

**Syngenta Crop Protection, Inc.**  
**Post Office Box 18300**  
**Greensboro, NC 27419**

**In Case of Emergency, Call**  
**1-800-888-8372**

**1. PRODUCT IDENTIFICATION**

Product Name:	<b>MERTECT 340F</b>	Product No.:	A10466F
EPA Signal Word:	Caution		
Active Ingredient(%):	Thiabendazole (42.3%)	CAS No.:	148-79-8
Chemical Name:	2-(thiazol-4-yl)benzimidazole		
Chemical Class:	Benzimidazole Fungicide		
EPA Registration Number(s):	100-889	<b>Section(s) Revised:</b>	<b>2</b>

**2. HAZARDS IDENTIFICATION**
**Health and Environmental**

Harmful if inhaled. Causes mild eye and skin irritation.

**Hazardous Decomposition Products**

None known.

**Physical Properties**

Appearance: White opaque 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.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Propylene Glycol	Not Established	Not Established	10 mg/m <sup>3</sup> TWA ****	No
Thiabendazole (42.3%)	Not Established	Not Established	10 mg/m <sup>3</sup> TWA ***	No

\*\*\* 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

**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 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

There is no specific antidote if this product is ingested.

Treat symptomatically.

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

None known.

## 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 gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride [PVC] or Viton), coveralls, socks and chemical-resistant footwear.
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 N, R, P or HE filter.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White opaque liquid
Odor:	Aromatic; weak
Melting Point:	Not Applicable
Boiling Point:	Not Available
Specific Gravity/Density:	1.14 - 1.17 g/cm <sup>3</sup> @ 68°F - 77°F (20°C - 25°C)
pH:	5.5 - 7.5 (1% in deionized water)

### Solubility in H<sub>2</sub>O

Thiabendazole: 30mg/l (pH 7, pH 10) @ 68°F in water

### Vapor Pressure

Thiabendazole: 4.0 x 10<sup>(-9)</sup> mmHg @ 77°F (25°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:	None known.

## 11. TOXICOLOGICAL INFORMATION

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

Ingestion:	Oral (LD50 Rat) :	> 5000 mg/kg body weight
Dermal:	Dermal (LD50 Rat) :	> 5050 mg/kg body weight
Inhalation:	Inhalation (LC50 Rat) :	> 2.63 mg/l air - 4 hours
Eye Contact:	Minimally Irritating (Rabbit)	
Skin Contact:	Practically Non-Irritating (Rabbit)	
Skin Sensitization:	Not a Sensitizer (Guinea Pig)	

### 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

##### Propylene Glycol

Test results reported in Section 11 for the final product take into account any acute hazards related to the propylene glycol in the formulation.

Reported to cause central nervous system depression (anesthesia, dizziness, confusion), headache and nausea.

Chronic dietary exposure caused kidney and liver injury in experimental animals.

#### Target Organs

##### Active Ingredients

Thiabendazole: Thyroid, liver, spleen, kidney, gall bladder, blood

##### Inert Ingredients

Propylene Glycol: CNS, kidney, liver

## 12. ECOLOGICAL INFORMATION

#### Summary of Effects

##### Thiabendazole:

Very toxic to aquatic life.

#### Ecotoxicity Effects

##### Thiabendazole:

Bird (Bobwhite Quail) LD50 Oral > 2250 mg/kg

Fish (Trout) 96-hour LC50 0.56 ppm

Invertebrate (Water Flea) 48-hour EC50 0.31 ppm

#### 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.

Air Transport - NAFTA

Not regulated.

#### B/L Freight Classification

Fungicides, NOI

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

Air Transport - International

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**

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**

NFPA Hazard Ratings

Health: 1  
Flammability: 1  
Instability: 0

HMIS Hazard Ratings

Health: 1  
Flammability: 1  
Reactivity: 0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 11/1/2006

Revision Date: 6/3/2009

Replaces: 12/11/2007

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.

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