## GROUP 3 11 FUNGICIDES

# **QUILT XCEL<sup>™</sup> Fungicide**

COMMERCIAL

SUSPENSION

For Use in Controlling Diseases on Cereals

## **ACTIVE INGREDIENTS:**

Azoxystrobin	143 g/L
Propiconazole	124 g/L

Contains 1,2-benzisothazolin-3-one at 0.031% OR 1,2-benzisothiazolin-3-one at 0.048% and 2-bromo-2-nitropropane-1,3-diol at 0.03% OR 5-chloro-2-methyl-4-isothiazolin-3-one at 0.00100% and 2-methyl-4-isothiazolin-3-one at 0.00033% and 2-bromo-2-nitropropane-1,3-diol at 0.03% as preservatives.

## READ THE LABEL AND ATTACHED BOOKLET BEFORE USING KEEP OUT OF REACH OF CHILDREN

CAUTION

POISON

**DANGER: EYE & SKIN IRRITANT** 

REGISTRATION NO: **31074** PEST CONTROL PRODUCTS ACT

NET CONTENTS: 1-1000 L

**Syngenta Canada Inc.** 140 Research Lane, Research Park Guelph, Ontario N1G 4Z3 Telephone: 1-877-964-3682

Label

## 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.

#### FIRST AID

**IN CASE OF POISONING,** contact a physician or a poison control centre **IMMEDIATELY**. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

**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 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.

**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.

#### TOXICOLOGICAL INFORMATION

There is no specific antidote if this product is ingested. Treat symptomatically.

## PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN. HARMFUL IF SWALLOWED. Severely irritating to the eye. DO NOT get in eyes. May irritate the skin. Avoid contact with skin and clothing. Wear long pants, a long sleeve shirt, shoes and socks and chemical-resistant gloves during mixing/loading, application, clean-up and repair activities. In addition, wear goggles or a face shield during mixing and loading.

Wash with soap and water after handling, and before eating, drinking or smoking. Remove clothing immediately if pesticide gets inside. Wash contaminated clothing, separately from household laundry, before re-use. Do not wear contaminated shoes. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**DO NOT** allow entry into treated areas for 12 hours following application.

Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools, and recreation areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

If this pest control product is to be used on a commodity that may be exported to other countries in the world and you require information on acceptable residue levels in these countries, please contact Syngenta Canada Inc. at 1-87-SYNGENTA / 1-877-964-3682.

### **ENVIRONMENTAL PRECAUTIONS**

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

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 strip between the treated area and the edge of the water body.

Azoxystrobin is persistent and will carryover. It is recommended that this product not be used in areas treated with azoxystrobin during the previous season.

The properties of azoxystrobin indicate it may leach to ground water. The use of QUILT XCEL<sup>™</sup> Fungicide may result in contamination of groundwater, particularly in areas where soils are permeable (e.g. sandy soil) and/or the depth to the water table is shallow.

Toxic to certain beneficial insects. Minimize spray drift to reduce harmful effects on beneficial insects in habitats next to the application sites such as hedgerows and woodland.

#### STORAGE

Keep in original container, tightly closed, during storage. Store in a cool, dry, well ventilated area away from feed and foodstuffs, and out of the reach of children and animals. Do not store below 0 °C.

#### SPILL CLEANUP

Wear appropriate protective equipment (gloves, glasses, apron) when attempting to clean up the spill. If the container is leaking, secure leak and place the container into a drum or heavy gauge plastic bag. Contact Syngenta Canada Inc. (See EMERGENCY NUMBER) for further information.

<u>For spills and leaks</u> - contain the liquid with dikes of inert material (soil, clay, kitty litter, etc.). Absorb the spill onto inert material and shovel into a sealable waste container.

<u>On hard surfaces</u> - sprinkle spill area with detergent and scrub in a small quantity of water with a coarse broom. Let stand 10 minutes then absorb onto an inert material and shovel into the waste container.

On soil - remove the top 15 cm of soil in the spill area and replace with fresh soil. Dispose of all

waste including scrub brush in accordance with provincial requirements.

### **DECONTAMINATION AND DISPOSAL**

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 cleanup of spills.

#### CONTAINER DISPOSAL:

#### For returnable containers:

**DO NOT** reuse this container for any other purpose. This empty container may be returned to the point of purchase (distributor/dealer) for disposal.

#### For refillable containers:

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#### For recyclable containers:

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- 1. Triple- or pressure-rinse the empty container. Dispose of the rinsings in accordance with provincial requirements.
- 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.

## IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING, CALL 1-800-327-8633 (FASTMED)

QUILT XCEL<sup>™</sup> is a trademark of a Syngenta Group Company.

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140 Research Lane, Research Park Guelph, Ontario N1G 4Z3 Telephone: 1-877-964-3682

Pamphlet

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### **ENVIRONMENTAL PRECAUTIONS**

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

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Toxic to certain beneficial insects. Minimize spray drift to reduce harmful effects on beneficial insects in habitats next to the application sites such as hedgerows and woodland.

#### STORAGE

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## IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING, CALL 1-800-327-8633 (FASTMED)

#### **PRODUCT INFORMATION**

QUILT XCEL Fungicide is a broad spectrum, preventative fungicide with systemic and curative properties recommended for the control of important plant diseases in Crop Group 15 - Cereals. QUILT XCEL Fungicide may be applied as a foliar spray in alternating spray programs. All applications should be made according to the use directions that follow.

#### **General Use Precautions**

DO NOT apply QUILT XCEL Fungicide through irrigation equipment.

DO NOT use in nurseries, greenhouses or landscape plantings.

Under certain conditions conducive to extended infection periods, use another registered fungicide for additional applications.

## **Rotational Crop Precautions**

To avoid possible residues above the acceptable limit, DO NOT plant any other crop intended for food, grazing, or any component of animal feed or bedding within 105 days of QUILT XCEL Fungicide application to the preceding crop unless the second crop appears on this label.

Oats and rye may be planted 45 days after QUILT XCEL Fungicide application.

## Phytotoxicity

QUILT XCEL Fungicide demonstrates some phytotoxic effects when mixed with products that are formulated as Emulsifiable Concentrate. These effects are enhanced if applications are made under cool, cloudy conditions and these conditions remain for several days following application. In addition, adjuvants that contain some form of silicone may contribute to phytotoxicity.

#### INTEGRATED PEST MANAGEMENT

QUILT XCEL Fungicide should be integrated into an overall disease and pest management strategy whenever the use of a fungicide is required. Cultural practices known to reduce disease development should be followed. The DIRECTIONS FOR USE section in this label identifies specific IPM recommendations for each crop. Consult your local agricultural authorities for additional IPM strategies established for your area.

## DIRECTIONS FOR USE

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 waste.

**Field sprayer application: 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.

<u>Aerial application</u>: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply when wind speed is greater than 16 km/h at flying height at the site of application. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) medium classification. To reduce drift caused by turbulent wingtip vortices, the nozzle distribution along the spray boom length **MUST NOT** exceed 65% of the wing- or rotorspan.

**DO NOT** apply through irrigation equipment.

**DO NOT** apply through any type of ultra-low volume (ULV) spray system (less than 30 liters per hectare).

#### Buffer zones:

Use of the following spray methods or equipment **DO NOT** require a buffer zone: hand-held or backpack sprayer and spot treatment.

The 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), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of	Cr	ор	Buffer Zones (meters) Required for the Protection of:				
Application	1		Freshwate of De			ne/Marine of Depths:	Terrestrial habitat
		Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m		
Field Sprayer*	Cereals		1	0	1	0	1
Aerial	Cereals	Fixed Wing	1	0	3	1	20
		Rotary Wing	1	0	1	1	20

\* For field sprayer application, buffer zones can be reduced with the use of drift reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy, the labelled bufferzone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with cone-shapedshields that are no more than 30 cm above the crop canopy, the labelled buffer zone can be reduced by 30%.

## GROUND APPLICATION

## Spray Equipment

Equip sprayers with nozzles that provide accurate and uniform application. Be certain that nozzles are the same size and uniformly spaced across the boom. Calibrate sprayer before use.

Use a pump with capacity to: (1) maintain at least 35-40 psi at nozzles, and (2) provide sufficient agitation in tank to keep mixture in suspension - this requires recirculation of 10% of tank volume per minute. Use a jet agitator or liquid sparge tube for agitation. DO NOT air sparge.

QUILT XCEL Fungicide is a suspoemulsion concentrate. It is suggested that screens be used to protect the pump and to prevent nozzles from clogging. Screens placed on suction side of pump should be *16-mesh or coarser*. DO NOT place a screen in the recirculation line. Use 50-mesh or coarser screens between the pump and boom, and where required, at the nozzles. Check nozzle manufacturer's recommendations. For more information on spray equipment and calibration, consult sprayer manufacturers and provincial recommendations.

## Spraying/Mixing

QUILT XCEL Fungicide may be applied with all types of spray equipment commonly used for making ground application. Proper adjustments and calibration of spraying equipment to give good canopy penetration and coverage is essential for good disease control. The higher rates in the rate range and/or shorter spray intervals may be required under conditions of heavy infection pressure, highly susceptible varieties, or when environmental conditions conducive to disease exist. Apply QUILT XCEL Fungicide in sufficient water volume for adequate coverage and canopy penetration.

Prepare no more spray mixture than is required for the immediate operation. Thoroughly clean spray

equipment before using this product. Agitate the spray solution before and during application. Rinse spray tank thoroughly with clean water after each day's use and dispose of pesticide rinsate by application to an already treated area.

Add 1/2-2/3 of the required amount of water to the spray or mixing tank. With the agitator running, add QUILT XCEL Fungicide to the tank and continue agitation while adding the remainder of the water. Begin application of the spray solution after the QUILT XCEL Fungicide has completely dispersed into the mix water and maintain agitation until all of the mixture has been sprayed.

## AERIAL APPLICATION

#### Instruction for Aerial Application

Apply only by fixed-wing or rotary aircraft equipment which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label.

Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product. Apply only at the rate recommended for aerial application on this label. Where no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment.

Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices.

#### **Use Precautions**

Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage. Apply only under conditions of good practice specific to aerial application as outlined in the *National Aerial Pesticide Application Manual*, developed by the Federal/Provincial/Territorial Committee on Pest Management and Pesticides.

#### **Operator Precautions**

DO NOT allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted.

It is desirable that the pilot have communication capabilities at each treatment site at the time of application.

The field crew and the mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during mixing/loading, cleanup and repair. Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the existing ground boom label.

All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly. **Product-Specific Precautions** 

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-87-SYNGENTA (1-877-964-3682) or obtain technical advice from the distributor

or your provincial agricultural representative. Application of this specific product must meet and/or conform to the following:

Apply in at least 45 litres of water per hectare.

Avoid spraying when the wind is blowing towards a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat.

#### SPRAY DRIFT MANAGEMENT

#### ATTENTION

QUILT XCEL Fungicide is extremely phytotoxic to certain apple varieties.

AVOID SPRAY DRIFT. Extreme care must be used to prevent injury to apple trees (and apple fruit). DO NOT spray QUILT XCEL Fungicide where spray drift may reach apple trees.

AVOID spraying when conditions favor drift beyond area intended for application. Conditions which may contribute to drift include thermal inversion, wind speed and direction, sprayer nozzle/pressure combinations, spray droplet size, etc.

DO NOT use spray equipment which has been previously used to apply QUILT XCEL Fungicide to spray apple trees. Even trace amounts can cause unacceptable phytotoxicity to certain apple and crabapple varieties.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

USE DIRECTIONS	
CEREALS	
CROPS	Barley
DISEASE	Barley net blotch ( <i>Pyrenophora teres</i> ) Barley scald ( <i>Rhynchosporium secalis</i> ) Barley leaf rust ( <i>Puccinia hordei</i> ) Septoria leaf spot ( <i>Septoria</i> sp.) Tan spot ( <i>Pyrenophora tritici-repentis</i> ) Stripe rust ( <i>Puccinia striiformis</i> )
PRODUCT RATE (L/ha)	0.53
APPLICATION TIMING	Apply once between stem elongation and half-head emergence (G.S. 29-55). Good spray coverage and canopy penetration are important for best results.
CROPS	Rye
DISEASE	Barley scald ( <i>Rhynchosporium secalis</i> ) Septoria leaf spot ( <i>Septoria</i> sp.) Tan spot ( <i>Pyrenophora tritici-repentis</i> )
PRODUCT RATE (L/ha)	0.53
APPLICATION TIMING	Apply once between stem elongation and half-head emergence (G.S. 29-55). Good spray coverage and canopy penetration are important for best results.

#### **USE DIRECTIONS**

CEREALS	
CROPS	Triticale
DISEASE	Septoria leaf spot ( <i>Septoria</i> sp.) Tan spot ( <i>Pyrenophora tritici-repentis</i> )
PRODUCT RATE (L/ha)	0.53
APPLICATION TIMING	Apply once between stem elongation and half-head emergence (G.S. 29-55). Good spray coverage and canopy penetration are important for best results.
CROPS	Wheat
DISEASE	Septoria leaf spot ( <i>Septoria</i> sp.) Tan spot ( <i>Pyrenophora tritici-repentis</i> ) Stripe rust ( <i>Puccinia striiformis</i> ) Wheat leaf rust ( <i>Puccinia triticina</i> )
PRODUCT RATE (L/ha)	0.53
APPLICATION TIMING	Apply once between stem elongation and half-head emergence (G.S. 29-55). Good spray coverage and canopy penetration are important for best results.
CROPS	Oats
DISEASE	Barley net blotch ( <i>Pyrenophora teres</i> ) Crown Rust ( <i>Puccinia coronata</i> var. <i>avenae</i> ) Septoria leaf spot ( <i>Septoria</i> sp.)
PRODUCT RATE (L/ha)	0.53
APPLICATION TIMING	Apply once between stem elongation and half-head emergence. Good spray coverage and canopy penetration are important for best results.
days of harvest for grain an PHI). Not all of these cerea	<b>s:</b> DO NOT make more than one application per season. DO NOT apply within 45 nd straw (45 day PHI). DO NOT harvest within 30 days for forage and hay (30 day all crops have been tested for efficacy and phytotoxicity at the recommended label ungicide should be used at the discretion of the user. OLULT XCEL Europicide may

PHI). Not all of these cereal crops have been tested for efficacy and phytotoxicity at the recommended label rates and QUILT XCEL Fungicide should be used at the discretion of the user. QUILT XCEL Fungicide may be applied by air or ground equipment. GROUND APPLICATION: Apply specified rates in a minimum of 100 L of water per hectare.

AFRIAL APPLICATION: Apply specified rates in a minimum of 45 L of water per hectare.

## **RESISTANCE MANAGEMENT RECOMMENDATIONS**

For resistance management, please note that QUILT XCEL Fungicide is a mixture of Group 3 (propiconazole) and Group 11 (azoxystrobin) fungicides. QUILT XCEL Fungicide has two modes of action: (1) DMI (Demethylation Inhibitor of sterol biosynthesis) [Group 3], and (2) inhibitor of the Qo (quinone outside) site within the electron transport system (QoI) as well as disrupting membrane synthesis by blocking demethylation [Group 11]. Any fungal population may contain individuals naturally resistant to QUILT XCEL Fungicide and other Group 3 or Group 11 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 specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance management strategies should be followed.

## To delay fungicide resistance:

DO NOT exceed the total number of applications of QUILT XCEL Fungicide per season per crop as stated in label.

Follow the specific crop recommendations that limit the total number of sprays on a crop and the

required alternations with fungicides from other resistance management groups.

In situations requiring multiple sprays, develop season long spray programs for Group 11 (QoI) fungicides. The program should meet the goal of no more than 1/3 of the total sprays per season, when a Group 11 fungicide is used as a solo product, or 1/2 the total sprays when a Group 11 fungicide is used in a mixture. Programs that include both solo Group 11 products and/or mixes containing Group 11 products should be no more than 1/2 the total sprays.

Where possible, rotate the use of QUILT XCEL Fungicide or other Group 3 and 11 fungicides with different fungicide groups that control the same pathogens.

DO NOT apply sequential treatments of QUILT XCEL Fungicide, or other fungicides in the same Fungicide Group, in a season. DO NOT apply at rates lower than recommended on the label.

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 Syngenta Canada Inc. if reduced sensitivity of the pathogen to QUILT XCEL Fungicide 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 target site of action, to which pathogen resistance has not developed.

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 or to report suspected resistance, contact a company representative at 1-87-SYNGENTA (1-877-964-3682) or at <u>www.syngenta.ca</u>.

#### Application Limitation and Preharvest Interval (PHI) Summary

Сгор	PHI Interval	Maximum number of applications per year
Grain and straw: wheat, barley, oats, triticale, rye	45 days	1
Forage and hay: wheat, barley, oats, triticale, rye	30 days	1

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