

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

January 13, 2020

Ricky Kyaw Regulatory Product Manager Syngenta Crop Protection, LLC P.O. Box 18300 Greensboro, NC 27419

Subject: Registration Review Label Mitigation for Azoxystrobin, Fludioxonil and

Mefenoxam

Product Name: Maxim Quattro

EPA Registration Number: 100-1352

Application Dates: 2/1/2019

Decision Numbers: 555106; 555107; 555108

Dear Mr. Kyaw:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all of the information submitted with your application to support the Registration Review of the above referenced product in connection with Azoxystrobin, Fludioxonil and Mefenoxam Interim Decisions, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

Page 2 of 2 EPA Reg. No. 100-1352 Decision No. 555106; 555107; 555108

If you have any questions about this letter, please contact Darius Stanton by phone at 703-347-0433, or via email at Stanton.darius@epa.gov.

Sincerely,

Linda Arrington, Branch Chief Risk Management and Implementation Branch 4 Pesticide Re-Evaluation Division Office of Pesticide Programs

Enclosure

THIABENDAZOLE	GROUP	1	FUNGICIDE
MEFENOXAM	GROUP	4	FUNGICIDE
AZOXYSTROBIN	GROUP	11	FUNGICIDE
FLUDIOXONIL	GROUP	12	FUNGICIDE

#### Maxim® Quattro

# **Fungicide**

A seed treatment for the control of listed fungal diseases of field corn, sweet corn and popcorn.

# Active Ingredients:

Fludioxonil*:	3.32%
Mefenoxam**:	
Azoxystrobin***:	1.33%
Thiabendazole****:	
Other Ingredients:	66.20%
Total:	100.00%

<sup>\*</sup>CAS No. 131341-86-1

Maxim Quattro is a flowable concentrate for seed treatment containing 0.31 lb fludioxonil, 0.25 lb mefenoxam, 0.12 lb azoxystrobin and 2.50 lb thiabendazole per gallon.

#### KEEP OUT OF REACH OF CHILDREN.

# CAUTION

[See additional precautionary statements and directions for use inside booklet].

EPA Reg. No. 100-1352 EPA Est. No.

15 gallons 30 gallons 110 gallons 265 gallons

**Net Contents** 



Jan 13, 2020

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 100-1352

<sup>\*\*</sup>CAS Nos. 70630-17-0 and 69516-34-3

<sup>\*\*\*</sup>CAS No. 131860-33-8 \*\*\*\*CAS No. 148-79-8

FIRST AID□				
If in eyes	Hold eye open and rinse slowly and gently with water for 15-20 minutes.			
	Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.			
	Call a poison control center or doctor for treatment advice.			
If on skin or	Take off contaminated clothing.			
clothing	<ul> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>			
If swallowed	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> </ul>			
	<ul> <li>Have person sip a glass of water if able to swallow.</li> </ul>			
	<ul> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> </ul>			
	Do not give anything by mouth to an unconscious person.			
Have the product container with you when calling a poison control center or doctor, or going for treatment.				
HOT LINE NUMBER				
For 24-Hour Medical Emergency Assistance (Human or Animal) or				
Chemical Emergency Assistance (Spill, Leak, Fire, or Accident),				
Call				
1-800-888-8372□				

#### PRECAUTIONARY STATEMENTS

#### **Hazards to Humans and Domestic Animals**

#### CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin. Harmful if swallowed. Avoid contact with eyes, skin, 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.

# **Personal Protective Equipment (PPE)**

# Mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils, or Viton® ≥14 mils
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

# **Engineering Controls**

When handlers use closed systems in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### **User Safety Recommendations**

#### Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticides get inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **Environmental Hazards**

This product is toxic to fish, aquatic invertebrates, oysters and shrimp. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. Treated seed exposed on soil surface may be hazardous to wildlife. Cover or collect seeds spilled during loading.

# **Groundwater Advisory**

Azoxystrobin, Mefenoxam and a degradate of Azoxystrobin are known to leach through soil into groundwater under certain conditions as a result of label use. Fludioxonil has properties and characteristics associated with chemicals detected in groundwater. These chemicals may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

#### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and (2) Buyer and User assume the risk of any such use. To the extent permitted by applicable law, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For Commercial Use only. Do not use in hopper box, planter box, slurry box, or other farmer-applied applications.

Maxim Quattro must be used only in accordance with recommendations on this label or in separately published Syngenta supplemental labeling approved by EPA for this product.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Maximum usage when applying both metalaxyl- and mefenoxam-containing products to the same crop within the same season: Do not apply more than the maximum yearly total application rate for the active ingredient as stated on the label of the product containing the lowest yearly total on that crop.

FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR DISEASE CONTROL, AND/OR ILLEGAL RESIDUES.

Treatment of highly mechanically scarred or damaged seed, or seed known to be of low vigor and poor quality, except for the purpose of curative control of existing disease pests, may result in reduced germination and/or reduction of seed and seedling vigor. Treat using equipment similar to that planned for treating the total seed lot. Conduct germination tests on a small portion of seed before committing the total seed lot to a selected seed treatment. Due to seed quality and seed storage conditions beyond the control of Syngenta, no claims are made to guarantee the germination of carry-over treated seed.

#### PRODUCT INFORMATION

Maxim Quattro seed treatment fungicide is a broad-spectrum fungicide that consists of four fungicide active ingredients (fludioxonil, azoxystrobin, mefenoxam and thiabendazole). All the active ingredients have a different mode of action against fungal pathogens. This fungicide seed treatment is recommended for control of many important fungal plant diseases. Maxim Quattro may be applied in tank mixes, or sequentially with other EPA-registered seed treatment pesticide products such as Cruiser® brand insecticides and Avicta® brand nematicides. If using Maxim Quattro in a tank mixture with other seed treatment products, observe all directions for use, crops/sites, use rates, dilution ratios, precautions, and limitations which appear on the tank-mix partner label(s). Do not exceed any label dosage and the most restrictive label

precautions and limitations must be followed. This product must not be mixed with any product which prohibits such mixing.

All applications must be made according to the use directions that follow. Apply Maxim Quattro as a seed treatment following the guidelines specified in the Directions for Use section of this label

#### RESISTANCE MANAGEMENT

THIABENDAZOLE	GROUP	1	FUNGICIDE
MEFENOXAM	GROUP	4	FUNGICIDE
AZOXYSTROBIN	GROUP	11	FUNGICIDE
FLUDIOXONIL	GROUP	12	FUNGICIDE

For resistance management, please note that Maxim Quattro contains thiabendazole, a Group 1 fungicide, mefenoxam, a Group 4 fungicide, azoxystrobin, a Group 11 fungicide, and fludioxonil, a Group 12 fungicide. Any fungal population may contain individuals naturally resistant to Maxim Quattro, and other Group 1, Group 4, Group 11, or Group 12 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

Thiabendazole belongs to the methyl-benzimidazole carbamate class of chemistry which disrupts ß-tubulin assembly in mitosis. Mefenoxam belongs to the phenylamide class of chemistry which interferes with fungal RNA synthesis. Azoxystrobin belongs to the strobilurin class of chemistry which disrupts cellular respiration and energy generation. Fludioxonil belongs to the phenylpyrrole class of chemistry which interferes with osmotic signal transduction.

To delay fungicide resistance, take one or more of the following steps:

- Rotate the use of Maxim Quattro or other Group 1, Group 4, Group 11, or Group 12 fungicides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicide from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide use that includes scouting, uses historical information related to pesticide use, and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal populations for resistance development.

- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM recommendations for specific crop and pathogens.
- For further information or to report suspected resistance contact Syngenta at 1-866-Syngent(a) (866-796-4368). You can also contact your pesticide distributor or university extension specialist to report resistance.

#### MIXING PROCEDURES

Apply Maxim Quattro as a water-based slurry using seed treatment application equipment that will provide uniform coverage on the seed surface. Consult the manufacturer of the application equipment being used for calibration and operation procedures.

Maxim Quattro mixes easily with water and other water-based seed treatments manufactured by Syngenta. When mixing with products from other manufacturers, the compatibility should be tested prior to use by conducting a jar test: mix all intended seed treatments with the appropriate amount of water in a clear glass container. Mix well and allow mixture to sit for one hour. Remix and observe for incompatibility.

Mixing Maxim Quattro with tank-mix partners: Add ½ of the required water to the mix tank and turn on the agitation. Mechanical agitation is preferred. If using wettable powders, add them first to clean water allowing them to completely disperse prior to adding Maxim Quattro or other products. Allow each tank-mix partner to completely disperse before adding the next product. Add the remaining amount of water and agitate. Maintain agitation until the entire slurry mixture has been used.

- Treater must ensure an EPA-approved dye or colorant has been used that imparts an unnatural color to the seed as stated in 40 CFR 153.155(c).
- Allow seed to dry prior to bagging.

#### SEED CONTAINER LABEL REQUIREMENTS

The Federal Seed Act requires that containers of treated seeds shall be labeled with the following statements:

- This seed has been treated with fludioxonil, mefenoxam, azoxystrobin and thiabendazole fungicides.
- Do not use for feed, food, or oil purposes.

In addition, include the following statements on containers of seeds treated with Maxim Quattro:

 Ground Water Advisory: Mefenoxam is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

- Store away from feeds and foodstuffs.
- Do not allow children, pets, or livestock to have access to treated seed.
- Wear long-sleeved shirt, long pants and chemical-resistant gloves when handling treated seed.
- Treated seed must be planted into the soil at a depth greater than 1 inch.
- Treated seeds exposed on soil surface may be hazardous to wildlife. Cover or collect treated seeds spilled during loading.
- Dispose of all excess treated seed. Leftover treated seed may be doublesown around the headland or buried away from water sources in accordance with local requirements.
- Do not contaminate water bodies when disposing of planting equipment washwaters.
- Dispose of seed packaging in accordance with local requirements.
- Excess treated seed may be used for ethanol production only if:
  - (1) By-products are not used for livestock feed, and
  - (2) No measurable residues of pesticide remain in the ethanol by-products that are used in agronomic practice.
- In the event of crop failure or harvest of a crop grown from seed treated with Maxim Quattro, crops may be replanted according to the following schedule:

#### Immediate Plantback Interval Table

Alfalfa

Cereal Grains: Barley, Corn, Oat, Rye, Triticale and Wheat

Cucurbit Vegetables Crop Group 9

Head and Stem Brassica Crop Subgroup 5A

Onion, Bulb, Crop Subgroup 3-07A

Peas, Dried Shelled: Chickpea (Garbanzo Bean), Field Pea, Lentil, and Pigeon Pea

Root Vegetables (Except Sugarbeet) Crop Subgroup 1B

Soybean

Spinach

Sweet Potato

- For any other crops the minimum plantback interval is 30 days from the date seeds treated with Maxim Quattro were planted.
- Corn forage may not be grazed until 30 days after planting.

# **DIRECTIONS FOR USE**

Crop	Target Diseases	Use Rate (mg active ingredient per kernel*)	Use Rate (fl oz/80,000 kernel count)	Remarks
Corn Field Pop Sweet (includes seed production)	Seed-borne and soil-borne fungi causing decay, damping-off, and seedling blight.  Seed-borne head smut (Sporisorium reilianum)  Seedling damping-off (Rhizoctonia spp., Penicillium spp., Pythium spp and Fusarium spp.)	0.0544 – 0.0736 mg	0.39 – 0.53 fl oz	With a target rate of 0.064 mg active ingredient per kernel, the following rates for the active ingredient components (mg active ingredient per kernel) will be applied:*  0.0025 mg azoxystrobin 0.0065 mg fludioxonil 0.005 mg mefenoxam 0.05 mg thiabendazole  Treated sweet corn should be planted and not carried over to the following year.  See Apron® XL label for control of systemic downy mildew protection in sweet corn.

#### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

#### **Pesticide Storage**

Store in a cool, dry place.

### **Pesticide Disposal**

Pesticide wastes may be toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of Federal law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance in proper disposal methods.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency call 1-800-888-8372, day or night.

# Container Handling [less than or equal to 5 gallons]

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

# Container Handling [greater than 5 gallons – mini-bulk]

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ½ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities

# Container Handling [greater than 5 gallons - bulk]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER.

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For non-emergency (e.g., current product information) call Syngenta Crop Protection at 1-800-334-9481.

Manufactured for: Syngenta Crop Protection, LLC P.O. Box 18300 Greensboro, North Carolina 27419-8300

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