1. PRODUCT IDENTIFICATION

Product Name: TREE-äge  
EPA Signal Word: Warning  
Product No.: A16297A

2. HAZARDS IDENTIFICATION

Health and Environmental
Causes eye and skin irritation. May be harmful if swallowed. Harmful if inhaled. Vapors may cause drowsiness and dizziness.
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).

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

Physical Properties
Appearance: Blue liquid
Odor: Aromatic

Unusual Fire, Explosion and Reactivity Hazards
During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Material</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Other</th>
<th>NTP/IARC/OSHA Carcinogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrahydrofurfuryl Alcohol (THFA)</td>
<td>Not Established</td>
<td>Not Established</td>
<td>2 ppm (TWA) ****</td>
<td>No</td>
</tr>
<tr>
<td>Emamectin Benzoate (4%)</td>
<td>Not Established</td>
<td>Not Established</td>
<td>0.02 mg/m³ TWA ***</td>
<td>No</td>
</tr>
</tbody>
</table>

**** Syngenta Occupational Exposure Limit (OEL)  
***** Recommended by AIHA (American Industrial Hygiene Association)

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.
Syngenta Hazard Category: C, S

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**

Contains petroleum distillate - vomiting may cause aspiration pneumonia.

Early signs of intoxication include dilation of pupils, muscular incoordination and muscular tremors. Vomiting within one-half hour of exposure can minimize toxicity following accidental ingestion of the product; rapidly after exposure (<15 minutes) administer repeatedly medical charcoal in a large quantity of water or ipecac. If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parental fluid replacement therapy should be given, along with other required supportive measures (such as maintenance of blood pressure levels and proper respiratory functionality) as indicated by clinical signs, symptoms and measurements.

In severe cases, observations should continue for at least several days until clinical condition is stable and normal. Since emamectin benzoate is believed to enhance GABA activity in animals, it is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, valproic acid) in patients with potentially toxic emamectin benzoate exposure.

**Medical Condition Likely to be Aggravated by Exposure**

None known.

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### 5. FIRE FIGHTING MEASURES

**Fire and Explosion**

- Flash Point (Test Method): > 226°F (Pensky-Martens CC)
- Flammable Limits (% in Air): Lower: Not Applicable  Upper: Not Applicable
- Autoignition Temperature: 662°F
- Flammability: Not Applicable

**Unusual Fire, Explosion and Reactivity Hazards**

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

**In Case of Fire**

Use dry chemical, foam or CO2 extinguishing media. 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.

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### 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 outlined in Section 8. 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 gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride [PVC] or Viton), 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: Blue liquid
Odor: Aromatic
Melting Point: Not Applicable
Boiling Point: Not Available
Specific Gravity/Density: 1.08 g/cm³ @ 68°F (20°C)

pH: 4.6 (1% solution in deionized H2O @ 77°F [25°C])

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

Vapor Pressure
Emamectin Benzoate: 3 x 10(-8) mmHg @ 70°F (21°C)

10. STABILITY AND REACTIVITY

Stability: Stable under normal use and storage conditions.
Hazardous Polymerization: Will not occur.
Conditions to Avoid: None known.
Materials to Avoid: None known.
Hazardous Decomposition Products: May decompose at high temperatures forming toxic gases.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies (Finished Product)

Ingestion: Oral (LD50 Female Rat) : 3129 mg/kg body weight
Dermal: Dermal (LD50 Rat) : > 5000 mg/kg body weight

Product Name: TREE-äge
12. ECOLOGICAL INFORMATION

Summary of Effects
Emamectin Benzoate:
Very toxic to aquatic life with long lasting effects.

Ecotoxicity Effects
Emamectin Benzoate:
- Fish (Rainbow Trout) 96-hour LC50 174 ppb
- Fish (Bluegill Sunfish) 96-hour LC50 180 ppb
- Green Algae 5-day EC50 > 3.9 ppb
- Bird (Bobwhite Quail) LD50 Oral 264 mg/kg
- Bee (Contact) LD50 0.0035 ug/bee
- Invertebrate (Water Flea) 48-hour EC50 1.0 ppb

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

Eye Contact: Severely Irritating (Rabbit)
Skin Contact: Slightly Irritating (Rabbit)
Skin Sensitization: Not a Sensitizer (Guinea Pig)
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 by US DOT.

Air Transport - NAFTA
Not regulated by US DOT.

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

Comments
Water Transport - International
Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Emamectin Benzoate), Marine Pollutant
Hazard Class or Division: Class 9
Identification Number: UN 3082
Packing Group: PG III
IMDG EMS #: F-A, S-F

Air Transport - International
Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Emamectin Benzoate), Marine Pollutant
Hazard Class or Division: Class 9
Identification Number: UN 3082
Packing Group: PG III
Packing Auth.: 914
Note: Max. inner container 5 liter; Max. single container 450 liter

15. REGULATORY INFORMATION

EPCRA SARA Title III Classification
Section 311/312 Hazard Classes: Acute Health 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>
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<tr>
<th>NFPA Hazard Ratings</th>
<th>HMIS Hazard Ratings</th>
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<th>2</th>
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</thead>
<tbody>
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<td>Health:</td>
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<td>Slight</td>
<td>Moderate</td>
<td>Serious</td>
<td>Extreme</td>
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<tr>
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<td>Flammability:</td>
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<td>1</td>
<td>1</td>
<td>3</td>
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<tr>
<td>Instability:</td>
<td>Reactivity:</td>
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End of MSDS