

Pamphlet label

GROUP

3

FUNGICIDE

MISSION 418 EC

FUNGICIDE

COMMERCIAL

Emulsifiable Concentrate for disease control in Peaches, Nectarines, Plums, Sweet Cherries, Sour Cherries, Apricots, Highbush and Lowbush Blueberries, Saskatoon Berries, Cranberries, Caneberries, Strawberries, Rutabagas, Asparagus, Western Red Cedar, and Kentucky Bluegrass Grown for Seed.

GUARANTEE:

Propiconazole 418 g/L

READ THE LABEL AND PAMPHLET BEFORE USING

REGISTRATION NO. 28016
PEST CONTROL PRODUCTS ACT

WARNING



POISON

WARNING

EYE AND SKIN IRRITANT

POTENTIAL SKIN SENSITIZER

Net Contents: 1 Litre

Makhteshim Agan of North America
4515 Falls of Neuse Road, Suite 300
Raleigh, NC 27609 USA
Telephone: 919 256-9305

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:

Contains petroleum distillates at greater than 10%.

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

TOXICOLOGICAL INFORMATION:

There is no specific antidote for this product. Apply symptomatic therapy. This product contains PETROLEUM DISTILLATES.

PRECAUTIONS:

KEEP OUT OF THE REACH OF CHILDREN. Do not get in eyes, on skin or on clothing. Avoid breathing spray mist or vapours. Harmful or fatal if swallowed, inhaled or absorbed through the skin. Causes eye and skin irritation. This product may cause skin-sensitization reactions in certain individuals.

Wear neoprene gloves, long-sleeve shirt, socks, chemical resistant footwear and overalls when mixing, handling the product and during equipment cleanup and repairs. Wear protective goggles or faceshield when handling the concentrated product. The wearing of neoprene gloves by pilots when entering the aircraft is essential. Mechanical flagging devices must be used.

Do not eat, drink or smoke during work; wash hands and face thoroughly before doing so. Immediately wash off accidental splashes of the concentrate or spray mixture from skin, clothing and out of eyes.

After work, change clothing and wash entire body thoroughly. Wash contaminated working clothes separately from other laundry before reuse.
Do not contaminate food or feed.

NOTE: Do not graze livestock on treated green crops.

This product contains a petroleum distillate which is moderately to highly toxic to aquatic organisms. Avoid contamination of aquatic systems during application. Do not contaminate these systems through direct application, disposal of waste or cleaning of equipment.

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 web site at: www.croplife.ca.

STORAGE: To prevent contamination, store this product away from food or feed.

CONTAINER 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:

- Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
- 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.

IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING CALL 1-800-535-5053.

ENVIRONMENTAL HAZARDS

TOXIC to aquatic organisms. To reduce runoff from treated areas into aquatic habitats, consider the characteristics and conditions of the site before treatment. Site characteristics and conditions that may lead to runoff include, but are not limited to: heavy rainfall, moderate to steep slope, bare soil, poorly draining soil (e.g., soils that are compacted or fine textured such as clay). Avoid application of this product when heavy rain is in the 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.

RESISTANCE MANAGEMENT:

For resistance management, please note that MISSION 418 EC contains a Group 3 fungicide. Any fungal population may contain individuals naturally resistant to MISSION 418 EC and other Group 3 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:

- Where possible, rotate the use of MISSION 418 EC or other Group 3 fungicides with different groups that control the same pathogens.
- Use tank mixtures with fungicides from a different group when such use is permitted.
- Fungicide use should be based on an IPM program that includes scouting, historical information related to pesticide use and crop rotation and considers cultural, biological and other chemical control practices.
- Monitor treated fungal populations for resistance development.
- 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 crop advisor for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.
- For further information and to report suspected resistance, contact Makhteshim-Agan of North America Ltd. at 1-919 256-9300.

GENERAL INFORMATION

MISSION 418 EC is a broad-spectrum systemic fungicide for control of a wide range of diseases on certain crops and will protect the crop from yield and quality losses due to disease. MISSION 418 EC may be used in conjunction with higher seeding rates, higher fertilizer inputs, plant growth regulators and other fungicides as required. (See “NOTE” under PRECAUTIONS.)

Diseases Controlled:

Cranberries	Cottonball (<i>Monilinia oxycocci</i>)
Kentucky Bluegrass Grown for Seed	Powdery Mildew
Lowbush Blueberries	Monilinia Blight (Mummyberry)
Highbush Blueberries	Mummyberry (<i>Monilinia vaccinii – corymbosi</i>)
Peaches, Nectarines, Plums, Apricots	Brown Rot Blossom Blight, Fruit Brown Rot
Sweet and Sour Cherries	Brown Rot Blossom Blight, Fruit Brown Rot, Cherry Leaf Spot (<i>Blumeriella jaapii</i>)
Plums and Sour Cherries	Black Knot (<i>Apiosporina morbosa</i>) [suppression only]

Rutabagas	Powdery Mildew
Asparagus	Rust (<i>Puccinia asparagi</i>)
Saskatoon Berry	Entomosporium Leaf and Berry Spot, Saskatoon Juniper Rust
Western Red Cedar	Keithia Foliar Blight

Factors Affecting MISSION 418 EC Performance: MISSION 418 EC should be applied as a preventative disease control measure. Established diseases are more difficult to control and may have already reduced crop vigour.

If rainfall occurs within one hour of application, reapplication is necessary.

DIRECTIONS FOR USE:

DO NOT apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs, ditches and wetlands), estuaries or marine habitats.

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

AERIAL APPLICATION

Apply only by fixed-wing or rotary aircraft equipment that 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 Precaution: 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 applications, as outlined in the National Aerial Pesticide Application Manual, developed by the Federal/Provincial/Territorial Committee on Pest Management and Pesticides.

Do not apply to any body of water. Avoid drifting of spray onto any body of water or other non-target areas.

Coarse sprays are less likely to drift, therefore, avoid combinations of pressure and nozzle type that will result in fine particles (mist). DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty.

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 faceshield 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 any questions, call the manufacturer at 1-212-661-9800 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 the recommended rate in a minimum spray volume of 40 litres per hectare.
- DO NOT apply when wind speed is greater than 16 km/h at flying height at the site of application.
- High humidity and low temperatures (10 – 20 ° C) allow for a better deposition of spray droplets.

SPRAYER AND APPLICATION INFORMATION

The performance of this product depends on correct application. Follow the guidelines given below for optimal application of MISSION 418 EC.

	GROUND APPLICATION	AERIAL APPLICATION
Spray Volume	Minimum 200 litres of water per hectare	40 - 50 litres of water per hectare
Spray Pressure	200 - 300 kPa	100 - 200 kPa
Nozzle Type	110° Flat Fan (XR11004, 4110-20)	Flat Fan 6510-6515 or Hollow Cone (D8-45)
Droplet Size	Medium Spray (300 - 400 microns VMD)	Medium Spray (350 - 400 microns VMD)
Ground Speed	10 km/h	
Nozzle Angle	90° (straight down)	90° (straight down)
Boom Height	40-50 cm above the crop canopy	2-3 m above the crop canopy

Ground Application:

Mixing and Spraying Instructions

- Spray equipment should be thoroughly flushed with clean water before mixing MISSION 418 EC.
- Fill spray tank 1/2 full with clean water. Engage gentle agitation.
- Add the required amount of MISSION 418 EC and agitate thoroughly.
- Continue filling the tank with water until the tank is 9/10 full and, if applicable, add the required amount of tank-mix partner.
- Complete filling the spray tank with water, maintaining agitation during mixing and spraying operations.
- Use nozzle screens no finer than 50 mesh. Keep by-pass line on or near the bottom of the tank to minimize foaming.

Aerial Application:

Mixing and Spraying Instructions

- Spray equipment should be thoroughly flushed with clean water before mixing MISSION 418 EC.
- Fill premix tank 1/2 full with clean water. Engage gentle agitation.
- Add the required amount of MISSION 418 EC and agitate thoroughly.
- Continue filling the tank with water until the tank is 9/10 full and, if applicable, add the required amount of tank-mix partner.
- Complete filling the premix tank with water.
- Maintain gentle agitation during mixing.
- Transfer the premix contents into the aircraft spray tank.
- Maintain sufficient agitation during the mixing and spraying operation to ensure MISSION 418 EC remains in suspension.
- Use nozzle screens no finer than 50 mesh. Keep by-pass line on or near the bottom of the tank to minimize foaming.

Fertilizer:

Mixing and Spraying Instructions

If desired, small amounts of nitrogen may be applied with MISSION 418 EC. The appropriate amount of urea can be dissolved in water and added to the spray tank before adding MISSION 418 EC. The rate of actual nitrogen must not exceed 10 kg/ha.

CAUTION: Excessive nitrogen concentrations may injure the crop.

NOTE: DO NOT add nitrogen when tank-mixing MISSION 418 EC with an herbicide.

NOTE: Do not graze livestock on treated crop.

PEACHES, NECTARINES, PLUMS, AND APRICOTS - SPRAY SCHEDULE		
DISEASE	RATE/HA	REMARKS
Brown Rot Blossom Blight	300 mL	Apply 300 mL of MISSION 418 EC in a minimum of 500 L of water per hectare by ground. Make 1st application at early bloom with a 2nd application at 50% - 75% bloom. If disease conditions persist, make a 3rd application at petal fall.
Fruit Brown Rot	300 mL	Apply no more than 2 applications in the 3 weeks prior to harvest. Apply 300 mL of product in a minimum of 500 L of water per hectare by ground.
Suppression of Black Knot (Plums only)	300 mL	Apply 300 mL of MISSION 418 EC in a minimum of 500 L of water per hectare by ground. Make 1st application at early bloom with a 2nd application at 50% - 75% bloom. If disease conditions persist, make a 3rd application at petal fall.
DO NOT APPLY WITHIN 3 DAYS OF HARVEST. DO NOT REENTER TREATED AREAS WITHIN 3 DAYS OF APPLICATION. IF REQUIRED, INDIVIDUALS MAY REENTER TREATED AREAS WITHIN 3 DAYS OF APPLICATION FOR SHORT TERM TASKS WHICH DO NOT REQUIRE HAND LABOUR IF AT LEAST 4 HOURS HAVE PASSED SINCE APPLICATION AND PROVIDED LONG PANTS, LONG-SLEEVED SHIRTS, AND CHEMICAL-RESISTANT GLOVES ARE WORN.		

SWEET AND SOUR CHERRIES - SPRAY SCHEDULE		
DISEASE	RATE/HA	REMARKS
Brown Rot Blossom Blight	300 mL	Apply 300 mL of MISSION 418 EC in a minimum of 500 L of water per hectare by ground. Make 1st application at early bloom with a 2nd application at 50% - 75% bloom. If disease conditions persist, make a 3rd application at petal fall.
Fruit Brown Rot	300 mL	Apply no more than 2 applications in the 3 weeks prior to harvest. Apply 300 mL of product in a minimum of 500 L of water per hectare by ground.
Cherry Leaf Spot (<i>Blumeriella</i>)	300 mL	Apply a maximum of 3 applications per season for control of Cherry Leaf Spot. Make the 1st application at petal fall. In the 3 weeks prior to harvest make a 2nd and 3rd application at a 7-

SWEET AND SOUR CHERRIES - SPRAY SCHEDULE		
DISEASE	RATE/HA	REMARKS
<i>jaapii</i>)		10 day interval. Do not apply within 3 days of harvest. Apply 300 mL of product in a minimum of 500 L of water per hectare by ground.
Suppression of Black Knot (sour cherries only)	300 mL	Apply 300 mL of MISSION 418 EC in a minimum of 500 L of water per hectare by ground. Make 1st application at early bloom with a 2nd application at 50% - 75% bloom. If disease conditions persist, make a 3rd application at petal fall.
It is recommended that no more than 2 consecutive applications of MISSION 418 EC be made before switching to another fungicide with a different mode of action according to disease management practices.		
APPLY A MAXIMUM OF 5 APPLICATIONS PER SEASON OF MISSION 418 EC TO SWEET AND SOUR CHERRIES. DO NOT APPLY WITHIN 3 DAYS OF HARVEST. DO NOT REENTER TREATED AREAS WITHIN 3 DAYS OF APPLICATION. IF REQUIRED, INDIVIDUALS MAY REENTER TREATED AREAS WITHIN 3 DAYS OF APPLICATION FOR SHORT TERM TASKS WHICH DO NOT REQUIRE HAND LABOUR IF AT LEAST 4 HOURS HAS PASSED SINCE APPLICATION AND PROVIDED LONG PANTS, LONG-SLEEVED SHIRTS, AND CHEMICAL-RESISTANT GLOVES ARE WORN.		

HIGHBUSH BLUEBERRY - SPRAY SCHEDULE		
DISEASE	RATE/HA	REMARKS
Mummyberry (<i>Monilinia vaccinii – corymbosi</i>)	300 mL	Apply 1 st application at or near flower bud swelling; make a 2nd application at leaf bud swelling. Apply by ground only, making no more than two applications per year. In BC only, apply by ground, a 3 rd application at pink bloom and a 4 th application 7 to 10 days later at early bloom, making no more than 4 applications per year. Use a minimum of 200 L of water per hectare.
LAST APPLICATION MUST BE MADE AT LEAST 60 DAYS BEFORE HARVEST.		

LOWBUSH BLUEBERRY - SPRAY SCHEDULE		
DISEASE	RATE/HA	REMARKS
Monilinia Blight	300 mL	Apply 1 st application when flower bud scales first appear and make a 2 nd application 10 days later. Use ground application or aerial application equipment, making no more than two applications per year. Use a minimum of 200 L of water per hectare if applying by ground equipment; use 40 – 50 L of water per hectare if applying by air.
LAST APPLICATION MUST BE MADE AT LEAST 60 DAYS BEFORE HARVEST.		

SASKATOON BERRY - SPRAY SCHEDULE		
DISEASE	RATE/HA	REMARKS
Entomosporium Leaf and Berry Spot, Saskatoon	300 mL	As a foliar spray, apply up to three applications per season. The 1 st application to occur at “white tip”, the 2 nd application at “petal fall”, and the 3 rd application at “green fruit”. Apply

Juniper Rust		300 mL in a minimum of 200 L of water per hectare by ground, applying to runoff.
LAST APPLICATION MUST BE MADE AT LEAST 38 DAYS BEFORE HARVEST.		

CRANBERRY - SPRAY SCHEDULE		
DISEASE	RATE/HA	REMARKS
Cottonball (<i>Monilinia oxycocci</i>)	300 mL	Apply the 1 st application at leaf bud break. Make a 2 nd application 10 – 14 days later, a 3 rd application at early bloom and a 4 th application 10 – 14 days after the 3 rd application. Make no more than four applications per year. Apply product by ground.
LAST APPLICATION MUST BE MADE AT LEAST 45 DAYS BEFORE HARVEST.		

RUTABAGAS - SPRAY SCHEDULE		
DISEASE	RATE/HA	REMARKS
Powdery Mildew	240 mL	Make two applications per season with the 1 st application at 50 days after planting and the 2 nd application 20 days later. Apply to vegetative foliage. Apply 240 mL in a minimum 200 L of water per hectare by ground.
LAST APPLICATION MUST BE MADE AT LEAST 21 DAYS BEFORE HARVEST.		

ASPARAGUS - SPRAY SCHEDULE		
DISEASE	RATE/HA	REMARKS
Rust (<i>Puccinia asparagi</i>)	150 mL	Apply MISSION 418 EC to asparagus ferns in Ontario and Quebec only. Once harvest is complete, make the 1 st application of MISSION 418 EC as soon as fern growth begins, followed by applications at 14 to 21 day intervals. For new, non-harvested plantings, apply MISSION 418 EC when first sign of rust is visible, followed by applications at 14 to 21 day intervals. Apply by ground only, making no more than three applications per year. Use a minimum of 370 L of water per hectare.
LAST APPLICATION MUST BE MADE AT LEAST 8 MONTHS BEFORE HARVEST.		

WESTERN RED CEDAR - SPRAY SCHEDULE		
DISEASE	RATE/HA	REMARKS
Keithia Foliar Blight	300 mL	Apply using ground application equipment every four weeks. Make a maximum of 6 applications per year. Apply 300 mL of MISSION 418 EC in a volume of 1000 L of water per hectare by ground.

KENTUCKY BLUEGRASS FOR SEED PRODUCTION - SPRAY SCHEDULE		
DISEASE	RATE/HA	REMARKS
Powdery Mildew	300 mL	Apply as a foliar spray. Make no more than 2 applications per crop year with the 1 st application at pre-heading and the 2 nd at 50% - 100% heading. Apply in 200 - 300 L/ha of water by

		ground or 40 - 50 L/ha of water by air.
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CANEBERRIES (CROP GROUP 13A; CULTIVARS AND/OR VARIETIES OF RED AND BLACK RASPBERRY, LOGAN BERRY AND BLACKBERRY) - SPRAY SCHEDULE		
DISEASE	RATE/HA	REMARKS
Yellow rust	300 mL	Apply 300 mL of MISSION 418 EC in a minimum of 500 L of water per hectare by ground application at first detection of disease in the field and a second application 14 days later.
It is recommended that no more than 2 consecutive applications of MISSION 418 EC be made before switching to another fungicide with a different mode of action according to disease management practices.		
APPLY A MAXIMUM OF 2 APPLICATIONS PER SEASON OF MISSION 418 EC TO CANEBERRIES. DO NOT APPLY WITHIN 30 DAYS OF HARVEST. DO NOT REENTER TREATED AREAS WITHIN 3 DAYS OF APPLICATION. IF REQUIRED, INDIVIDUALS MAY REENTER TREATED AREAS WITHIN 3 DAYS OF APPLICATION FOR SHORT TERM TASKS WHICH DO NOT REQUIRE HAND LABOUR IF AT LEAST 4 HOURS HAS PASSED SINCE APPLICATION AND PROVIDED LONG PANTS, LONG SLEEVED SHIRTS, AND CHEMICAL RESISTANT GLOVES ARE WORN.		

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 uses described below were developed by persons other than Makhteshim Agan of North America Inc and accepted for registration by Health Canada under the User Requested Minor Use Label Expansion program. Makhteshim Agan of North America Inc itself makes no representation or warranty with respect to performance (efficacy) or crop tolerance (phytotoxicity) claims for this product when used on the crops listed below. Accordingly, the Buyer and User assume all risks related to performance and crop tolerance arising, and agree to hold Makhteshim Agan of North America Inc harmless from any claims based on efficacy or phytotoxicity in connection with the uses described below.

STRAWBERRIES – SPRAY SCHEDULE		
DISEASE	RATE/HA	REMARKS
Leaf Spot (<i>Mycosphaerella fragariae</i>)	300 mL	Apply 300 mL of MISSION 418 EC fungicide per hectare by ground in enough water to ensure thorough coverage. Make 1st application when disease levels are no more than 5%. Apply MISSION 418 EC fungicide at 10 day intervals for control of leaf spot.
It is recommended that no more than 2 consecutive applications of MISSION 418 EC be made before switching to another fungicide with a different mode of action according to disease management practices.		
APPLY A MAXIMUM OF 4 APPLICATIONS PER SEASON OF MISSION 418 EC TO STRAWBERRIES. DO NOT APPLY WITHIN 1 DAY OF HARVEST.		