

Group	<b>11</b>	Fungicide
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**FLINT™ 50WG Fungicide**

WETTABLE GRANULES

FUNGICIDE

COMMERCIAL

For control of certain diseases in grapes, pome fruits group (apple, crabapple, loquat, mayhaw, pear, pear oriental and quince), cherries, wheat (winter, spring, hard red, durum, Canada prairie, soft white) and hazelnut.

FLINT 50WG Fungicide is a water-dispersible granule.

**GUARANTEE:**

Trifloxystrobin

50%

**READ THE LABEL AND BOOKLET BEFORE USING**

REGISTRATION NO.: **27529**  
PEST CONTROL PRODUCTS ACT

**KEEP OUT OF REACH OF CHILDREN****CAUTION EYE IRRITANT, POTENTIAL SKIN SENSITIZER****Net Contents: 567 g**

Bayer CropScience Inc.  
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Calgary, Alberta T2Z 3X2

**PRODUCT INFORMATION/EMERGENCIES: 1-888-283-6847**

## 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. The user assumes the risk to persons or property that arises from any such use of this product.

## FIRST AID:

**If swallowed:** Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.  
**If in eyes:** Hold eye open and rinse slowly and gently with water for 15 to 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 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.

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

## TOXICOLOGICAL INFORMATION:

Treat symptomatically.

## PRECAUTIONS:

- KEEP OUT OF REACH OF CHILDREN. May irritate eyes. Avoid contact with eyes. Harmful if absorbed through skin. Potential skin sensitizer. Avoid contact with skin, or clothing. Wash exposed areas of skin thoroughly with soap and water after handling.
- Restricted Entry Intervals:
  - For grapes: **DO NOT** enter, or allow worker entry, into treated areas within 12 days after application to carry out girdling activities and within 5 days after application to carry out pruning, thinning, training, tying and leaf pulling activities. For all other activities, **DO NOT** enter, or allow worker entry, into treated areas for 12 hours after application.
  - For pome fruits group (apple, crabapple, loquat, mayhaw, pear, pear oriental, quince) and cherries: **DO NOT** enter, or allow worker entry, into treated areas within 4 days after application to carry out thinning activities. For all other activities, **DO NOT** enter, or allow worker entry, into treated areas for 12 hours after application.
  - For all other crops: **DO NOT** enter, or allow worker entry, into treated areas

for 12 hours after application.

- Wear long-sleeved shirt, long pants and chemical resistant gloves during mixing, loading, application, clean up and repair.
- Remove clothing **IMMEDIATELY** if pesticide gets inside. Then wash exposed areas of skin thoroughly and put on clean clothing.
- **DO NOT** use, pour, spill, or store product near heat or open flame.
- **DO NOT** apply this product through any type of irrigation system.
- **DO NOT** apply FLINT 50WG Fungicide in combination with organosilicate surfactants or crop injury may occur.
- Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature, application equipment and sprayer settings.
- If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's website at [www.croplife.ca](http://www.croplife.ca).

## **DO NOT APPLY BY AIR**

### **ENVIRONMENTAL HAZARDS:**

Observe buffer zones specified under Use Directions for Specific Crops.

**DO NOT** apply beyond the field boundary.

Toxic to fish and other aquatic organisms. **DO NOT** apply directly to aquatic habitats (such as lakes, rivers, sloughs, ponds, coulees, prairie potholes, creeks, marshes, streams, reservoirs, and wetlands) and estuarine/marine habitats. **DO NOT** contaminate water by cleaning of equipment or disposal of wastes.

HARMFUL TO BENEFICIAL PREDATORY OR PARASITIC ARTHROPODS. Minimize spray drift (see Application Instructions) to reduce effects on beneficial arthropods in habitats adjacent to the application site such as hedgerow and woodland.

**DO NOT** apply to areas where runoff is likely to occur. Runoff from treated areas into aquatic habitats may be hazardous to aquatic organisms. Site characteristics that may lead to runoff following heavy rainfall include, but are not limited to: a moderate to steep slope, bare soil, poorly draining soil (e.g. soils that are compacted, fine textured, or low in organic matter). If rainfall is imminent, delay spraying.

Residues of 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.

### **CONTAINER DECONTAMINATION AND 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.

#### **PRODUCT 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 clean-up of spills.

#### **STORAGE:**

Store in a cool, dry, place away from food, drinks, and animal feeding stuffs. Keep in the original container tightly closed.

**In case of emergency involving a major spill, fire or poisoning  
Call CANUTEC 24-hours  
Collect: 0-613-996-6666**

#### **GENERAL INFORMATION**

FLINT 50WG Fungicide is a broad spectrum fungicide for the control of certain diseases in grapes, pome fruits group (apple, crabapple, loquat, mayhaw, pear, pear oriental and quince), cherries, wheat (winter, spring, hard red, durum, Canada prairie, soft white) and hazelnut. FLINT 50WG Fungicide works by interfering with respiration in plant pathogenic fungi. FLINT 50WG Fungicide is a potent inhibitor of spore germination and mycelial growth.

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

**FLINT 50WG Fungicide is part of a season-long control program, which may include different fungicide products as needed. Observe the maximum number of applications for FLINT 50WG Fungicide noted below.**

**DO NOT APPLY FLINT 50WG Fungicide TO CONCORD GRAPES OR CROP INJURY MAY OCCUR.**

**DO NOT apply FLINT 50WG Fungicide where spray drift may reach Concord grapes or crop injury may occur. Spray equipment should be rinsed after applying FLINT 50WG FUNGICIDE before application of other products to Concord**

**grapes or crop injury may occur.**

## **RESISTANCE MANAGEMENT**

FLINT 50WG Fungicide belongs to the strobilurin class of chemistry which exhibits no known cross-resistance to other chemical classes including sterol inhibitors, dicarboximides, benzimidazoles, anilinopyrimidines, or phenylamides. Trifloxystrobin (the active ingredient in FLINT 50WG Fungicide) does exhibit cross-resistance to other strobilurin fungicides such as azoxystrobin and kresoxim-methyl.

For resistance management, please note that FLINT 50WG Fungicide contains a Group 11 fungicide. Any fungal population may contain individuals naturally resistant to FLINT 50WG Fungicide and other Group 11 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same locations. 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 resistance:

- Where possible, rotate the use of FLINT 50WG Fungicide or other Group 11 fungicides with different groups that control the same pathogens.
- Avoid application of consecutive sprays of FLINT 50WG Fungicide or other fungicides in the same group in a season. Do not apply more than 2 sequential applications of FLINT 50WG Fungicide or other Group 11 fungicides before alternating to a nonstrobilurin fungicide. On pome fruits, switch to a non-strobilurin fungicide for at least 2 applications before applying a strobilurin fungicide again.
- Do not exceed the total number of applications of FLINT 50WG Fungicide per season as indicated.

<b>CROP TYPE</b>	<b>MAXIMUM NUMBER OF APPLICATIONS OF FLINT 50WG Fungicide AT ANY RATE</b>
Table or wine grapes	4
Other grapes	3
Pome fruit group (apple, crabapple, loquat, mayhaw, pear, pear oriental, quince)	4
Cherries	5
Wheat (winter, spring, hard red, durum, Canada prairie, soft white)	2
Hazelnut	4

- Fungicide use should be based on an IPM program that includes scouting, historical information related to pesticide use and cover crop and considers cultural, biological and other chemical control practices.
- 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, if available.

- Contact your local extension specialist or certified turf or crop advisors for any additional pesticide resistance management or IPM recommendations for specific pathogens.
- For further information or to report suspected resistance, contact a Bayer CropScience representative at 1-888-283-6847 or at [bayercropscience.com](http://bayercropscience.com).

## SPRAY EQUIPMENT

Thorough coverage is necessary to provide good disease control. Applications using sufficient water volume to provide thorough and uniform coverage generally provide the most effective disease control. For ground application equipment, a minimum of 500 L/ha is recommended for tree crops and grapes, and 100 L/ha for other crops.

### Air Blast Sprayers

Air assisted or air blast sprayers move spray droplets into the crop canopy using a forced air system. The fan should be set up to deliver only enough air volume to penetrate the canopy and provide good coverage. Adjust deflectors or other aiming devices to direct spray only to the target area.

Equip sprayers with nozzles that provide accurate and uniform application. Check whirl plates and nozzle discs for wear and replace as necessary. Calibrate the sprayer before use.

Use a pump with a capacity to maintain the correct rated pressure for the nozzles selected. Maintain sufficient agitation to keep the mixture in suspension. Use jet agitators, a liquid sparge tube, or mechanical paddles for agitation.

It is suggested that screens be used to prevent nozzles from clogging. Screens placed after the tank and before the nozzles should be 50 mesh or coarser. Check nozzle manufacturer's recommendations.

### Broadcast Ground Sprayers

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 the sprayer before use.

Use a pump with the capacity to : (1) maintain a minimum of 241.5 kPa (35 psi) at nozzles, and (2) provide sufficient agitation in the tank to keep the mixture in suspension - this requires recirculation of 10% of the tank volume per minute. Use jet agitators or a liquid sparge tube for vigorous agitation.

Use screens to protect the pump and to prevent nozzles from clogging. Screens placed on the suction side of the pump should be **16-mesh or coarser**. **DO NOT** place a screen in the recirculation line. Use 50-mesh screens at the nozzles. Check nozzle manufacturer's recommendations.

For information on spray equipment and calibration, consult sprayer manufacturer's and/or provincial recommendations. For specific local directions and spray schedules, consult the current provincial recommendations.

## MIXING PROCEDURES

Prepare no more spray mixture than is needed for the immediate operation. Thoroughly clean spray equipment before using this product. Vigorous agitation is necessary for proper dispersal of the product. Maintain maximum agitation throughout the spraying operation. **DO NOT** let the spray mixture stand overnight in the spray tank. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area.

Add 1/2 of the required amount of water to the mix tank. With the agitator running, add the FLINT 50WG Fungicide to the tank. Continue agitation while adding the remainder of the water. Begin application of the solution after the FLINT 50WG Fungicide has completely and uniformly dispersed into the mix water. Maintain agitation until all of the mixture has been applied.

## USE DIRECTIONS FOR SPECIFIC CROPS

### Application instructions

**DO NOT** apply during periods of dead calm or when winds are gusty. **DO NOT** overspray nontarget terrestrial or aquatic habitats. **DO NOT** contaminate aquatic habitats when cleaning and rinsing spray equipment or containers.

Airblast application: **DO NOT** direct spray above plants to be treated and turn off outward pointing nozzles at row ends and outer rows. **DO NOT** apply when wind speed is greater than 16 km/hr at the application site as measured outside of the treatment area on the upwind side.

### Buffer zones

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

Method of application	Buffer zone (metres) required for the protection of:		
	Terrestrial habitat	Freshwater habitat	Estuarine / marine habitat
Field sprayer	0	10	6
Airblast (early season)	1	17	13
Airblast (late season)	1	9	6

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**GRAPES:**

**DO NOT** apply FLINT 50WG Fungicide to Concord grapes or crop injury may occur. **DO NOT** apply FLINT 50WG Fungicide where spray drift may reach Concord grapes or crop injury may occur. Spray equipment should be rinsed after applying FLINT 50WG Fungicide before application of other products to Concord grapes or crop injury may occur.

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Disease Control	Rate g/ha	Application Timing	Notes
<b>Powdery Mildew</b> ( <i>Uncinula necator</i> )	105-140	Begin applications preventively and continue as needed on a 14-21 day interval.	Use the shorter intervals when disease pressure is severe.
<b>Black Rot</b> ( <i>Guignardia bidwellii</i> )	140	Begin applications when shoots are 3-9 cm (1-3 in.) in length and continue as needed on a 7-14 day interval.	Flint 50WG Fungicide is most effective when applied preventatively.

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**Restrictions:** **DO NOT** apply more than 560 g of FLINT 50WG Fungicide per hectare per season. **DO NOT** apply FLINT 50WG Fungicide within 14 days of harvest. **DO NOT** exceed more than four (4) applications of FLINT 50WG Fungicide or other strobilurin fungicides to table or wine grapes per season. On grapes for all other uses to limit the potential for resistance to develop, **DO NOT** apply more than 2 sequential applications of FLINT 50WG Fungicide or other strobilurin fungicides before alternating to a non-strobilurin fungicide.

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**Cherries (Sweet and Tart)**

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Disease Control	Rate g/ha	Application Timing	Notes
<b>Powdery Mildew</b> ( <i>Podosphaera clandestina</i> )	175 - 210	Begin applications preventatively at petal fall and repeat at 7-14 day intervals.	Use higher rate and shorter spray interval when disease pressure is severe.
<b>Leaf Spot</b> ( <i>Blumeriella jaapii</i> )			

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**Restrictions:** **DO NOT** apply more than 1050 g of FLINT 50 WG Fungicide per hectare per season. **DO NOT** apply FLINT 50WG Fungicide within 1 day of harvest. **DO NOT** exceed more than 5 total applications of FLINT 50WG Fungicide per season. **DO NOT** apply more than 2 sequential applications of FLINT 50 WG Fungicide or other strobilurin fungicides before alternating to a non-strobilurin fungicide to limit the potential for resistance to develop. **DO NOT apply FLINT 50WG Fungicide where spray drift may reach Concord grapes or crop injury may occur. Spray equipment should be rinsed after applying FLINT 50WG Fungicide before application of other products to Concord grapes or crop injury may occur.**

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**Pome Fruits Group: Apples, Crabapples, Loquat, Mayhaw, Pear, Pear oriental, Quince**

<b>Disease Control</b>	<b>Rate g/ha</b>	<b>Application Timing</b>	<b>Notes</b>
<b>Scab</b> ( <i>Venturia</i> spp.)	140-175	Begin applications at green tip and continue as needed on a 7-10 day interval.	FLINT 50WG Fungicide will provide up to 96 hours of post-infection control of apple scab. Scab applications should begin as soon as possible following a scab infection period. A reliable forecasting system must be used.
<b>Sooty Blotch</b> ( <i>Gloeodes pomigena</i> ) <b>Fly Speck</b> ( <i>Schizothyrium pomi</i> )	140-175	Begin applications preventively. Continue applications as needed on a 10-14 day interval.	Use the higher rates and shorter intervals when disease pressure is severe.  <b>Alternate with a non-strobilurin fungicide, use a sterol inhibitor product if available</b>  For powdery mildew control use higher rate during pink to bloom stage.
<b>Powdery Mildew</b> ( <i>Podosphaera leucotricha</i> )  <b>Cedar Apple Rust</b> ( <i>Gymnosporangium juniperi-virginianae</i> )	140-210		

**Restrictions:** **DO NOT** apply more than 770 g of FLINT 50WG Fungicide per hectare per season. **DO NOT** apply FLINT 50WG Fungicide within 14 days of harvest. **DO NOT** exceed more than 4 total applications of FLINT 50WG Fungicide or other strobilurin fungicides per season. To limit the potential for resistance to develop, **DO NOT** apply more than 2 sequential applications of FLINT 50WG Fungicide or other strobilurin fungicides. If 2 sequential applications are made, switch to a labeled non-strobilurin fungicide for at least 2 applications before applying a strobilurin fungicide again. **DO NOT apply FLINT 50WG Fungicide where spray drift may reach Concord grapes or crop injury may occur. Spray equipment should be rinsed after applying FLINT 50WG Fungicide before application of other products to Concord grapes or crop injury may occur.**

**Wheat: winter, spring, hard red, durum, Canada prairie, soft white**

Disease Control	Rate g/ha	Application Timing	Notes
<b>Rust</b> ( <i>Puccinia</i> spp.)	245	Begin applications preventively when conditions are favorable for disease development, typically before boot stage. A second application may be made if needed.	Sequential applications should be applied at a minimum interval of 14 days.  If needed, the second application should be made between 14-21 days after the first. <b>DO NOT</b> apply within 14 days of the first treatment.
<b>Powdery mildew</b> ( <i>Erysiphe graminis</i> )			
<b>Leaf blight</b> ( <i>Septoria tritici</i> )			
<b>Tan spot</b> ( <i>Pyrenophora tritici-repentis</i> )			

**Restrictions: DO NOT** apply more than 2 applications or a total of 490 g of FLINT 50WG Fungicide per hectare per season. **DO NOT** apply FLINT 50WG Fungicide within 45 days of harvest. Grazing Restrictions: a) if 2 applications or a total of 490 g of FLINT 50WG Fungicide per hectare per season are applied, **DO NOT** allow livestock to graze within the treated area and **DO NOT** harvest the treated crop for forage or hay. b) If 1 application or a total of 245 g of FLINT 50WG Fungicide per hectare per season are applied, **DO NOT** allow livestock to graze within the treated area within 30 days after application, and **DO NOT** harvest the treated crop for forage within 30 days after application and 45 days for grain, straw and for hay.

**NOTE TO USER:** READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATIONS:

The DIRECTIONS FOR USE for this product for the use on hazelnuts were developed by persons other than Bayer CropScience and accepted for registration by Health Canada under the User Requested Minor Use Label Expansion program. Bayer CropScience itself makes no representation or warranty with respect to performance (efficacy) or crop tolerance (phytotoxicity) claims for this product when used on hazelnuts. Accordingly, the Buyer and User assume all risks related to performance and crop tolerance arising, and agree to hold Bayer CropScience harmless from any claims based on efficacy or phytotoxicity in connection with the use on hazelnuts.

#### **Hazelnuts**

<b>Disease Control</b>	<b>Rate g/ha</b>	<b>Application Timing</b>	<b>Notes</b>
<b>Eastern Filbert Blight</b> <i>(Anisogramma anomala)</i>	140-280	Begin applications preventively at bud break and continue as needed on a 14-day interval.	Use the higher rate when disease pressure is severe.

Restrictions: **DO NOT** apply more than 4 applications or a total of 1120 g of FLINT 50WG Fungicide per hectare per season. **DO NOT** apply FLINT 50WG Fungicide within 60 days of harvest. Apply in a minimum water volume of 500 L/ha. To limit the potential for resistance to develop, **DO NOT** apply more than 2 sequential applications of FLINT 50WG Fungicide or other strobilurin fungicides (Group 11 Fungicides). If 2 sequential applications are made, switch to a labeled non-strobilurin fungicide for at least 2 applications before applying a strobilurin fungicide again. **DO NOT apply FLINT 50WG Fungicide where spray drift may reach Concord grapes or crop injury may occur. Spray equipment should be rinsed after applying FLINT 50WG Fungicide before application of other products to Concord grapes or crop injury may occur.**

#### **ROTATIONAL CROPS**

Treated areas may be replanted **IMMEDIATELY** following harvest with any crop listed on this label. For crops not listed on this label **DO NOT** plant back within 30 days of last application.

<sup>TM</sup> FLINT is a trademark of Bayer AG.