Safety Data Sheet

TRIVAPRO FUNGICIDE

Date: 2/17/2017
Replaces: 5/24/2016

1. PRODUCT IDENTIFICATION

Product identifier on label: **TRIVAPRO FUNGICIDE**
Product No.: A21664A
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
Eye Damage/Irritation: Category 2A
Signal Word (OSHA): Warning
Hazard Statements: Harmful if swallowed
Causes serious eye irritation

Hazard Symbols:



Precautionary Statements: Do not eat, drink or smoke when using this product.
If swallowed: Call a poison center, doctor or Syngenta if you feel unwell. Rinse mouth.
Dispose of contents and container in accordance with local regulations.
Wash hands and face thoroughly after handling.
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.

Other Hazard Statements: None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration
1,2-Propanediol	Propylene Glycol	57-55-6	<5.0%
1-Octanol	1-Octanol	111-87-5	<15.0%

Other ingredients	Other ingredients	Trade Secret	54.7%
Methyl (E)-2-{2-[6-(2-cyanophenoxy)pyrimidin-4-yloxy]phenyl}-3-methoxyacrylate	Azoxystrobin	131860-33-8	10.5%
1-[[2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl]methyl]-1H-1,2,4-triazole	Propiconazole	60207-90-1	11.9%
N-[9-(dichloromethylene)-1,2,3,4-tetrahydro-1,4-methanonaphthalen-5-yl]-3-(difluoromethyl)-1-methyl-1H-pyrazole-4-carboxamide	Solatenol	1072957-71-1	2.9%

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

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.

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:

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/m³ TWA	AIHA
1-Octanol	Not Established	Not Established	50 ppm TWA	AIHA
Other ingredients	Not Established	Not Established	Not Established	Not Applicable
Azoxystrobin	Not Established	Not Established	4 mg/m³ TWA	Syngenta
Propiconazole	Not Established	Not Established	5 mg/m³ TWA	Syngenta
Solatenol	Not Established	Not Established	1 mg/m³ 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.

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: Pale yellow liquid

Odor: Soapy

Odor Threshold: Not Available

pH: 6.5

Melting point/freezing point: Not Available

Initial boiling point and boiling range: Not Available

Flash Point (Test Method): 103°C

Flammable Limits (% in Air): NotAvailable

Flammability: Not Available

Vapor Pressure: Azoxystrobin 8.25 x 10(-13) mmHg @ 68°F (20°C)
Propiconazole 4.2 x 10(-7) mmHg @ 77°F (25°C)
Solatenol Not Available

Vapor Density: Not Available

Relative Density: 1.048 g/cm³ @ 68°F (20°C)

Solubility (ies): Azoxystrobin 6 mg/l in water @ 68°F (20°C)
Propiconazole 0.1 g/l @ 68°F (20°C)
Solatenol Not Available

Partition coefficient: n-octanol/water: Not Available

Autoignition Temperature: 815°F

Decomposition Temperature: Not Available

Viscosity: 657mPa @ 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: None known.

11. TOXICOLOGICAL INFORMATION

Health effects information

Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure: Eye irritation

Delayed, immediate and chronic effects of exposure: Eye irritation

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

Ingestion:	Oral (LD50 Rat) :	550 mg/kg body weight
Dermal:	Dermal (LD50 Rat) :	> 2,000 mg/kg body weight
Inhalation:	Inhalation (LC50 Rat) :	> 2.59 mg/l
Eye Contact:	Severe Irritant	
Skin Contact:	Slightly Irritating	
Skin Sensitization:	Not a skin sensitizer.	

Reproductive/Developmental Effects

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

Propiconazole: None observed.

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

Chronic/Subchronic Toxicity Studies

Azoxystrobin : No adverse effect has been observed in chronic toxicity tests.

Propiconazole: None observed.

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

Carcinogenicity

Azoxystrobin : Did not show carcinogenic effects in animal experiments.

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.

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
1,2-Propanediol	No
1-Octanol	No
Other ingredients	No
Methyl (E)-2-{2-[6-(2-cyanophenoxy)pyrimidin-4-yloxy]phenyl}-3-methoxyacrylate	No

1-[[2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl]methyl]-1H-1,2,4-triazole	No
N-[9-(dichloromethylene)-1,2,3,4-tetrahydro-1,4-methanonaphthalen-5-yl]-3-(difluoromethyl)-1-methyl-1H-pyrazole-4-carboxamide	No

Other Toxicity Information

Not Available

Toxicity of Other Components

1-Octanol

Exposure may cause eye, skin and respiratory tract irritation. Prolonged skin contact may cause dermatitis and defatting.

Other ingredients

Not Established

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

Azoxystrobin :	Liver
Propiconazole:	Liver
Solatenol:	Not Applicable

Inert Ingredients

1-Octanol:	Eye, skin, respiratory tract
Other ingredients:	Not Established
Propylene Glycol:	CNS, kidney, liver

12. ECOLOGICAL INFORMATION

Eco-Acute Toxicity

Azoxystrobin :

Fish (Rainbow Trout) 96-hour LC50 470 ppb

Green Algae 5-day EC50 106 ppb

Invertebrate (Water Flea) 48-hour EC50 259 ppb

Bird (Mallard Duck) 14-day LD50 > 250 mg/kg

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

Solatenol:

Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 0.085 mg/l

Fish (Carp) 96-hour LC50 0.0035 mg/l

Environmental Fate

Azoxystrobin :

The information presented here is for the active ingredient, azoxystrobin.
Low bioaccumulation potential. Not persistent in soil. Stable in water. Moderate mobility in soil. Sinks in water (after 24 h).

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).

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

14. TRANSPORT INFORMATION

DOT Classification

Ground Transport - NAFTA
Not regulated

Comments

Water Transport - International
Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Benzovindiflupyr, Azoxystrobin), 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. (Benzovindiflupyr, Azoxystrobin)
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:

Warning: Causes substantial but temporary eye injury. Harmful if swallowed. Harmful if absorbed through skin. Avoid contact with skin. Wear protective eyewear. Do not get in eyes or on clothing. 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):
100-1613

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: Propiconazole 11.9% (CAS No. 60207-90-1)

CERCLA/SARA 304 Reportable Quantity (RQ):
Not Applicable

RCRA Hazardous Waste Classification (40 CFR 261):
Not Applicable

TSCA Status:
TSCA R & D Exempt

16. OTHER INFORMATION

NFPA Hazard Ratings		HMIS Hazard Ratings	
Health:	2	Health:	2
Flammability:	1	Flammability:	1
Instability:	0	Physical Hazard:	0

Syngenta Hazard Category: B,S

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

For non-emergency questions about this product call:

1-800-334-9481

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Section(s) Revised: 15

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