

APROVIA TOP Fungicide

Date: 9/2/2015
 Replaces: 9/1/2015

1. PRODUCT IDENTIFICATION

Product identifier on label: **APROVIA TOP Fungicide**
 Product No.: A19334A
 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: Oral: Category 4
 Inhalation: Category 3
 Specific Target Organ Toxicity: Respiratory Irritation Category 3
 Eye Damage/Irritation: Category 1

Signal Word (OSHA): Danger

Hazard Statements: Harmful if swallowed
 Causes serious eye damage
 Toxic if inhaled
 May cause respiratory irritation

Hazard Symbols:



Precautionary Statements: Wear eye protection.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 Immediately call a poison center, doctor or Syngenta.
 Avoid breathing 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.
 If swallowed: Call a poison center, doctor or Syngenta if you feel unwell. Rinse mouth.
 If inhaled: Remove person to fresh air and keep comfortable for breathing.
 Call a poison center, doctor or Syngenta if you feel unwell.
 See Section 4 First Aid Measures.

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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
Acetophenone	Acetophenone	98-86-2	Trade Secret
Other ingredients	Other ingredients	Trade Secret	<81.25%
1H-1,2,4-Triazole, 1-[[2-[2-chloro-4-(4-chlorophenoxy)phenyl]-4-methyl-1,3-dioxolan-2-yl]methyl]-	Difenoconazole	119446-68-3	11.25%
Benzovindiflupyr	Solatenol	1072957-71-1	7.50%

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
- Respiratory irritation

Indication of immediate medical attention and special treatment needed:

- There is no specific antidote if this product is ingested.
- Treat symptomatically.

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:

None known.

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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.

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:

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

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
Acetophenone	Not Established	10 ppm TWA	Not Established	Not Applicable
Other ingredients	Not Established	Not Established	Not Established	Not Applicable
Difenoconazole	Not Established	Not Established	5 mg/m ³ TWA	Manufacturer
Solatenol	Not Established	Not Established	1 mg/m ³ 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.

Eye Contact:

Where eye contact is likely, use splash-proof chemical goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

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Skin Contact:

Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear.

Inhalation:

A combination particulate/organic vapor respirator should be used until effective engineering controls are installed to comply with occupational exposure limits, or until exposure limits are established. Use a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P or HE filter.

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: Transparent light brown liquid

Odor: Aromatic

Odor Threshold: Not Applicable

pH: 4.4 %

Melting point/freezing point: Not Available

Initial boiling point and boiling range: Not Applicable

Flash Point (Test Method): 180°F

Flammable Limits (% in Air): Not Available

Flammability: Not Available

Vapor Pressure: Difenoconazole 2.5 x 10⁻¹⁰ mmHg @ 77°F (25°C)
Solatenol Not Available

Vapor Density: Not Available

Relative Density: 1.039 g/cm³

Solubility (ies): Difenoconazole 15 mg/l @ 77°F (25°C)
Solatenol Not Available

Partition coefficient: n-octanol/water: Not Available

Autoignition Temperature: 743°F

Decomposition Temperature: Not Available

Viscosity: 22mPa @ 68°F (20°C)

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: None known.

Incompatible materials: None known.

Hazardous Decomposition Products: Not Available

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11. TOXICOLOGICAL INFORMATION

Health effects information

Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure: Eye irritation, Respiratory irritation

Delayed, immediate and chronic effects of exposure: Eye irritation, Respiratory system effects

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

Ingestion:	Oral (LD50 Rat) :	1750 mg/kg body weight
Dermal:	Dermal (LD50 Rat) :	> 5000 mg/kg body weight
Inhalation:	Inhalation (LC50 Rat) :	0.52-2.53 mg/l
Eye Contact:	Severely Irritating (Rabbit)	
Skin Contact:	Slightly Irritating (Rabbit)	
Skin Sensitization:	Not a Sensitizer (Guinea Pig)	

Reproductive/Developmental Effects

Difenoconazole: None observed.

Solatenol: Did not show reproductive toxicity effects in animal experiments.

Chronic/Subchronic Toxicity Studies

Difenoconazole: Kidney and liver effects at high doses (>5000 ppm; rats); Eye effects in dogs at high dose levels.

Solatenol: The substance or mixture is not classified as specific target organ toxicant, single exposure.

Carcinogenicity

Difenoconazole: Did not show carcinogenic effects in animal experiments.

Solatenol: Animal testing did not show any mutagenic effects.

Studies in rodents have shown no treatment-related tumor findings of relevance to human health.

Chemical Name	NTP/IARC/OSHA Carcinogen
Acetophenone	No
Other ingredients	No
1H-1,2,4-Triazole, 1-[[2-[2-chloro-4-(4-chlorophenoxy)phenyl]-4-methyl-1,3-dioxolan-2-yl]methyl]-	No
Benzovindiflupyr	No

Other Toxicity Information

Not Available

Toxicity of Other Components

Acetophenone

Exposure causes severe eye and skin irritation. Prolonged contact may cause defatting of the skin and dermatitis or burns. Inhalation of high concentrations may cause central nervous system effects characterized by headache, dizziness, unconsciousness and coma. May cause irritation of the respiratory tract with burning, pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema. Ingestion may

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cause gastrointestinal irritation with nausea, vomiting and diarrhea.

Other ingredients
 Not Established

Target Organs

Active Ingredients

Difenoconazole: Brain, liver, kidney, gastrointestinal tract
 Solatenol: Not Applicable

Inert Ingredients

Acetophenone: CNS, skin, eye
 Other ingredients: Not Established

12. ECOLOGICAL INFORMATION

Eco-Acute Toxicity

Difenoconazole:
 Fish (Rainbow Trout) 96-hour LC50 1.1 mg/l
 Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 0.77 mg/l
 Green Algae 72-hour EbC50 0.032 mg/

Solatenol:
 Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 0.085 mg/l
 Fish (Carp) 96-hour LC50 0.0035 mg/l

Environmental Fate

Difenoconazole:
 The information presented here is for the active ingredient, difenoconazole.
 Stable in soil and water. Low to moderate mobility in soil. Sinks in water (after 24 h).

Solatenol:
 The following information is for the active ingredient Benzovindiflupyr.
 Biodegradability: Not biodegradable.
 Does not bioaccumulate.
 Slightly mobile in soils.
 Results of PBT and vPvB assessment: This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

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

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14. TRANSPORT INFORMATION

DOT Classification

Ground Transport - NAFTA
Not regulated

Comments

Water Transport - International

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Difenoconazole, Benzovindiflupyr), Marine Pollutant

Hazard Class: Class 9

Identification Number: UN 3082

Packing Group: PG III

Air Transport

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Difenoconazole, Benzovindiflupyr)

Hazard Class: Class 9

Identification Number: UN 3082

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:

Danger: Corrosive to the eye. Causes irreversible eye damage. Harmful if swallowed or inhaled. Do not get in eyes or on clothing. Avoid breathing spray mist. Avoid contact with skin, eyes, or clothing.

EPA Registration Number(s):

100-1476

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: Acetophenone Trade Secret (CAS No. 98-86-2)

CERCLA/SARA 304 Reportable Quantity (RQ):

Not Applicable

RCRA Hazardous Waste Classification (40 CFR 261):

Not Applicable

TSCA Status:

TSCA R & D Exempt

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16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 2
Flammability: 1
Instability: 0

HMIS Hazard Ratings

Health: 3
Flammability: 1
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: 2/10/2015

Revision Date: 9/2/2015

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Section(s) Revised: 9

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