1. PRODUCT IDENTIFICATION

Product Name: DENIM INSECTICIDE

EPA Signal Word: Danger

Active Ingredient(%): Emamectin Benzoate (2.15%)

Chemical Name: Avermectin B1, 4”-deoxy-4”-(methylamino)-,(4”R)-, benzoate (salt)

Chemical Class: Insecticide

CAS No.: 155569-91-8

EPA Registration Number(s): 100-903

Section(s) Revised: 3, 8, 15

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Material</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral Oil</td>
<td>5 mg/m³</td>
<td>5 mg/m³ (mist); 10 mg/m³ (STEL)</td>
<td>No</td>
</tr>
<tr>
<td>Organic Solvent</td>
<td>Not Established</td>
<td>Not Established</td>
<td>No</td>
</tr>
<tr>
<td>Butylated Hydroxytoluene (BHT)</td>
<td>Not Established</td>
<td>2 mg/m³ TWA (inhalable)</td>
<td>IARC Group 3</td>
</tr>
<tr>
<td>Emamectin Benzoate (2.15%)</td>
<td>Not Established</td>
<td>0.02 mg/m³ TWA **</td>
<td>No</td>
</tr>
</tbody>
</table>

** recommended by NIOSH

*** Syngenta Occupational Exposure Limit (OEL)

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

Syngenta Hazard Category: C, S

3. HAZARDS IDENTIFICATION

Symptoms of Acute Exposure
Causes severe eye irritation. Injury may be permanent. Irritating to skin. Inhalation can cause irritation to the respiratory tract and can result in chemical pneumonitis if aspirated. Ingestion results in central nervous system effects such as muscle tremors, decreased activity, ataxia (unsteadiness or incoordination), and dilated pupils (mydriasis).

Vapors may cause drowsiness and dizziness.

Hazardous Decomposition Products
May decompose at high temperatures forming toxic gases.

Physical Properties
Appearance: Pale yellow-green liquid
Odor: Sweet, oily

Unusual Fire, Explosion and Reactivity Hazards
Combustible liquid. Can release vapors that form explosive mixtures at temperatures at or above the flash point. Heavy vapors can flow along surfaces to distant ignition sources and flash back.
During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.
4. FIRST AID MEASURES

Have the product container, label or Material Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison control center or doctor, or going for treatment.

Ingestion: If swallowed: Call Syngenta (800-888-8372), a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so after calling 800-888-8372 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Eye Contact: If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

Skin Contact: If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

Inhalation: If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call Syngenta (800-888-8372), a poison control center or doctor for further treatment advice.

Notes to Physician

Medical Condition Likely to be Aggravated by Exposure

None known.

5. FIRE FIGHTING MEASURES

Fire and Explosion

Flash Point (Test Method): 143°F
Flammable Limits (% in Air): Lower: 1.0%  Upper: 8.0%
Autoignition Temperature: 559°F
Flammability: Combustible liquid

Unusual Fire, Explosion and Reactivity Hazards

Combustible liquid. Can release vapors that form explosive mixtures at temperatures at or above the flash point. Heavy vapors can flow along surfaces to distant ignition sources and flash back. During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

In Case of Fire

Use appropriate extinguishing media for combustibles in the area. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions in Protective Equipment Section. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.
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, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Ingestion: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Eye Contact: Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Skin Contact: Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.

Inhalation: A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

In case of emergency spills, use a NIOSH approved respirator with any R, P or HE filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Pale yellow-green liquid
Odor: Sweet, oily
Melting Point: Not Applicable
Boiling Point: Not Available
Specific Gravity/Density: 0.90g/ml @ 77°F (25°C)
pH: 5.58

Solubility in H2O
Emamectin Benzoate: 30 - 50 ppm (pH 7)

Vapor Pressure
Emamectin Benzoate: 3 x 10(-8) mmHg @ 70°F

10. STABILITY AND REACTIVITY

Stability: Stable under normal use and storage conditions.
Hazardous Polymerization: Will not occur.
Conditions to Avoid: Heat; light.
Materials to Avoid: Strong oxidizers.
Hazardous Decomposition Products: May decompose at high temperatures forming toxic gases.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies (Finished Product)

Ingestion: Slightly Toxic
   Oral (LD50 Rat) : = 2,950 mg/kg body weight
Dermal: Slightly Toxic
   Dermal (LD50 Rabbit) : > 2,000 mg/kg body weight
Inhalation: Practically Non-Toxic
   Inhalation (LC50 Rat) : = 9.6 mg/l air - 4 hours
Eye Contact: Severely Irritating (Rabbit)
Skin Contact: Slightly Irritating (Rabbit)
Reproductive/Developmental Effects
Emamectin Benzoate: Developmental and reproductive toxicity observed in dosages that are toxic to mature animals.

Chronic/Subchronic Toxicity Studies
Emamectin Benzoate: Tremors and nerve lesions observed at lowest dose tested in rabbits. Bladder changes reported in rats.

Carcinogenicity
Emamectin Benzoate: None observed.

Other Toxicity Information
None

Toxicity of Other Components
Butylated Hydroxytoluene (BHT)
Listed as an IARC (Group 3) carcinogen not classifiable as human (no data available) with limited animal evidence. Exposure may result in irritation to eyes, skin and respiratory tract. Ingestion may cause diarrhea, respiratory depression, tremors, and chronic pulmonary edema or congestion and hemorrhage.

Mineral Oil
May cause respiratory irritation when inhaled as a mist.

Organic Solvent
Exposure can cause eye irritation. Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.

Target Organs
Active Ingredients
Emamectin Benzoate: Central nervous system, bladder
Inert Ingredients
Butylated Hydroxytoluene (BHT): Eye, skin, respiratory tract
Mineral Oil: Respiratory tract
Organic Solvent: Skin, eye

12. ECOLOGICAL INFORMATION

Summary of Effects
Emamectin Benzoate
Very toxic to aquatic organisms. Toxic to bees. May cause long-term adverse effects in the environment.

Eco-Acute Toxicity
Emamectin Benzoate Bees LC50/EC50 0.0036 ug/bee
Invertebrates (Water Flea) LC50/EC50 0.001 ppm
Fish (Trout) LC50/EC50 0.174 ppm
Fish (Bluegill) LC50/EC50 0.18 ppm
Birds (8-day dietary - Bobwhite Quail) LC50/EC50 1,318 ppm
Birds (8-day dietary - Mallard Duck) LC50/EC50 570 ppm

Eco-Chronic Toxicity
Emamectin Benzoate Not Available

Environmental Fate
Emamectin Benzoate:
The information presented here is for the active ingredient, emamectin benzoate. Low bioaccumulation potential. Persistent in soil. Stable in water. Immobile in soil. Sinks in water (after 24 h).
13. DISPOSAL CONSIDERATIONS

Disposal
Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable
Listed Waste: Not Applicable

14. TRANSPORT INFORMATION

DOT Classification
Ground Transport - NAFTA
Not regulated.

B/L Freight Classification
Insecticides, NOI, O/T Poison

Comments
None.

15. REGULATORY INFORMATION

EPCRA SARA Title III Classification
Section 311/312 Hazard Classes: Acute Health Hazard
Fire Hazard

Section 313 Toxic Chemicals: Not Applicable

California Proposition 65
Not Applicable

CERCLA/SARA 302 Reportable Quantity (RQ)
None

RCRA Hazardous Waste Classification (40 CFR 261)
Not Applicable

TSCA Status
Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA Hazard Ratings</th>
<th>HMIS Hazard Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health:</td>
<td>2</td>
</tr>
<tr>
<td>Flammability:</td>
<td>2</td>
</tr>
<tr>
<td>Instability:</td>
<td>0</td>
</tr>
<tr>
<td>Health:</td>
<td>2</td>
</tr>
<tr>
<td>Flammability:</td>
<td>2</td>
</tr>
<tr>
<td>Reactivity:</td>
<td>0</td>
</tr>
</tbody>
</table>

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 2/11/1999
Revision Date: 11/14/2006
Replaces: 2/6/2004

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.
RSVP# : Not Applicable

End of MSDS