### Nufarm

Parasol Flowable Fungicide

**SUSPENSION** 

**AGRICULTURAL** 

**COPPER HYDROXIDE** 



**WARNING: EYE IRRITANT** 

KEEP OUT OF REACH OF CHILDREN

READ THE LABEL BEFORE USING

For use in apples, apricots, beans, cherries, cucumbers, hazelnuts (filberts), nectarines, peaches, pears, peppers, potatoes and tomatoes.

# **ACTIVE INGREDIENT:**

Elemental copper, present as copper hydroxide ... 24.4%

REGISTRATION NUMBER 25901 PEST CONTROL PRODUCTS ACT

Net Contents: 1-450 Litres

Nufarm Agriculture Inc. 5101, 333 - 96th Ave NE Calgary, Alberta T3K 0S3 1-800-868-5444

24 HOUR EMERGENCY RESPONSE NUMBER 1-800-424-9300
GENERAL INSTRUCTIONS

Parasol Flowable Fungicide is adaptable to spraying from all types of spray equipment. It can be used in high or low volume spray. No additional surfactants are needed.

The following specific instructions are based on general applications. However, the recommendations of the Provincial Ministry of Agriculture should be closely followed as to timing, frequency and number of sprays per season.

#### RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, please note that Parasol Flowable Fungicide contains a Group M1 fungicide. Any fungal population may contain individuals naturally resistant to Parasol Flowable Fungicide and other Group M1 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 Parasol Flowable Fungicide or other Group M1 fungicides with different groups that control the same pathogens.
- Use tank mixtures with fungicide 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 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 Nufarm Agriculture Inc. if reduced sensitivity of the pathogen to Parasol Flowable 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, 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 Nufarm Agriculture Inc. at 1-800-868-5444 or at www.nufarm.ca.

### **DIRECTIONS FOR USE**

## DO NOT APPLY BY AIR.

DO NOT apply this product in a way that will contact workers or bystanders, either directly or through drift. Only protected handlers may be in the area during application.

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

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

Restricted entry interval (REI) = 48 hrs

Pre-harvest interval (PHI) = 2 Days

When environmental conditions favour disease development, or severe disease pressures exist, apply the higher product rate indicated below.

**APPLE AND PEAR TREES, Fire Blight** (*Erwinia amylovora*), **Bacterial Blight** (*Pseudomonas syringae*): Apply 4.7 litres/ha as a dormant application in sufficient water for complete coverage. Use two applications per year; apply at Silvertip and after harvest with 50% leaf drop.

**APRICOT TREES, Coryneum Blight (***Coryneum carpophilum*): Use 4.5 to 6.7 litres/ha as a dormant application before foliage buds swell.

**BEANS**, **Bacterial Blight**, **Halo** (*Pseudomonas syringae* pv. *phaseolicola*), **Bacterial Blight**, **Common**, (*Xanthomonas campestris* pv. *phaseoli*): For protective sprays, apply first application when plants are 15 cm high. Apply on 7 to 14-day schedule depending on local conditions. Use 2.3 to 3.12 litres/ha depending on disease severity. Do not apply within 2 days of harvest. Do not apply more than 6 treatments per year, with a minimum retreatment interval of 7 days.

CHERRY TREES (SWEET AND SOUR), Bacterial Canker (*Pseudomonas* spp.): Apply 8.8 to 13.1 litres of product per hectare as a dormant spray. Apply by air blast sprayer when 3/4 leaves have fallen. Make a second application in early spring before bud break. Use low rate on small trees, high rate for large trees.

**CUCUMBERS, Angular Leaf Spot** (*Pseudomonas syringae* pv. *lachrymans*): Apply weekly once the plants begin to vine. Use 2.3 to 3.12 litres/ha. Do not apply within 2 days of harvest. Do not apply more than 5 treatments per year, with a minimum retreatment interval of 7 days.

**HAZELNUTS / FILBERTS, Bacterial Blight** (Xanthomonas campestris), **Eastern Filbert Blight** (Anisogramma anomala): Apply 4.4 to 11.4 litres/ha as a dormant spray when 3/4 leaves have fallen and again in early spring before bud set. Use low rate on small trees, high rate for large trees.

**PEACH AND NECTARINE TREES, Coryneum Blight** (*Coryneum carpophilum*), **Leaf Curl** (*Taphrina deformans*): Apply 4.5 to 6.7 litres/ha as a dormant spray before bud swell in the spring or 4.5 to 8.9 litres/ha after leaf fall. Use the higher rate when rainfall is very heavy and disease pressure is high.

**PEPPERS, Bacterial Spot** (*Xanthomonas campestris* pv. *vesicatoria* and *X. vesicatoria*): When disease threatens, apply 2.3 to 3.12 litres/ha at 7 to 14-day intervals depending on disease severity. Do not apply within 2 days of harvest. Do not apply more than 10 treatments per year, with a minimum retreatment interval of 3 days.

**POTATOES, Early Blight** (*Alternaria solani*), **Late Blight** (*Phytophthora infestans*): Apply at 7 to 10-day intervals starting when plants are 15 cm high until harvest. Use Parasol Flowable Fungicide at 0.8 to 1.8 litres/ha, depending on density of foliage, combined with 1.75 to 2.25 kg of Mancozeb (80% active) product per ha. Parasol Flowable Fungicide at 2.4 litres/ha may be applied at vinekill with a desiccant or alone after vinekill, prior to harvest. This late treatment may reduce infection of tubers by the late blight fungus during harvesting. Do not apply within 2 days of harvest. Do not apply more than 10 treatments per year, with a minimum retreatment interval of 5 days.

**TOMATOES**, Bacterial Spot (*Xanthomonas campestris* pv. *vesicatoria*), Bacterial Speck (*Pseudomonas syringae* pv. *tomato*), Bacterial Canker (*Clavibacter michiganensis*) subsp. *michiganensis*), Septoria Leaf Spot (*Septoria lycopersici*), Early Blight (*Alternaria solani*), Late Blight (*Phytophthora infestans*): When disease threatens, apply 2.3 litres/ha at 7 to 10-day intervals, more frequently when disease is severe. Parasol Flowable Fungicide should be combined with 1.75 to 2.25 kg/ha maneb or mancozeb (80% active compound). Do not apply within 2 days of harvest. Do not apply more than 10 treatments per year, with a minimum retreatment interval of 3 days.

### **BUFFER ZONES**

<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 S572.1) medium classification. Boom height must be 60 cm or less above the crop or ground.

<u>Airblast application</u>: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** direct spray above plants to be treated. Turn off outward pointing nozzles at row ends and outer rows. **DO NOT** apply when wind speed is greater than 16 km/h at the application site as measured outside of the treatment area on the upwind side.

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

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 application	Crop		Buffer Zones (meters) Required for the Protection of :				
			Freshwater Habitat of Depths:		Estuarine/Marine Habitats of Depths:		Terrestrial
			Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	Habitat
Field sprayer	Cucumbers		15	5	5	3	0
	Beans, potatoes		15	5	10	4	0
	Tomatoes		20	10	10	5	1
	Peppers		25	10	15	5	1
Airblast	Apricots	Early growth stage	45	35	35	25	0
	Apples, Pears	Early growth stage	45	35	35	25	0
		Late growth stage	35	25	25	20	0
	Peaches Nectarine s (leaf curl)	Early growth stage	45	35	35	25	0
		Late growth stage	35	30	30	20	0
	Hazelnut/ Filbert	Early growth stage	50	45	45	35	1
		Late growth stage	40	35	35	25	1
	Sweet & Sour Cherries	Early growth stage	55	45	45	35	1
		Late growth stage	45	35	35	30	1

For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) 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 buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Buffer Zone Calculator on the Pest Management Regulatory Agency web site.

## **PRECAUTIONS**

# KEEP OUT OF REACH OF CHILDREN. HARMFUL IF INHALED - AVOID BREATHING DUSTS OR SPRAY MISTS CAUSES EYE IRRITATION - DO NOT GET IN EYES

Remove personal protective equipment immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

Remove clothing/personal protective equipment immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

For cleaning/maintaining personal protective equipment, use detergent and hot water. Keep and wash personal protective equipment separately from other laundry.

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

If gloves are required on the label, wash the outside of gloves before removing.

Wear goggles, long pants, a long-sleeved shirt and shoes plus socks during mixing/loading, application, clean-up and repair. In addition, wear chemical-resistant gloves during mixing/loading, clean-up and repair.

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval of 48 hours.

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 inversions, application equipment, and sprayer settings.

Harmful if swallowed.

Avoid contact with skin and eyes.

Do not contaminate food or feed. Do not contaminate any body of water.

### **ENVIRONMENTAL HAZARDS**

TOXIC to birds, small wild mammals, 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.

### **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 centre or doctor for treatment advice.

**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.

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

### TOXICOLOGICAL INFORMATION

Probable mucosal damage may contraindicate use of gastric lavage. Treat symptomatically

## **EMERGENCY TELEPHONE NUMBERS**

For spills or transportation accidents, Chemtrec, 1-800-424-9300. For health or environmental emergencies, ProPharma Group, 1-877-325-1840. For product and use information, Nufarm Agriculture Inc., 1-800-868-5444.

## STORAGE

Store unused product in original container only in a cool, dry, well-ventilated area, out of reach of children and animals. If container or bag is damaged, place the container or bag in a plastic bag. Shovel any spills into plastic bags and seal with tape.

# **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.

2017-0462