

RENOWN FUNGICIDE

Date: 8/28/2018
Replaces: 10/5/2016

1. PRODUCT IDENTIFICATION

Product identifier on label: **RENOWN FUNGICIDE**
Product No.: A15935A
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: Carcinogenicity: Category 2
Specific Target Organ Toxicity: Repeated Category 2
Eye Damage/Irritation: Category 2A
Specific Target Organ Toxicity: Respiratory Irritation Category 3
Inhalation: Category 2

Signal Word (OSHA): Warning

Hazard Statements: Causes serious eye irritation
Fatal if inhaled
May cause respiratory irritation
Suspected of causing cancer
May cause damage to organs through prolonged or repeated exposure

Hazard Symbols:



Precautionary Statements: Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe mist, vapors, spray.
Wash hands and face thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves, protective clothing, eye protection.
In case of inadequate ventilation wear respiratory protection. See Section 8 Exposure Control/Personal Protection.
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

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present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice.
Immediately call a poison center, doctor or Syngenta.
Get medical advice if you feel unwell.
Specific treatment is urgent (see Section 4 First Aid Measures).
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 |
|--|-------------------|--------------|---------------|
| 1,2-Propanediol | Propylene Glycol | 57-55-6 | Trade Secret |
| Silica, amorphous | Silica, amorphous | 112926-00-8 | Trade Secret |
| Other ingredients | Other ingredients | Trade Secret | <52.0% |
| Methyl (E)-2-{2-[6-(2-cyanophenoxy)pyrimidin-4-yloxy]phenyl}-3-methoxyacrylate | Azoxystrobin | 131860-33-8 | 3.0% |
| Tetrachloroisophthalonitrile | Chlorothalonil | 1897-45-6 | 45.0% |

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.

Persons suffering a temporary allergic reaction may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

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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 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 |
|-------------------|--|-----------------|---------------------------|----------------|
| Propylene Glycol | Not Established | Not Established | 10 mg/m ³ TWA | AIHA |
| Silica, amorphous | 80 mg/m ³ /% SiO ₂ TWA | Not Established | 6 mg/m ³ TWA | NIOSH |
| Other ingredients | Not Established | Not Established | Not Established | Not Applicable |
| Azoxystrobin | Not Established | Not Established | 4 mg/m ³ TWA | Syngenta |
| Chlorothalonil | Not Established | Not Established | 0.1 mg/m ³ TWA | Syngenta |

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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 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 gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride [PVC] or Viton), coveralls, socks and chemical-resistant footwear.

Inhalation:

A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

In case of emergency spills, use a NIOSH certified respirator with any N, R, P or HE filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Light grey liquid

Odor: Musty

Odor Threshold: Not Available

pH: 6.0 - 8.0 (as is @ 68 - 77°F (20 - 25°C))

Melting point/freezing point: Not Applicable

Initial boiling point and boiling range: Not Available

Flash Point (Test Method): > 212°F (Pensky-Martens CC)

Flammable Limits (% in Air): Not Available

Flammability: Not Applicable

Vapor Pressure: Azoxystrobin 8.25 x 10⁻¹³ mmHg @ 68°F (20°C)
 Chlorothalonil 0.00000057mmHg @ 77°F (25°C)

Vapor Density: Not Available

Relative Density: 1.28 - 1.32 g/ml ; 10.85 lbs/gal @ 68 - 77°F

Solubility (ies): Azoxystrobin 6 mg/l in water @ 68°F (20°C)
 Chlorothalonil 0.81 mg/l @ 77°F (25°C)

Partition coefficient: n-octanol/water: Not Available

Autoignition Temperature: > 1202°F

Decomposition Temperature: Not Available

Viscosity: Not Available

Other: None

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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, Respiratory irritation

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

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

| | | |
|---------------------|------------------------------|---------------------------------|
| Ingestion: | Oral (LD50 Female Rat) : | 3129 mg/kg body weight |
| Dermal: | Dermal (LD50 Rat) : | > 5000 mg/kg body weight |
| Inhalation: | Inhalation (LC50 Rat) : | 0.052 - 0.27 mg/l air - 4 hours |
| Eye Contact: | Severely Irritating (Rabbit) | |
| Skin Contact: | Slightly Irritating (Rabbit) | |
| Skin Sensitization: | Not Available | |

Reproductive/Developmental Effects

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

Chlorothalonil: Did not show reproductive toxicity effects in animal experiments. Did not show teratogenic effects in animal experiments.

Chronic/Subchronic Toxicity Studies

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

Chlorothalonil: In dogs, 1 year administration caused a significant decrease in body weight gain and increases in absolute liver and kidney weights.

Neurotoxicity: No evidence in regulatory studies.

Carcinogenicity

Azoxystrobin : Did not show carcinogenic effects in animal experiments.

Chlorothalonil: Chlorothalonil causes kidney tumors in rats and mice via a nongentoxic mode of action secondary to target organ toxicity.

Did not show mutagenic effects in animal experiments.

IARC identifies chlorothalonil as a 2B carcinogen (possibly carcinogenic to humans).

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| Chemical Name | NTP/IARC/OSHA Carcinogen |
|--|--------------------------|
| 1,2-Propanediol | No |
| Silica, amorphous | IARC Group 3 |
| Other ingredients | No |
| Methyl (E)-2-{2-[6-(2-cyanophenoxy)pyrimidin-4-yloxy]phenyl}-3-methoxyacrylate | No |
| Tetrachloroisophthalonitrile | IARC Group 2B |

Other Toxicity Information

None

Toxicity of Other Components

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.

Silica, amorphous

Dusts in high concentrations may cause skin, eye and respiratory tract irritation.

Target Organs

Active Ingredients

Azoxystrobin : Liver
 Chlorothalonil: Lung, kidney

Inert Ingredients

Other ingredients: Not Established
 Propylene Glycol: CNS, kidney, liver
 Silica, amorphous: Skin, eye, respiratory tract

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

Chlorothalonil:

Green Algae 5-day EC50 190 ppb
 Bird (Mallard Duck) LD50 Oral > 4640 mg/kg
 Invertebrate (Water Flea) 48-hour EC50 70 ppb
 Fish (Rainbow Trout) 96-hour LC50 47 ppb

Environmental Fate

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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).

Chlorothalonil:

The information presented here is for the active ingredient, chlorothalonil.
Low bioaccumulation potential. Not persistent in soil or 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: Not Applicable

Listed Waste: Not Applicable

14. TRANSPORT INFORMATION

DOT Classification

Ground Transport - NAFTA

Non-Bulk (< 119 gal): Not regulated

Bulk (>= 119 gal):

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorothalonil, Azoxystrobin)

Hazard Class: Class 9

Identification Number: UN 3082

Packing Group: PG III

Comments

Water Transport - International

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorothalonil, 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. (Chlorothalonil, 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: May be fatal if inhaled. Do not breathe vapor or spray mist. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eye wear (goggles, face shield, or safety glasses). Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. 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.

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EPA Registration Number(s):
 100-1315

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: Chronic Health Hazard
 See Section 2 Hazards

Section 313 Toxic Chemicals: Chlorothalonil 45.0% (CAS No. 1897-45-6)

California Proposition 65:

ATTENTION: This product can expose you to chemicals including chlorothalonil, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

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: 3
 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: 3/13/2008

Revision Date: 8/28/2018

Replaces: 10/5/2016

Section(s) Revised: 14

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.