# HydroWorxx™ Disease Control CONCENTRATE

COPPER FUNGICIDE

**DOMESTIC** 

**SOLUTION** 

READ THE LABEL BEFORE USING

KEEP OUT OF REACH OF CHILDREN

ACTIVE INGREDIENT: Copper, present as copper octanoate 1.8%

REG. NO. 31826 PCP ACT

NET CONTENTS 100 ml - 10 L

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## **Canadian Agent:**

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Peel back for instructions
Press to reseal

Dormant and growing season liquid copper fungicide. Controls many plant diseases using low concentrations of copper. Biodegradable - Decomposes to a form useful to plants & microbes. Do not apply within one day of harvest.

## **DIRECTIONS FOR USE**

DO NOT apply this product in a way that will contact adults, children or pets, either directly or through drift.

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

DO NOT apply to any body of water. Avoid application of this product when winds are gusty.

## PESTS/SITES AND APPLICATION INSTRUCTIONS

GENERAL USE: For outdoor and greenhouse use only. Unless otherwise stated below, the standard rate for the listed species is 1 part HYDROWORXX Disease Control CONCENTRATE in 50 (2%) to 200 (0.5%) parts water. Spray all plant surfaces thoroughly, not exceeding 100 mL of diluted spray per 1 m²; if necessary, repeat sprays every 7 to 10 days unless otherwise noted below. For best control, begin treatment 2 weeks before disease normally appears or when weather forecasts predict a long period of wet weather. Alternatively, begin treatment when disease first appears and repeat at 7 to 10 day intervals unless otherwise noted below. Apply at the higher rate every 7 days or fewer following heavy rain or when the amount of disease is increasing rapidly. For outdoor flowers and ornamentals, do not exceed 10 applications per year. If possible, time applications so that 12 hours of dry weather follow application. HYDROWORXX Disease Control CONCENTRATE may cause some copper toxicity on some plant species. During excessive moisture and cold, leaf spots can appear on copper-sensitive crop species. If concerned about sensitivity of plants, apply to individual plants or small areas of plants and wait to determine if plant damage occurs prior to treatment of larger areas.

TURF		
Plant	Application Rate and Notes	Diseases Controlled
Turf (lawns)	Use a 0.5% to 2% solution applied at 4.7 - 9.4 L per 100m <sup>2</sup>	Powdery mildew ( <i>Erysiphe graminis</i> )
	Apply HYDROWORXX Disease Control CONCENTRATE when disease first appears, and repeat at 7 to 10 day intervals for a maximum of 15 applications. In frequently diseased areas, prune adjacent trees and shrubs to reduce turf shading and to improve air movement.	

ORNAMENTALS (OUTDOOR AND GREENHOUSE)		
Plant	Application Rate and Notes	Diseases Controlled or Suppressed
Greenhouse and outdoor ornamental shrubs and flowering plants ( such as rose, hollyhock, hydrangea, crape myrtle)	Use a 0.5% to 2% solution applied at 4.7-9.4 L per 100m² Re-apply using 5-10 day intervals.  HYDROWORXX Disease Control CONCENTRATE may cause copper toxicity on some rose varieties. Copper toxicity appears as purple spots. For black spot, use a 1% solution.	Corynespora leaf spot (Corynespora casiicola)— Suppression Powdery mildew (Erysiphe spp.), Rust (Puccinia malvacearum) Bacterial blight (Pseudomonas syringae) Fire blight (Erwinia

Rose	In damp cool conditions (below 18°C), phytotoxicity is likely to occur with the use of HYDROWORXX Disease Control CONCENTRATE	amylovora) Coryneum blight (Thyrostroma carpophilum)  Black spot (Diplocarpon rosae) Powdery mildew (Podosphaera pannosa var. rosae Rust (Phragmidium mucronatum
Crape Myrtle		Cercospora leaf spot( <i>Cercospora</i> <i>lythracearum</i> ) -Suppression

VEGETABLES, FRUITS, NUTS and BERRIES			
Plant	Application Rate and Notes	Diseases Controlled or Suppressed	
Root and Tuber Vegetables (Garden beet, Celeriac, Potatoes, Sugar beet)	Use a 0.5% to 2% solution, applied at 4.7-9.4 L per 100m². Re-apply using 5-10 day intervals.	Early blight (Alternaria solani) on potato Late blight (Phytophthora infestans) on potato Septoria leaf spot (Septoria lycopersici) on potato Septoria (late) blight (Septoria apiicola) on celeriac Cersospora leaf spot (Cercospora beticola) on beet and sugar beet	
Bulb Vegetables (Chives, Garlic, Leek, Onion, Shallot)	Use a 0.5% to 2% solution, applied at 4.7-9.4 L per 100m <sup>2</sup> . Re-apply using 5-10 day intervals.	Downy mildew (Peronospora destructor) Botrytis leaf blight (Botrytis squamosa) Soft rot (Erwinia carotovora subsp. carotovora)	
Celery	Use a 0.5% to 2%, applied at 4.7-9.4 L per 100m <sup>2</sup> . Re-apply using 5-10 day intervals. Use higher rate when disease pressure is high.	Cercospora (early) blight (Cercospora apiicola) Septoria (late) blight (Septoria apiicola)	
Brassica Leafy Vegetables (Bok choy, Broccoli, Brussels sprouts, Cabbage, Cauliflower, Kale, Kohlrabi, Mustard, Pak-choi)	Use a 0.5% to 2%, applied at 4.7-9.4 L per 100m <sup>2</sup> . Re-apply using 5-10 day intervals.  For Brussels sprouts, do not exceed 10 applications per year.	Black rot (Xanthomonas campestris pv. campestris) - Suppression	
Legumes (Bean, Pea, Soybean)	Use a 0.5% to 2% solution, applied at 4.7-9.4 L per 100m <sup>2</sup> . Re-apply using 5-10 day intervals.	Ascochyta blight ( <i>Ascochyta</i> pisi) Halo blight ( <i>Pseudomonas</i>	

Fruiting Vegetables (Eggplant, Peppers, Tomatoes)	Use a 0.5% to 2% solution, applied at 4.7-9.4 L per 100m². Re-apply using 5-10 day intervals.	syringae pv. phaseolicola) Common blight (Xanthomonas campestris pv phaseoli) Brown spot (Pseudomonas syringae pv. syringae) Powdery mildew (Erysiphe spp.) Rust (Uromyces appendiculatus) Early blight (Alternaria solani) Late blight (Phytophthora infestans) Septoria leaf spot (Septoria lycopersici) Bacterial speck (Pseudomonas syringae) Bacterial leaf spot (Xanthomonas campestris pv vesicatoria) Bacterial canker (Clavibacter michiganensis)
Cucurbits (Cucumbers, Cantaloupe, Melon, Squash, Pumpkin, Zucchini)	Use a 0.5% to 2% solution, applied at 4.7-9.4 L per 100m². Re-apply using 5-10 day intervals.	Powdery mildew (Podosphaera xanthii; Erysiphe cichoracearum) Downy mildew (Pseudoperonospora cubensis) Alternaria leaf blight (Alternaria cucumerina) Anthracnose (Colletotrichum orbiculare) Angular leaf spot (Pseudomonas syringae pv. orbiculare) Bacterial wilt (Erwinia tracheiphila) Septoria leaf spot (Septoria cucurbitacearum)

Pome Fruit Trees (Apple, Pear, Quince)	Use a 0.5% to 2% solution, applied at 4.7-9.4 L per 100m². Re-apply using 5-10 day intervals. Do not exceed 10 applications per year.  Do not exceed the 1% rate for apple varieties susceptible to russeting.  For fireblight control, apply HYDROWORXX Disease Control CONCENTRATE in the dormant period, during bloom, or in-season cover spray applications.  NOTICE: HYDROWORXX Disease Control CONCENTRATE as used in this recommendation may cause russeting of light coloured apple varieties. Use a 0.8% solution when fruit is present.	Fire blight ( <i>Erwinia</i> amylovora) Scab ( <i>Venturia Inaequalis, V.</i> pirina)
Stone Fruit Trees (Apricot, Cherry, Nectarine, Peach, Plum)	Use a 0.5% to 2% solution applied at 4.7-9.4 L per 100m². Re-apply using 5-10 day intervals.  For peaches, do not exceed 5 applications per year.  For nectarines, do not exceed 10 applications per year.  For bacterial canker, apply as a dormant spray as buds begin to swell, repeating at the bud burst stage, and weekly thereafter as needed, up to six sprays. In the fall spray again at 10% and 80% leaf fall. For brown rot blossom blight apply full cover spray at delayed dormant (bud swell), popcorn, full bloom and petal fall stages. During wet weather additional bloom sprays may be necessary.  Apply to leaf and fruit spot, Coryneum blight, and peach leaf curl as a dormant spray in late fall during a period of dry weather.	Peach leaf curl ( <i>Taphrina deformans</i> ) Bacterial spot ( <i>Xanthomonas campestris</i> pv. pruni) Coryneum blight ( <i>Thyrostroma carpophilum</i> ) Bacterial canker ( <i>Pseudomonas syringae</i> pv. syringae, morsprunorum) Brown rot ( <i>Monilinia fructicola</i> ) Leaf and fruit spot ( <i>Blumeriella jaapii</i> )
Small Fruits (Blackberry, Blueberry, Currant, Gooseberry, Grape, Raspberry, Strawberry)	Use a 0.5% to 2% solution, applied at 4.7-9.4 L per 100m².  Apply at the start of flowering and continue every 7 to 10 days. Do not	Powdery mildew ( <i>Erysiphe necator</i> ) on grape Powdery mildew ( <i>Podosphaera aphanis</i> ) on strawberry Downy mildew ( <i>Plasmopara</i>

	apply within 1 day of harvest.  For strawberries, spray 1 month after planting (or before flowering on established plants) and twice more at 7 day intervals.	viticola) on grape Rust (Cronartium ribicola) on currant and gooseberry Bacterial blight (Pseudomonas syringae pv. Syringae) on raspberry, blackberry, and blueberry
	For grapes, do not mix HYDROWORXX Disease Control CONCENTRATE with lime. Certain Vinifera and French Hybrid varieties may be sensitive to copper sprays resulting in marginal leaf burn. Make test sprays before spraying these varieties	
Filbert, Hazelnut	Use a 0.5% to 2% solution, applied at 4.7-9.4 L per 100m <sup>2</sup> . Re-apply using 5-10 day intervals.	Bacterial blight (Xanthomonas campestris pv. corylina) Eastern filbert blight (Anisogramma anomala)
Walnut	Use a 0.5% to 2%, applied at 4.7-9.4 L per 100m <sup>2</sup> . Re-apply using 5-10 day intervals.	Bacterial blight (Xanthomonas campestris pv. juglandis)
Parsley	Use a 0.5% to 2% solution, applied at 4.7-9.4 L per 100m². Re-apply using 5-10 day intervals.	Leaf spot (Septoria petroselini)

Crop or Plant	Application Rate and Notes	Diseases Controlled or Suppressed
Celery	Use a 0.5% to 2% solution applied at 4.7-9.4 L per 100m². Re-apply using 5-10 day intervals. Use higher rate when disease pressure is high.	Cercospora (early) blight (Cercospora apiicola) Septoria (late) blight (Septoria apiicola)
Crop Group 6: Legumes (Bean, Pea, Soybean)	Use a 0.5% to 2% solution applied at 4.7-9.4 L per 100m <sup>2</sup> . Re-apply using 5-10 day intervals.	Ascochyta blight (Ascochyta pisi) Halo blight (Pseudomonas syringae pv. phaseolicola) Common blight (Xanthomonas campestris pv. phaseoli) Brown spot (Pseudomonas syringae pv. syringae) Powdery mildew (Erysiphe spp.) Rust (Uromyces appendiculatus)
Crop Group 8: Fruiting Vegetables (Eggplant, Pepper, Tomatoes)	Use a 0.5% to 2% solution applied at 4.7-9.4 L per 100m <sup>2</sup> . Re-apply using 5-10 day intervals.	Early blight (Alternaria solani) Late blight (Phytophthora infestans) Septoria leaf spot (Septoria lycopersici) Bacterial speck (Pseudomonas syringae)

		Bacterial leaf spot (Xanthomonas campestris pv vesicatoria) Bacterial canker (Clavibacter michiganensis pv. michiganensis)
Crop Group 9: Cucurbits (Cucumbers, Cantaloupe, Melon, Squash, Pumpkin, Zucchini)	Use a 0.5% to 2% solution applied at 4.70-9.4 L per 100m <sup>2</sup> . Re-apply using 5-10 day intervals.	Powdery mildew (Podosphaera xanthii; Erysiphe cichoracearum) Downy mildew (Pseudoperonospora cubensis) Alternaria leaf blight (Alternaria cucumerina) Anthracnose (Colletotrichum orbiculare) Angular leaf spot (Pseudomonas syringae pv. orbiculare) Bacterial wilt (Erwinia tracheiphila) Septoria leaf spot (Septoria cucurbitacearum)

#### **PRECAUTIONS**

PREVENT ACCESS BY UNAUTHORIZED PERSONNEL. KEEP OUT OF REACH OF CHILDREN. Use only in well ventilated areas. For good hygiene practice, wear gloves when handling this product.

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

DO NOT allow adults, children or pets to enter the treated area until sprays have dried.

## **TOXICOLOGICAL INFORMATION**

Treat symptomatically.

## **ENVIRONMENTAL HAZARDS**

TOXIC to birds, small wild mammals and aquatic organisms. 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 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.

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

## **STORAGE**

Store in original container in a cool, dry, well ventilated area. To prevent contamination store this product away from food or feed. Protect from freezing.

## **DISPOSAL/DECONTAMINATION**

DO NOT reuse the empty containers. Dispose in household garbage. Unused or partially used products should be disposed at provincially or municipally designated hazardous waste disposal sites.

#### **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.

Sold by: Neudorff USA, Inc. 875 Mahler Road, Suite 260 Burlingame, CA 94010

Marketing statements that may or may not be present on the final product label or labels:

- Controls powdery mildew & other listed diseases
- Biodegradable
- Controls many plant diseases using low concentrations of copper
- -Shake Well Before Using
- HydroWorxx<sup>®</sup> is a registered trademark of W. Neudorff GmbHKG.
- For questions, call troll-free 1-844-HYDROWORXX

