.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Use appropriate protective equipment. Spills should be cleaned up immediately.
Large spill:
dike and pump as much as possible to a salvage container. Absorb the remaining liquid and any small spills with clay granules, sand or other absorbent material and sweep to a waste container. Cover the spill area with water and absorb. Minimize runoff into waterways or drains.

SECTION 7. HANDLING AND STORAGE

Store the material in a well ventilated, secure area out of reach of children and domestic animals. Do not store food, drink in areas where they may become contaminated with this material. Keep container tightly closed. Keep away from heat, sparks and flames. Wash thoroughly after handling.

SECTION 8. EXPOSURE CONTROL/PERSONAL PROTECTION

Applicators and other handlers must wear:
Coveralls over short-sleeved shirt and short pants.
Chemical-resistant footwear plus socks.
Chemical-resistant gloves, such as barrier laminate or butyl rubber.
Protective eyewear.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: Light brown liquid with weakly aromatic odor
- Density: 0.95 (25°C)
- pH: 4.0-7.5
- Corrosion: Non-corrosive
- Solubility: Product emulsifies in water
- Content: Abamectin: 1.8%

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal temperatures and storage conditions.
Condition to avoid: Extremely heat, unstable above 50°C
Materials to avoid: Strong oxidizers, acids, bases
Polymerization: Polymerization will not occur.
Hazardous decomposition products: Non known.
SECTION 11. TOXICOLOGICAL INFORMATION

Ingestion: Acute Oral LD50 for rats 650 mg/kg
Dermal: Acute Dermal LD50 for rabbits >2000mg/kg
Inhalation: LC50 for rats 1.1mg/l
Skin contact: Irritating to skin (rabbits)
Eye contact: Irritating to eye (rabbits)
Skin sensitization: Not a skin sensitizer (Guinea pig)
Other: Non-mutagenic, non-teratogenic; no adverse effect on reproductive performance. Not neuro-toxic.
Toxicity class: WHO II, EPA IV

SECTION 12. ECOLOGICAL INFORMATION

This product is Highly toxic to aquatic organisms, but not bio-concentratable in fish. It is also highly toxic to honeybees, but low toxic to birds. Keep out of lakes, streams, ponds, tidal marshes, and estuaries. Do not contaminate water by cleaning of equipment or disposal of equipment wash water.

SECTION 13. DISPOSAL INSTRUCTION

Do not contaminate water, food, or feed by storage or disposal. Pesticide wastes are acutely hazardous. Triple rinse (or equivalent) the container. Then offer for recycling or reconditioning. If allowed by state and local authorities, by burning. If burned, stay out of smoke.

SECTION 14. TRANSPORT INFORMATION

Transport Classification: Road & Rail (ADG), Sea (IMDG)
UN NO.: 2902
Shipping Name: Pesticide, liquid, toxic, N.O.S. (contains Abamectin)
UN class: 6.1
Packing Group: III
Other Info: Abamectin, Marring Pollutant

SECTION 15. REGULATORY INFORMATION

Acute: Yes
Chronic: No
Fire: No
Reactivity: No
Read and follow all label directions.
SECTION 16. OTHER INFORMATION

The data given here is based on current knowledge and experience. The purpose of this safety data sheet is to describe the products in terms of their safety requirements.

Proper use is as an agricultural insecticide. Use according to label instructions.