

QUADRIS TOP® SBX Fungicide

Date:

1/29/2015

Replaces:

N\A

1. PRODUCT IDENTIFICATION

| Product identifier on label | QUADRIS TOP® SBX Fungicide |
|-----------------------------|---|
| Product No.: | A20760B |
| 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 |
|---------------------|--|
| | Specific Target Organ Toxicity: Repeated Category 2 |
| | Specific Target Organ Toxicity: Drowsiness Category 3 |
| Signal Word (OSHA): | Warning |
| Hazard Statements: | Harmful if swallowed |
| | May cause respiratory irritation |
| | May cause drowsiness or dizziness |
| | May cause damage to organs through prolonged or repeated exposure. |

Hazard Symbols:



| Precautionary Statements: | Do not breathe 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. |
| | Store locked up. |
| | Dispose of contents and container in accordance with local regulations. |
| | |
| Other Hazard Statements: | None |



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3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | Common Name | CAS Number | Concentration |
|---|-------------------|--------------|---------------|
| 1,2-Propanediol | Propylene Glycol | 57-55-6 | <5% |
| Other ingredients | Other ingredients | Trade Secret | >55.4% |
| Methyl (E)-2-{2-[6-(2- cyanophenoxy)pyrimidin-4-yloxy]phenyl}-3- methoxyacrylate | Azoxystrobin | 131860-33-8 | 19.8% |
| 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 | 19.8% |

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 contol 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 importan | at symptoms/effects: |
| | |

Drowsiness or dizziness

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.

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.



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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/m³ TWA | AIHA |
| Other ingredients | Not Applicable | Not Applicable | Not Applicable | Not Applicable |
| Azoxystrobin | Not Established | Not Established | 4 mg/m³ TWA | Syngenta |
| Difenoconazole | Not Established | Not Established | 5 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.



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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: Off-white liquid Odor: Aromatic Odor Threshold: Not Available pH: 6.9 (1% in deionized water) Melting point/freezing point: Not Available Initial boiling point and boiling range: Not Applicable Flash Point (Test Method): >214°F Flammable Limits (% in Air): **NotAvailable** Flammability: Not Available Vapor Pressure: Azoxystrobin 8.25 x 10(-13) mmHg @ 68°F (20°C) 2.5 x 10(-10) mmHg @ 77°F (25°C) Difenoconazole Vapor Density: Not Available Relative Density: 1.137 g/cm³ @ 68°F (20°C) Solubility (ies): Azoxystrobin 6 mg/l in water @ 68°F (20°C) Difenoconazole 15 mg/l @ 77°F (25°C) Partition coefficient: n-octanol/water: Not Available Autoignition Temperature: 977°F Decomposition Temperature: Not Available Viscosity: 713mPa @ 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: Drowsiness or dizziness, Respiratory irritation

Delayed, immediate and chronic effects of exposure: Drowsiness or dizziness, Respiratory system effects

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

| Ingestion: | Oral (LD50 Rat) : | = 310 mg/kg body weight |
|---------------------|---------------------------------|--------------------------|
| Dermal: | Dermal (LD50 Rat) : | > 5000 mg/kg body weight |
| Inhalation: | Inhalation (LC50 Rat) : | > 2.56 mg/l |
| Eye Contact: | Practically Non-Irritating (Rat | obit) |
| Skin Contact: | Slightly Irritating (Rabbit) | |
| Skin Sensitization: | Not a Sensitizer (Mouse) | |

Reproductive/Developmental Effects

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

Difenoconazole: None observed.

Chronic/Subchronic Toxicity Studies

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

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

Carcinogenicity

Azoxystrobin : Did not show carcinogenic effects in animal experiments.

Difenoconazole: Did not show carcinogenic effects in animal experiments.

| Chemical Name | NTP/IARC/OSHA Carcinogen |
|---|--------------------------|
| 1,2-Propanediol | No |
| Other ingredients | No |
| Methyl (E)-2-{2-[6-(2-cyanophenoxy)pyrimidin- 4-yloxy]phenyl}-3-methoxyacrylate | No |
| 1H-1,2,4-Triazole, 1-[[2-[2-chloro-4-(4- chlorophenoxy)phenyl]-4-methyl-1,3-dioxolan- 2-yl]methyl]- | No |
| Other Toxicity Information Not Available | |
| Toxicity of Other Components Other ingredients Not Applicable | |



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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 |
| Difenoconazole: | Brain, liver, kidney, gastrointestinal tract |
| Inert Ingredients | |
| Other ingredients: | Not Applicable |
| 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

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/

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).

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).

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. (Azoxystrobin/Difenoconazole), 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. (Azoxystrobin/Difenoconazole) 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 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): 100-1554

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: None

CERCLA/SARA 304 Reportable Quantity (RQ): Not Applicable RCRA Hazardous Waste Classification (40 CFR 261): Not Applicable TSCA Status: TSCA R & D Exempt

| Safety Data Shee | t | | | syngenta |
|---|---|--|-------------|--|
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| 6. OTHER INFORMATION | | | | |
| <u>NFPA Hazard Ratings</u> Health: Flammability: Instability: Syngenta Haza | 2 1 0 rd Category: B, For non-e | <u>HMIS Hazard Ratings</u> Health: Flammability: Reactivity: S | 2 1 0 | 0 Minimal 1 Slight 2 Moderate 3 Serious 4 Extreme * Chronic |
| | | 1-800-334-9481 | | |
| Original Issued Date: Revision Date: Section(s) Revised: | 1/29/2015 | Replaces: | | |