

## TILT®

Date: 5/5/2015  
Replaces: 2/5/2015

### 1. PRODUCT IDENTIFICATION

Product identifier on label: **TILT®**  
Product No.: A6140A  
Use: Fungicide  
Manufacturer: Syngenta Crop Protection, LLC  
Post Office Box 18300  
Greensboro NC 27419  
Manufacturer Phone: 1-800-334-9481

**Emergency Phone: 1-800-888-8372**

### 2. HAZARDS IDENTIFICATION

Classifications: Skin Corrosion/Irritation: Category 2  
Oral: Category 4  
Skin Sensitizer: Category 1B  
Carcinogenicity: Category 2  
Specific Target Organ Toxicity: Repeated Category 2  
Specific Target Organ Toxicity: Drowsiness Category 3  
Eye Damage/Irritation: Category 2A  
Specific Target Organ Toxicity: Respiratory Irritation Category 3  
Aspiration Hazard: Category 1  
Flammable Liquid: Category 3

Signal Word (OSHA): Danger

Hazard Statements: Flammable liquid and vapor  
Harmful if swallowed  
May be fatal if swallowed and enters airways  
Causes skin irritation  
May cause an allergic skin reaction  
Causes serious eye irritation  
May cause respiratory irritation  
May cause drowsiness or dizziness  
Suspected of causing cancer  
May cause damage to organs through prolonged or repeated exposure

Hazard Symbols:



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Precautionary Statements: Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Keep away from heat, sparks, open flames, hot surfaces. No smoking.  
Keep container tightly closed.  
Ground and bond container and receiving equipment.  
Use explosion-proof electrical, ventilating, lighting equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Do not breathe mist, vapors, spray.  
Wash hands and face thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Contaminated work clothing must not be allowed out of the workplace.  
Wear protective gloves, protective clothing, eye protection.  
If swallowed: Call a poison center, doctor or Syngenta if you feel unwell. Rinse mouth.  
If on skin: Wash with plenty of soap and water.  
If on skin or hair: Take off immediately all contaminated clothing. Rinse skin with water.  
If skin irritation or rash occurs: Get medical advice.  
If inhaled: Remove person to fresh air and keep comfortable for breathing.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice.  
If exposed or concerned: Get medical advice/attention.  
Call a poison center, doctor or Syngenta if you feel unwell.  
See Section 4 First Aid Measures.  
Do NOT induce vomiting.  
Take off contaminated clothing and wash it before reuse.  
In case of fire: Use dry chemical, foam or CO<sub>2</sub> for extinction.  
Store in a well-ventilated place. Keep cool.  
Store locked up.  
Dispose of contents and container in accordance with local regulations.

Other Hazard Statements: None

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration
Ethyl Benzene	Ethyl Benzene	100-41-4	<5.0%
Xylene	Xylene	1330-20-7	<15.0%
1,2,4-Trimethylbenzene	1,2,4-Trimethylbenzene	95-63-6	<20.0%

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Petroleum Solvent	Petroleum Solvent	Trade Secret	Trade Secret
Other ingredients	Other ingredients	Trade Secret	>18.2%
1-[[2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl]methyl]-1H-1,2,4-triazole	Propiconazole	60207-90-1	41.8%

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

### 4. FIRST AID MEASURES

Have the product container, label or 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.

Most important symptoms/effects:

- Eye irritation
- Skin irritation
- Allergic skin reaction
- Drowsiness or dizziness
- Respiratory irritation

Indication of immediate medical attention and special treatment needed:

- There is no specific antidote if this product is ingested.
- Treat symptomatically.
- Persons suffering a temporary allergic reaction may respond to treatment with antihistamines or steroid creams and/or systemic steroids.
- Contains petroleum distillate - vomiting may cause aspiration pneumonia.

### 5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

Use dry chemical, foam or CO2 extinguishing media. If water is used to fight fire, dike and collect runoff.

Specific Hazards:

Flammable 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.

Special protective equipment and precautions for firefighters:

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.

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### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:  
Follow exposure controls/personal protection outlined in Section 8.

Methods and materials for containment and cleaning up:

Warning - flammable vapors may be present. Eliminate sources of ignition and ventilate spill area. Use non-sparking clean-up equipment to prevent vapor ignition.

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

Precautions for safe handling:

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.

Conditions for safe storage, including any incompatibilities:

Store locked up.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

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

Occupational Exposure Limits:

Chemical Name	OSHA PEL	ACGIH TLV	Other	Source
Ethyl Benzene	100 ppm TWA	20 ppm TWA; 125 ppm STEL	100 ppm TWA; 125 ppm STEL	Manufacturer
Xylene	100 ppm TWA	100 ppm TWA; 150 ppm STEL	100 ppm TWA	NIOSH
1,2,4-Trimethylbenzene	Not Established	25 ppm TWA	25 ppm TWA	NIOSH
Petroleum Solvent	Not Established	Not Established	100 mg/m <sup>3</sup> TWA	Manufacturer
Other ingredients	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Propiconazole	Not Established	Not Established	5 mg/m <sup>3</sup> TWA	Syngenta

Appropriate engineering controls:

Use effective engineering controls to comply with occupational exposure limits (if applicable).

Individual protection measures:

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.

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**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 barrier laminate or Viton) gloves, coveralls, socks and chemical-resistant footwear.

**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: Amber liquid

Odor: Aromatic solvent

Odor Threshold: Not Available

pH: 4 - 7 (1% solution in H<sub>2</sub>O @ 77°F (25°C))

Melting point/freezing point: Not Available

Initial boiling point and boiling range: 356°F (180°C)

Flash Point (Test Method): 100°F

Flammable Limits (% in Air): Not Available

Flammability: Flammable liquid and vapor

Vapor Pressure: Propiconazole 4.2 x 10<sup>-7</sup> mmHg @ 77°F (25°C)

Vapor Density: Not Available

Relative Density: 1.0306 g/cm<sup>3</sup> ; 8.60 lbs/gal @ 68°F (20°C)

Solubility (ies): Propiconazole 0.1 g/l @ 68°F (20°C)

Partition coefficient: n-octanol/water: Not Available

Autoignition Temperature: > 752°F

Decomposition Temperature: Not Available

Viscosity: Not Available

Other: None

**10. STABILITY AND REACTIVITY**

Reactivity: Not reactive.

Chemical stability: Stable under normal use and storage conditions.

Possibility of hazardous reactions: Will not occur.

Conditions to Avoid: Not Available

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Incompatible materials: None known.

Hazardous Decomposition Products: Not Available

### 11. TOXICOLOGICAL INFORMATION

#### Health effects information

Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure: Eye irritation, Drowsiness or dizziness, Skin irritation, Respiratory irritation

Delayed, immediate and chronic effects of exposure: Eye irritation, Skin irritation, Allergic skin reaction, Drowsiness or dizziness, Respiratory irritation

#### Numerical measures of toxicity (acute toxicity/irritation studies (finished product))

Ingestion:	Oral (LD50 Rat) :	1310 mg/kg body weight
Dermal:	Dermal (LD50 Rabbit) :	> 5000 mg/kg body weight
Inhalation:	Inhalation (LC50 Rat) :	> 2.5 mg/l air - 4 hours
Eye Contact:	Moderately Irritating (Rabbit)	
Skin Contact:	Moderately Irritating (Rabbit)	
Skin Sensitization:	Sensitizing (Guinea Pig)	

#### Reproductive/Developmental Effects

Propiconazole: None observed.

#### Chronic/Subchronic Toxicity Studies

Propiconazole: None observed.

#### Carcinogenicity

Propiconazole: Increased hepatocellular adenomas, combined adenomas/carcinomas, and hepatocellular carcinomas observed in male mice in a chronic oral feeding study. However, animals in the high dose group for this study showed excessive toxicity; furthermore, the high dose exceeded the Maximum Tolerated Dose determined in the 90-day range finding study. No treatment-related tumors were seen in female mice in this mouse chronic feeding study. No tumors were noted in a chronic rat study.

Chemical Name	NTP/IARC/OSHA Carcinogen
Ethyl Benzene	IARC Group 2B
Xylene	IARC Group 3
1,2,4-Trimethylbenzene	No
Petroleum Solvent	No
Other ingredients	No
1-[[2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl]methyl]-1H-1,2,4-triazole	No

#### Other Toxicity Information

None

#### Toxicity of Other Components

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### 1,2,4-Trimethylbenzene

Inhalation of 1,2,4-trimethylbenzene at high concentrations can cause central nervous system depression, respiratory tract irritation, asphyxiation, cardiac stress and coma. Effects of chronic exposure to this solvent can include blood disorders (anemia, leukopenia) and kidney or liver damage.

### Ethyl Benzene

Inhalation of ethyl benzene at high concentrations can cause central nervous system depression, respiratory tract irritation, asphyxiation, cardiac stress and coma.

### Other ingredients

Not Applicable

### Petroleum Solvent

Respiratory irritation, dizziness, nausea, loss of consciousness.

### Xylene

Inhalation of xylene at high concentrations can cause central nervous system depression, respiratory tract irritation, asphyxiation, cardiac stress and coma.

## Target Organs

### Active Ingredients

Propiconazole: Liver

### Inert Ingredients

1,2,4-Trimethylbenzene: CNS, liver, kidney, blood, respiratory tract, skin, eye

Ethyl Benzene: CNS, respiratory tract, skin

Other ingredients: Not Applicable

Petroleum Solvent: Respiratory tract, CNS, skin

Xylene: CNS, respiratory tract, skin

## 12. ECOLOGICAL INFORMATION

### Eco-Acute Toxicity

#### Propiconazole:

Fish (Rainbow Trout) 96-hour LC50 0.83 ppm

Invertebrate (Water Flea) 48-hour EC50 3.2 ppm

Green Algae 9-day EC50 0.72 ppm

Bird (Mallard Duck) 14-day LD50 2510 mg/kg

### 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

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**14. TRANSPORT INFORMATION**

## DOT Classification

Ground Transport - NAFTA  
Proper Shipping Name: Flammable Liquid, N.O.S. (Xylene/Ethylbenzene)  
Hazard Class: Class 3  
Identification Number: UN 1993  
Packing Group: PG III  
Note: RQ = 1000 gal. for Xylene

## Comments

Water Transport - International  
Proper Shipping Name: Flammable Liquid, N.O.S. (Xylene/Ethylbenzene), Marine Pollutant, (Propiconazole)  
Hazard Class: Class 3  
Identification Number: UN 1993  
Packing Group: PG III

## Air Transport

Proper Shipping Name: Flammable Liquid, N.O.S. (Xylene/Ethylbenzene)  
Hazard Class: Class 3  
Identification Number: UN 1993  
Packing Group: PG III

**15. REGULATORY INFORMATION**

## Pesticide Registration:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Warning: Causes substantial but temporary eye injury. Do not get in eyes, on skin, or on clothing. Harmful if swallowed, inhaled, or absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid breathing spray mist. This product may cause skin sensitization reactions in certain individuals.

## EPA Registration Number(s):

100-617

## EPCRA SARA Title III Classification:

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

Section 313 Toxic Chemicals: Propiconazole 41.8% (CAS No. 60207-90-1)  
Ethyl Benzene <5.0% (CAS No. 100-41-4)  
Xylene <15.0% (CAS No. 1330-20-7)  
1,2,4-Trimethylbenzene <20.0% (CAS No. 95-63-6)

## California Proposition 65:

This product contains trace amounts of chemical(s) known to the State of California to cause cancer as unintended impurities resulting from other entities manufacturing or processing operations which Syngenta cannot control.

## CERCLA/SARA 304 Reportable Quantity (RQ):

Report product spills > 1,000 gal. (based on p-xylene [RQ = 100 lbs.] content in the formulation)

## RCRA Hazardous Waste Classification (40 CFR 261):



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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: 2  
 Flammability: 2  
 Reactivity: 0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme
*	Chronic

Syngenta Hazard Category: C,S

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 11/15/1985

Revision Date: 5/5/2015

Replaces: 2/5/2015

Section(s) Revised: 9

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.