MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

Product Name: **MERTECT 340F**
EPA Signal Word: Caution
Active Ingredient(%): Thiabendazole (42.3%)
Chemical Name: 1H-Benzimidazole, 2-(4-thiazolyl)-
Chemical Class: Benzimidazole Fungicide

EPA Registration Number(s): 100-889

2. 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>Propylene Glycol</td>
<td>Not Established</td>
<td>Not Established</td>
<td>50 ppm TWA AIHA WEEL ****</td>
<td>No</td>
</tr>
<tr>
<td>Thiabendazole (42.3%)</td>
<td>Not Established</td>
<td>Not Established</td>
<td>10 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: B

3. HAZARDS IDENTIFICATION

Symptoms of Acute Exposure
- Irritating to eyes and skin.

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

Physical Properties
- Appearance: Liquid
- Odor: Aromatic; weak

Unusual Fire, Explosion and Reactivity Hazards
- 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. Have the person sip a glass of water if able to swallow. 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
5. FIRE FIGHTING MEASURES

Fire and Explosion
- Flash Point (Test Method): 210°F
- Flammable Limits (% in Air): Lower: % Not Applicable, Upper: % Not Applicable
- Autoignition Temperature: 1202°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.

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.

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
9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Aromatic; weak</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not Available</td>
</tr>
<tr>
<td>Specific Gravity/Density</td>
<td>1.14 - 1.17 g/cm³ @ 68°F - 77°F (20°C - 25°C)</td>
</tr>
<tr>
<td>pH</td>
<td>5.5 - 7.5(1% in deionized water)</td>
</tr>
<tr>
<td>Solubility in H2O</td>
<td></td>
</tr>
<tr>
<td>Thiabendazole</td>
<td>30mg/l (pH 7, pH 10) @ 68°F in water</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td></td>
</tr>
<tr>
<td>Thiabendazole</td>
<td>4.0 x 10(-9) mmHg @ 77°F</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability</td>
<td>Stable under normal use and storage conditions.</td>
</tr>
<tr>
<td>Hazardous Polymerization</td>
<td>Will not occur.</td>
</tr>
<tr>
<td>Conditions to Avoid</td>
<td>None known.</td>
</tr>
<tr>
<td>Materials to Avoid</td>
<td>None known.</td>
</tr>
<tr>
<td>Hazardous Decomposition Products</td>
<td>May decompose at high temperatures forming toxic gases.</td>
</tr>
</tbody>
</table>

11. TOXICOLOGICAL INFORMATION

**Acute Toxicity/Irritation Studies (Finished Product)**

<table>
<thead>
<tr>
<th>Route</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingestion</td>
<td>Practically Non-Toxic</td>
</tr>
<tr>
<td>Oral (LD50 Rat)</td>
<td>&gt;5,000 mg/kg body weight</td>
</tr>
<tr>
<td>Dermal</td>
<td>Practically Non-Toxic</td>
</tr>
<tr>
<td>Dermal (LD50 Rat)</td>
<td>&gt;5,050 mg/kg body weight</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Not Available</td>
</tr>
<tr>
<td>Inhalation (LC50 Rat)</td>
<td>Not Available</td>
</tr>
<tr>
<td>Eye Contact</td>
<td>Minimally Irritating (Rabbit)</td>
</tr>
<tr>
<td>Skin Contact</td>
<td>Practically Non-Irritating (Rabbit)</td>
</tr>
<tr>
<td>Skin Sensitization</td>
<td>Not a Sensitizer (Guinea Pig)</td>
</tr>
</tbody>
</table>

**Reproductive/Developmental Effects**

Thiabendazole: Evidence of developmental effects (skeletal defects, cleft palate) observed in animal studies.

**Chronic/Subchronic Toxicity Studies**

Thiabendazole: Increased incidence of anemia and changes in the gall bladder, kidney, liver, spleen and thyroid gland in rat and dog tests.

No adverse health effects are expected in humans at airborne levels below the occupational exposure limit.

**Carcinogenicity**

Thiabendazole: None observed.

**Other Toxicity Information**

None

**Toxicity of Other Components**

Comply with occupational exposure limits.

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

Summary of Effects

Thiabendazole
Very toxic to aquatic organisms. The aquatic toxicity is not increased significantly by chronic exposure. Does not bioaccumulate in fish and is rapidly metabolized.

Eco-Acute Toxicity

Thiabendazole
Invertebrates (Water Flea) LC50/EC50 0.81 ppm
Fish (Trout) LC50/EC50 0.55 ppm
Fish (Bluegill) LC50/EC50 19 ppm
Birds (8-day dietary - Bobwhite Quail) LC50/EC50 > 5,620 ppm
Birds (8-day dietary - Mallard Duck) LC50/EC50 > 5,620 ppm

Eco-Chronic Toxicity

Thiabendazole: Not Available

Environmental Fate

Thiabendazole:
The information presented here is for the active ingredient, thiabendazole.
Low bioaccumulation potential. Stable in soil and water. 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
Fungicides, NOI, O/T Poison

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

15. REGULATORY INFORMATION

Product Name: MERTECT 340F
EPCRA SARA Title III Classification
   Section 311/312 Hazard Classes: Acute Health Hazard
   Section 313 Toxic Chemicals: Thiabendazole (42.3%) (CAS No. 148-79-8)

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>Health:</td>
</tr>
<tr>
<td>Flammability:</td>
<td>Flammability:</td>
</tr>
<tr>
<td>Instability:</td>
<td>Reactivity:</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>0</th>
<th>Minimal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Slight</td>
</tr>
<tr>
<td>2</td>
<td>Moderate</td>
</tr>
<tr>
<td>3</td>
<td>Serious</td>
</tr>
<tr>
<td>4</td>
<td>Extreme</td>
</tr>
</tbody>
</table>

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 11/1/2006
Revision Date: Replaces:

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