

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: **BANNER 1.1EC FUNGICIDE** Product No.: A6780A  
 EPA Signal Word: Warning  
 Active Ingredient(%): Propiconazole (14.3%) CAS No.: 60207-90-1  
 Chemical Name: 1-[[2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl]methyl]-1H-1,2,4-triazole  
 Chemical Class: Triazole Derivative Fungicide  
 EPA Registration Number(s): 100-641 Section(s) Revised: 14

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Mineral Oil	5 mg/m <sup>3</sup> (mist)	5 mg/m <sup>3</sup> (mist); 10 mg/m <sup>3</sup> (STEL)	5 mg/m <sup>3</sup> (mist); 10 mg/m <sup>3</sup> (STEL) **	No
Petroleum Solvent	Not Established	Not Established	100 mg/m <sup>3</sup> TWA*	No
1,2,4-Trimethylbenzene (<= 24%)	Not Established	25 ppm TWA	25 ppm TWA**	No
Ethyl Benzene (<= 3.6%)	100 ppm TWA	100 ppm TWA	100 ppm TWA**	IARC Group 2B
Xylene (<= 18%)	100 ppm TWA	100 ppm TWA; 150 ppm STEL	100 ppm TWA**	IARC Group 3
Propiconazole (14.3%)	Not Established	Not Established	10 mg/m <sup>3</sup> TWA ***	No

\* recommended by manufacturer

\*\* 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: B, S

**3. HAZARDS IDENTIFICATION**
Symptoms of Acute Exposure

Harmful if swallowed. Causes eye and skin irritation.

Exposure to high vapor levels may cause headache, dizziness, numbness, nausea, incoordination, or other central nervous system effects.

Hazardous Decomposition Products

Can decompose at high temperatures forming toxic gases.

Physical Properties

Appearance: Clear pale yellow liquid

Odor: Aromatic solvent

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

There is no specific antidote if this product is ingested.

Treat symptomatically.

Contains petroleum distillate - vomiting may cause aspiration pneumonia.

### Medical Condition Likely to be Aggravated by Exposure

None known.

## 5. FIRE FIGHTING MEASURES

### Fire and Explosion

Flash Point (Test Method):	105°F (Setaflash)	
Flammable Limits (% in Air):	Lower: 0.8%	Upper: 3.2%
Autoignition Temperature:	Not Available	
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 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 (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.
- Inhalation: A combination particulate/ organic vapor respirator may be necessary until effective engineering controls are installed to comply with occupational exposure limits. Use a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with an HE prefilter.

Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: Clear pale yellow liquid
- Odor: Aromatic solvent
- Melting Point: Not Applicable
- Boiling Point: 297°F
- Specific Gravity/Density: 7.70 lbs./gallon
- pH: 6 - 8 (10% solution in H<sub>2</sub>O)

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

Propiconazole: 0.1 g/l @ 68°F (20°C)

### Vapor Pressure

Propiconazole: 4.2 x 10<sup>(-7)</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: Flame, heat, ignition sources
- Materials to Avoid: Strong oxidizers
- Hazardous Decomposition Products: Can decompose at high temperatures forming toxic gases.

## 11. TOXICOLOGICAL INFORMATION

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

- Ingestion: Slightly Toxic  
Oral (LD50 Rat) : 1,310 mg/kg body weight
- Dermal: Practically Non-Toxic  
Dermal (LD50 Rabbit) : > 5,010 mg/kg body weight
- Inhalation: Practically Non-Toxic  
Inhalation (LC50 Rat) : > 2.6 mg/l air - 4 hours
- Eye Contact: Moderately Irritating (Rabbit)
- Skin Contact: Moderately Irritating (Rabbit)
- Skin Sensitization: Not a Sensitizer (Guinea Pig)

### Reproductive/Developmental Effects

- Propiconazole: None observed.

### Chronic/Subchronic Toxicity Studies

Propiconazole: None observed.

### Carcinogenicity

Propiconazole: Increased incidence of liver tumors at extremely high doses (male mice).

### Other Toxicity Information

None

### Toxicity of Other Components

1,2,4-Trimethylbenzene (<= 24%)

Test results reported in Section 11 for the final product take into account any acute hazards related to the 1,2,4-trimethylbenzene in the formulation.

Ethyl Benzene (<= 3.6%)

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

Mineral Oil

May cause respiratory irritation when inhaled as a mist.

Petroleum Solvent

Respiratory irritation, dizziness, nausea, loss of consciousness.

Xylene (<= 18%)

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

### Target Organs

#### Active Ingredients

Propiconazole: Liver

#### Inert Ingredients

1,2,4-Trimethylbenzene: Not Applicable

Ethyl Benzene: Not Applicable

Mineral Oil: Respiratory tract

Petroleum Solvent: Respiratory tract, CNS, skin

Xylene: Not Applicable

## **12. ECOLOGICAL INFORMATION**

### Summary of Effects

Propiconazole:

Moderately toxic to fish and invertebrates. Practically non-toxic to birds and bees.

### Eco-Acute Toxicity

Propiconazole:

Bees LC50/EC50 > 25 ug/bee

Invertebrates (Water Flea) LC50/EC50 3.2 - 10.2 ppm

Fish (Trout) LC50/EC50 4.3 ppm

Fish (Bluegill) LC50/EC50 5.7 - 6.4 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

Propiconazole:

Fish (Fathead minnow) Early Life Stage MATC > 0.43 and < 0.97 mg/l

Invertebrate (Daphnia Magna) Life Cycle MATC > 0.31 and < 0.69 mg/l

Mallard Reproduction NOEC 300 ppm

Bobwhite Reproduction NOEC 1,000 ppm

### Environmental Fate

Propiconazole:

The information presented here is for the active ingredient, propiconazole.

Low bioaccumulation potential. Not persistent in soil. Stable in water. Low mobility 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: Ignitable D001

Listed Waste: Not Applicable

### 14. TRANSPORT INFORMATION

#### DOT Classification

Ground Transport - NAFTA

Proper Shipping Name: Flammable Liquid, N.O.S. (Xylene)

Hazard Class or Division: Class 3

Identification Number: UN 1993

Packing Group: PG III

Air Transport - NAFTA

Proper Shipping Name: Flammable Liquid, N.O.S. (Xylene)

Hazard Class or Division: Class 3

Identification Number: UN 1993

Packing Group: PG III

Packing Instruction: 309/310 - Max. inner package 10 liters, Max. single package 60 liters passenger, 220 liters cargo

#### B/L Freight Classification

Fungicides, NOI, O/T Poison

#### Comments

Water Transport - International

Proper Shipping Name: Flammable Liquid, N.O.S. (Xylene)

Hazard Class or Division: Class 3

Identification Number: UN 1993

Packing Group: PG III

IMDG EMS #: F-E, S-E

Air Transport - International

Proper Shipping Name: Flammable Liquid, N.O.S. (Xylene)

Hazard Class or Division: Class 3

Identification Number: UN 1993

Packing Group: PG III

Packing Instruction: 309/310 - Max. inner package 10 liters, Max. single package 60 liters passenger, 220 liters cargo

### 15. REGULATORY INFORMATION

#### EPCRA SARA Title III Classification

Section 311/312 Hazard Classes: Acute Health Hazard  
Fire Hazard

Section 313 Toxic Chemicals: Propiconazole (14.3%) (CAS No. 60207-90-1)  
1,2,4-Trimethylbenzene (<= 24%) (CAS No. 95-63-6)  
Ethyl Benzene (<= 3.6%) (CAS No. 100-41-4)  
Xylene (<= 18%) (CAS No. 1330-20-7)

California Proposition 65

Not Applicable

CERCLA/SARA 302 Reportable Quantity (RQ)

Report product spills > 71 gal. (based on xylene [RQ = 100 lbs.] content in the formulation)

RCRA Hazardous Waste Classification (40 CFR 261)

Ignitable D001

TSCA Status

Exempt from TSCA, subject to FIFRA

**16. OTHER INFORMATION**

NFPA Hazard Ratings

Health: 2  
Flammability: 2  
Instability: 0

HMIS Hazard Ratings

Health: 1  
Flammability: 2  
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: 06/04/1992

Revision Date: 03/30/2005

Replaces: 03/14/2005

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