

MIRAVIS TOP

Date: 6/1/2018
Replaces: 4/4/2018

1. PRODUCT IDENTIFICATION

Product identifier on label: **MIRAVIS TOP**
 Product No.: A20259E
 Use: Experimental Formulation
 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: Inhalation: Category 4
 Signal Word (OSHA): Warning
 Hazard Statements: Harmful if inhaled

Hazard Symbols:



Precautionary Statements: Avoid breathing mist, vapors, spray.
 Use only outdoors or in a well-ventilated area.
 If inhaled: Remove person to fresh air and keep comfortable for breathing.
 Call a poison center, doctor or Syngenta if you feel unwell.

Other Hazard Statements: None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration
1,2-Propanediol	Propylene Glycol	57-55-6	<10%
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	11.5%
1H-Pyrazole-4-carboxamide, 3-(difluoromethyl)-N-methoxy-1-methyl-N-[1-methyl-2-(2,4,6-trichlorophenyl)ethyl]-	Pydiflumetofen	1228284-64-7	6.9%

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

MIRAVIS TOP

Date: 6/1/2018
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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 supplier (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:

Not Available

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:

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.

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 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.

MIRAVIS TOP

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7. HANDLING AND STORAGEPrecautions for safe handling:

Store the material in a cool, 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:

Not Applicable

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
Propylene Glycol	Not Established	Not Established	10 mg/m ³ TWA	AIHA
Difenoconazole	Not Established	Not Established	5 mg/m ³ TWA	Manufacturer
Pydiflumetofen	Not Established	Not Established	5 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. Always wash thoroughly after handling.

Eye Contact:

Where eye contact is likely, use chemical dust-proof 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.

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.

MIRAVIS TOP

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White liquid
Odor: Weak
Odor Threshold: Not Available
pH: > 6.00 - 9.00
Melting point/freezing point: Not Available
Initial boiling point and boiling range: Not Available
Flash Point (Test Method): Not Available
Flammable Limits (% in Air): Not Available
Flammability: Not Available
Vapor Pressure: Difenoconazole 2.5 x 10⁻¹⁰ mmHg @ 77°F (25°C)
Pydiflumetofen Not Available
Vapor Density: Not Available
Relative Density: 1.09 g/cm³ @ 77°F (25°C)
Solubility (ies): Difenoconazole 15 mg/l @ 77°F (25°C)
Pydiflumetofen Not Available
Partition coefficient: n-octanol/water: Not Available
Autoignition Temperature: 650 Not Detected
Decomposition Temperature: Not Available
Viscosity: 105mPa @ 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

11. TOXICOLOGICAL INFORMATIONHealth effects information

Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure: Not Applicable

Delayed, immediate and chronic effects of exposure: Not Applicable

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

Ingestion: Oral (LD50 Female Rat) : 5,000 mg/kg body weight

MIRAVIS TOP

Date: 6/1/2018
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Dermal: Dermal (LD50 Rat) : > 5,000 mg/kg body weight
 Inhalation: Inhalation (LC50 Rat) : > 4.43 mg/l - 4 hours (calculated)
 Eye Contact: Practically Non-Irritating (Rabbit)
 Skin Contact: Non-Irritating (Rabbit)
 Skin Sensitization: Not a Sensitizer (Local Lymph Node Assay Mouse)

Reproductive/Developmental Effects

Difenoconazole: None observed.

Pydiflumetofen: No evidence of adverse effects on sexual function and fertility, or on development, based on 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.

Pydiflumetofen: Not Available

Carcinogenicity

Difenoconazole: Did not show carcinogenic effects in animal experiments.

Pydiflumetofen: Liver tumors noted in mice that are not relevant to humans.

Chemical Name	NTP/IARC/OSHA Carcinogen
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1,2-Propanediol	No
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1H-1,2,4-Triazole, 1-[[2-[2-chloro-4-(4-chlorophenoxy)phenyl]-4-methyl-1,3-dioxolan-2-yl]methyl]-	No
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1H-Pyrazole-4-carboxamide, 3-(difluoromethyl)-N-methoxy-1-methyl-N-[1-methyl-2-(2,4,6-trichlorophenyl)ethyl]-	No
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Other Toxicity Information

Not Available

Toxicity of Other Components

Propylene Glycol

Reported to cause central nervous system depression (anesthesia, dizziness, confusion), headache and nausea. Also, eye irritation may occur with lacrimation but no residual discomfort or injury. Prolonged contact to skin may cause mild to moderate irritation and possible allergic reactions. Chronic dietary exposure caused kidney and liver injury in experimental animals.

Target Organs

Active Ingredients

Difenoconazole: Brain, liver, kidney, gastrointestinal tract

Pydiflumetofen: Not Available

Inert Ingredients

Propylene Glycol: CNS, kidney, liver

MIRAVIS TOP

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12. ECOLOGICAL INFORMATION

Eco-Acute Toxicity

Difenoconazole:

Fish (Rainbow Trout) 96-hour LC50 1.06 ppm

Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 0.77 ppm

Bird (Mallard Duck) 21-day LD50 > 2150 mg/kg

Pydiflumetofen:

Green Algae 96-hour ErC50 >5.9 mg/l

Fish (Rainbow Trout) 96-hour LC50 .18 mg/l

Environmental Fate

Difenoconazole:

The information presented here is for the active ingredient, CGA169374.

Stable in soil and water. Low to moderate mobility in soil. Sinks in water (after 24 h).

Pydiflumetofen:

Not Available

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

Comments

Water Transport - International

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

Hazard Class: Class 9

Identification Number: UN 3082

Packing Group: PG III

MIRAVIS TOP

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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:

Caution: Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

EPA Registration Number(s):

100-1602

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: See Section 2 Hazards

Section 313 Toxic Chemicals: None

CERCLA/SARA 304 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
*	Chronic

Syngenta Hazard Category: A

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 2/23/2018

Revision Date: 6/1/2018

Replaces: 4/4/2018

Section(s) Revised: 3,15

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