GROUP 7 FUNGICIDE

#### **XZEMPLAR®**

# **Fungicide**

# **SUSPENSION**

Broad spectrum fungicide for the control or suppression of listed diseases on golf course turf grass

## **COMMERCIAL**

ACTIVE INGREDIENT: Fluxapyroxad ...300 g/L

Contains 1,2-benzisothiazolin-3-one at 0.007% and 2-methyl-4-isothiazolin-3-one at 0.007%, as preservatives

# <u>OR</u>

Contains 1,2-benzisothiazolin-3-one and 2-methyl-4-isothiazolin-3-one, each at 0.0075%, and 2-bromo-2-nitropropane-1,3-diol at 0.024%, as preservatives

Warning, contains the allergen soy

**REGISTRATION NO. 33778** 

PEST CONTROL PRODUCTS ACT

IN CASE OF EMERGENCY ENDANGERING LIFE OR PROPERTY INVOLVING THIS PRODUCT, CALL DAY OR NIGHT 1-800-454-2673

#### READ THE LABEL AND ATTACHED BROCHURE BEFORE USING

# **KEEP OUT OF REACH OF CHILDREN**

**NET CONTENTS:** 0.1 L - Bulk

BASF Canada Inc. 5025 Creekbank Road Building A, 2nd Floor Mississauga, Ontario L4W 0B6 1-877-371-2273

XZEMPLAR is a registered trade-mark of BASF SE, used under license by BASF Canada Inc.

# **PRECAUTIONS**

- 1. KEEP OUT OF REACH OF CHILDREN.
- 2. **DO NOT** take internally. Harmful if swallowed.
- 3. Avoid contact with eyes, skin and clothing.
- 4. Wash exposed areas of skin thoroughly after handling and before eating, drinking or smoking.
- 5. Wear long-sleeved shirt, long pants, chemical-resistant gloves, shoes and socks during mixing, loading, application, clean up and repair.
- 6. If clothing becomes contaminated, remove and wash separately from household laundry before reuse.
- 7. Clean spray equipment thoroughly after use.
- 8. Apply only when the potential for drift to areas of human habitation or other areas of human activity such as parks, school grounds, and playing fields is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.
- 9. Not for use on other residential turf sites including residential lawns, gardens, playing fields, cemeteries and schools.

[Optional statement for smaller container size only.

Please refer to the booklet for the complete list of precautions.

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# **FIRST AID**

**If swallowed:** Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.

**If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

**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 centre or doctor for treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

## **TOXICOLOGICAL INFORMATION**

Treat symptomatically.

#### **STORAGE**

- 1. Store the leftover product in original tightly closed container.
- 2. Store this product away from food or feed.
- 3. Store the product in cool, dry, locked, well-ventilated area without floor drain.

#### **DISPOSAL**

**DO NOT** reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

- 1. Triple or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
- 2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

# **NOTICE TO USER**

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

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#### **GENERAL INFORMATION**

**Xzemplar** is a succinate-dehydrogenase inhibitor (SDHI) fungicide for the control or suppression of certain diseases on golf course turf grass. For maximum efficacy, **Xzemplar** should be applied when local conditions favour development of disease. Make applications according to the use directions that follow. Failure to follow directions and precautions on this label may result in crop injury and/or inferior disease control.

#### **PRECAUTIONS**

- 1. KEEP OUT OF REACH OF CHILDREN.
- 2. **DO NOT** take internally. Harmful if swallowed.
- 3. Avoid contact with eyes, skin and clothing.
- 4. Wash exposed areas of skin thoroughly after handling and before eating, drinking or smoking.
- 5. Wear long-sleeved shirt, long pants, chemical-resistant gloves, shoes and socks during mixing, loading, application, clean up and repair.
- 6. If clothing becomes contaminated, remove and wash separately from household laundry before reuse.
- 7. Clean spray equipment thoroughly after use.
- 8. Apply only when the potential for drift to areas of human habitation or other areas of human activity such as parks, school grounds, and playing fields is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.
- 9. Not for use on other residential turf sites including residential lawns, gardens, playing fields, cemeteries and schools.

#### **RESTRICTIONS AND LIMITATIONS**

- 1. **DO NOT** enter or allow others to enter treated area until spray has dried.
- 2. **DO NOT** apply more than a total of 30 mL of **Xzemplar** per 100 sq. metres (3.0 L per hectare) per year.
- 3. **DO NOT** apply **Xzemplar** to crops other than golf course turf grass.
- 4. **DO NOT** apply **Xzemplar** through any type of irrigation equipment.

# **FIRST AID**

**If swallowed:** Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.

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Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

#### TOXICOLOGICAL INFORMATION

Treat symptomatically.

#### **ENVIRONMENTAL PRECAUTIONS**

TOXIC to aquatic organisms and terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE.

This product demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

The residues of fluxapyroxad are persistent and may carry over. It is recommended that this product not be used in areas treated with any products containing fluxapyroxad during the previous season.

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.

Avoid application when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative filter strip between the treated area and the edge of the water body.

# **DIRECTIONS FOR USE**

Apply at the rate of **Xzemplar** as instructed in the **Specific Use Directions** with ground spray equipment. **DO NOT** apply using aerial application equipment.

# **Turf Grass Tolerance**

Tolerance on all turf grasses under all conditions has not been assessed. Therefore, it is recommended that the user apply the recommended use rate of **Xzemplar** on a small test area under conditions expected to be encountered and monitor for any adverse effects before applying **Xzemplar** to targeted area.

# **Application Rates and Intervals Table**

When applied as directed, **Xzemplar** will control the listed diseases, unless otherwise indicated as suppression.

Disease Controlled	Use Rate (mL/100 m <sup>2</sup> )	Application Interval (days)	Additional Instructions
Brown patch ( <i>Rhizoctonia solani</i> )	6.7	14 – 21	Apply preventatively when environmental conditions are conducive to disease progression.
Brown ring patch ( <i>Rhizoctonia circinata</i> var. <i>cir-cinata</i> ) (formerly known as Waitea patch)	8.3	21 – 28	Apply preventively or as symptoms become evident. Use 500 – 1500 L spray volume per hectare. Provide a short irrigation cycle directly following application to move fungicide through thatch. Use of a soil wetting agent may improve product movement downward and into contact with the disease. Disease symptoms may take 2–3 weeks to disappear following application. A sequential application is recommended. <b>Xzemplar</b> should be applied under low to moderate disease pressure.
Dollar spot	6.7	14 – 21	Use the higher rate for areas with a
(Sclerotinia homoeocarpa)	8.3	21 – 28	history of severe disease pressure.
Fairy ring ( <i>Basidiomycete</i> fungi)	8.3	21 – 28	Apply preventively or as symptoms become evident. Use 500 – 1500 L spray volume per hectare. Provide a short irrigation cycle directly following application to move fungicide through thatch. Use of a soil wetting agent may improve product movement downward and into contact with the disease. Disease symptoms may take 2–3 weeks to disappear following application. A sequential application is recommended.

Disease Controlled	Use Rate (mL/100 m <sup>2</sup> )	Application Interval (days)	Additional Instructions
Leaf spot ( <i>Bipolaris</i> spp.)	8.3	21 – 28	Apply preventatively when environmental conditions are conducive to disease progression.
Suppression of Pink snow mould ( <i>Microdochium nivale</i> )	8.3	N/A	Make a single application in the late fall just prior to snow cover.
Summer patch (Magnaporthe poae)	8.3	21 – 28	Initiate applications in the spring when soil temperatures reach 15-18°C at a 5 cm soil depth, or as dictated by local recommendations. <b>Xzemplar</b> should be applied under low to moderate disease pressure.

Apply prior to or in early stages of disease development. Use the shorter application interval and/or the higher rate when prolonged favorable disease conditions exist.

For maximum efficacy, apply **Xzemplar** at 5 to 15 litres of water per 100 square metres (500-1500 litres per hectare).

Actual length of disease control will vary depending on environmental conditions, disease pressure, and turf grass management practices.

Calibrate sprayer prior to use.

Apply after mowing or allow area to dry prior to mowing or irrigation.

Apply **Xzemplar** using sufficient water volume and pressure for adequate coverage of the foliage.

**DO NOT** apply more than two (2) sequential applications of **Xzemplar**.

**DO NOT** apply more than 3.0 L/ha of product per hectare per year.

#### **TANK MIXING**

This product may be tank mixed with a fertilizer, a supplement or with registered pest control products, whose labels also allow tank mixing, provided the entirety of both labels, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones are followed for each product. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed. Do not tank mix products containing the same active ingredient unless specifically listed on this label.

In some cases, tank mixing pest control products can result in reduced pesticide efficacy or increased host crop injury. The user should contact BASF Canada Inc. at 1-877-371-2273 for information before mixing any pesticide that is not specifically recommended on this label.

Physical incompatibility, reduced disease control or turf injury may result from mixing **Xzemplar** with other products. Therefore, before using any tank mix (fungicides, insecticides, liquid fertilizers, biological control products, adjuvant and additives) test a small portion of the turf to be treated to ensure that a phytotoxic response will not occur.

# **MIXING**

- 1. Ensure the spray tank is clean before use.
- 2. Fill the spray tank one-half full of water and start agitation.
- 3. Add the required amount of **Xzemplar** to the tank.
- 4. Add the required amount of the tank mix partner, if required.
- 5. Continue agitation while filling the remainder of the spray tank.
- 6. After use, clean the spray tank thoroughly.

As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.

**DO NOT** contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

<u>Field sprayer application</u>: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) medium classification. Boom height must be 60 cm or less above the crop or ground.

# **Spray Buffer Zones**

Spot treatments using hand-held equipment **DO NOT** require a spray buffer zone.

The spray buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands), and sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

	Crop	Spray Buffer Zones (metres) Required for the Protection of:			
Method of application		Freshwate Dep	Terrestrial Habitat		
		Less than 1 m	Greater than 1 m		
Field sprayer	Turf	1	1	1	

When tank mixes are permitted, consult the labels of the tank-mix partners and observe the largest (most restrictive) spray buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

The spray buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Spray Buffer Zone Calculator on the Pesticides portion of the Canada.ca website.

#### RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, **Xzemplar** contains a Group 7 fungicide. Any fungal population may contain individuals naturally resistant to **Xzemplar** and other Group 7 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action but are specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay fungicide/bactericide resistance:

Where possible, rotate the use of **Xzemplar** or other Group 7 fungicides with different groups that control the same pathogens.

Use tank mixtures with fungicide from a different group that is effective on the target pathogen when such use is permitted.

Fungicide use should be based on an integrated disease management program that includes scouting, historical information related to pesticide use and crop rotation and 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.

Monitor treated fungal populations for resistance development. Notify BASF Canada Inc. if reduced sensitivity of the pathogen to **Xzemplar** is suspected.

If disease continues to progress after treatment with this product, do not increase the use rate. Discontinue use of this product, and switch to another fungicide with a different site of action, if available.

Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.

For further information and to report suspected resistance, contact BASF Canada Inc. at 1-877-371-2273 or at www.betterturf.ca.

#### **STORAGE**

- 1. Store the leftover product in original tightly closed container.
- 2. Store this product away from food or feed.
- 3. Store the product in cool, dry, locked, well-ventilated area without floor drain.

# **DISPOSAL**

**DO NOT** reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

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