

MIRAVIS NEO

Date: 5/25/2018
Replaces: 5/23/2018

1. PRODUCT IDENTIFICATION

Product identifier on label: **MIRAVIS NEO**
Product No.: A21461B
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
Reproductive Toxicity: Category 2
Eye Damage/Irritation: Category 2A

Signal Word (OSHA): Warning

Hazard Statements: Harmful if swallowed
Causes serious eye irritation
Suspected of damaging fertility or the unborn child

Hazard Symbols:



Precautionary Statements: Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not eat, drink or smoke when using this product.
Wear protective gloves, protective clothing, eye protection.
Wear eye protection.
If swallowed: Call a poison center, doctor or Syngenta if you feel unwell. Rinse mouth.
If exposed or concerned: Get medical advice/attention.
Store locked up.
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.
Dispose of contents and container in accordance with local regulations.

MIRAVIS NEO

Date: 5/25/2018
Replaces: 5/23/2018

Other Hazard Statements: None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration
1-[[2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl]methyl]-1H-1,2,4-triazole	Propiconazole	60207-90-1	11.6%
Methyl (E)-2-[2-[6-(2-cyanophenoxy)pyrimidin-4-yloxy]phenyl]-3-methoxyacrylate	Azoxystrobin	131860-33-8	9.3%
1H-Pyrazole-4-carboxamide, 3-(difluoromethyl)-N-methoxy-1-methyl-N-[1-methyl-2-(2,4,6-trichlorophenyl)ethyl]-	Pydiflumetofen	1228284-64-7	7%

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. Have the person sip a glass of water if able to swallow. 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
- Allergic skin reaction

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.

MIRAVIS NEO

Date: 5/25/2018

Replaces: 5/23/2018

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
Propiconazole	Not Established	Not Established	5 mg/m ³ TWA	Syngenta
Azoxystrobin	Not Established	Not Established	2 mg/m ³ TWA	Syngenta
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. 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.

MIRAVIS NEO

Date: 5/25/2018

Replaces: 5/23/2018

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: Beige Liquid

Odor: Aromatic

Odor Threshold: Not Applicable

pH: 5-8 1% w/v @ 68° F (20° C)

Melting point/freezing point: Not Available

Initial boiling point and boiling range: Not Applicable

Flash Point (Test Method): >101°C (Pensky-Martens CC)

Flammable Limits (% in Air): Not Available

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)

Pydiflumetofen Not Available

Vapor Density: Not Available

Relative Density: 1.07 g/ml

Solubility (ies): Azoxystrobin 6 mg/l in water @ 68°F (20°C)

Propiconazole 0.1 g/l @ 68°F (20°C)

Pydiflumetofen Not Available

Partition coefficient: n-octanol/water: Not Available

Autoignition Temperature: 440°C

Decomposition Temperature: Not Available

Viscosity: 797mPa @ 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

MIRAVIS NEO

Date: 5/25/2018

Replaces: 5/23/2018

11. TOXICOLOGICAL INFORMATIONHealth effects information

Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure: Eye irritation, Rash, redness or itching

Delayed, immediate and chronic effects of exposure: Developmental toxicity, Eye irritation, Allergic skin reaction

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

Ingestion:	Oral (LD50 Rat) :	550 mg/kg body weight
Dermal:	Dermal (LD50 Rat) :	> 5000 mg/l - 4 hours (calculated)
Inhalation:	Inhalation (LC50 Rat) :	> 2.08 mg/l air - 4 hours
Eye Contact:	Moderate Irritant	
Skin Contact:	Slightly Irritating	
Skin Sensitization:	Not a skin sensitizer.	

Reproductive/Developmental Effects

Azoxystrobin: Shows weak chromosomal damage in mammalian cells at cytotoxic levels. Negative in whole animal assays for chromosomal and DNA damage at high dosages (> or = 2000 mg/kg). In rabbits, no effect was observed up to the highest dose level (500 mg/kg/day). In rats, developmental effects were seen only at maternally toxic doses (100 mg/kg/day).

Propiconazole: Some evidence of adverse effects on development, based on animal experiments.

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

Chronic/Subchronic Toxicity Studies

Azoxystrobin: In a rat 90-day feeding study, liver toxicity was observed at 2000 ppm. This was manifest as gross distension of the bile duct, increased numbers of lining cells and inflammation of the duct. No toxicologically significant effects were seen in repeat dose dog studies.

Data reviews do not indicate any potential for endocrine disruption.

There is no evidence of neurotoxicity in any of the studies conducted with azoxystrobin.

Propiconazole: None observed.

Pydiflumetofen: Not Available

Carcinogenicity

Azoxystrobin: No carcinogenic effects observed in rats or mice at doses up to the maximum tolerated dose.

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.

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

Chemical Name	NTP/IARC/OSHA Carcinogen
---------------	--------------------------

1-[[2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl]methyl]-1H-1,2,4-triazole	No
---	----

MIRAVIS NEO

Date: 5/25/2018

Replaces: 5/23/2018

Methyl (E)-2-{2-[6-(2-cyanophenoxy)pyrimidin-4-yloxy]phenyl}-3-methoxyacrylate No

1H-Pyrazole-4-carboxamide, 3-(difluoromethyl)-N-methoxy-1-methyl-N-[1-methyl-2-(2,4,6-trichlorophenyl)ethyl]- No

Other Toxicity Information

Not Available

Toxicity of Other ComponentsTarget OrgansActive Ingredients

Azoxystrobin: Liver

Propiconazole: Liver

Pydiflumetofen: Not Available

Inert Ingredients

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

Azoxystrobin:

Green Algae 5-day EC50 106 ppb

Invertebrate (Water Flea) 48-hour EC50 259 ppb

Fish (Rainbow Trout) 96-hour LC50 470 ppb

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

Pydiflumetofen:

Green Algae 96-hour ErC50 >5.9 mg/l

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

Environmental Fate

Azoxystrobin:

The information presented here is for the active ingredient, ICI5504.

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).

Pydiflumetofen:

Not Available

MIRAVIS NEO

Date: 5/25/2018

Replaces: 5/23/2018

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, N.O.S. (Propiconazole, Azoxystrobin), Marine Pollutant

Hazard Class or Division: Class 9

Identification Number: UN 3082

Packing Group: PG III

Air Transport - International

Proper Shipping Name: Environmentally Hazardous Substance, N.O.S.

(Propiconazole, Azoxystrobin)

Hazard Class or Division: 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. Do not get in eyes or on clothing. Harmful if swallowed. Wear appropriate protective eyewear such as goggles, face shield, or safety glasses. 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):

100-1605

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: See Section 2 Hazards

Section 313 Toxic Chemicals: Propiconazole 11.6% (CAS No. 60207-90-1)

CERCLA/SARA 304 Reportable Quantity (RQ):

Not Applicable

MIRAVIS NEO

Date: 5/25/2018

Replaces: 5/23/2018

RCRA Hazardous Waste Classification (40 CFR 261):

Not Applicable

TSCA Status:

Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 2
Flammability: 1
Instability: 0

HMIS Hazard Ratings

Health: 2
Flammability: 1
Reactivity: 0

Syngenta Hazard Category: C,S

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

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 2/23/2018

Revision Date: 5/25/2018

Replaces: 5/23/2018

Section(s) Revised: 15

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.