

Doktor Doom Formula 420 Fungicide Ready-to-Use (RTU)

Copper Fungicide

DOMESTIC

Solution

READ THE LABEL AND BOOKLET BEFORE USING

KEEP OUT OF REACH OF CHILDREN

ACTIVE INGREDIENT:

Copper, present as copper octanoate and related copper compounds ... 0.0178%

REG. NO. 32839 PCP ACT

NET CONTENTS 100 mL - 1 L

753146 AB Ltd o/a Ultrasol Industries
10755-69 Ave.
Edmonton, Alberta
T6H 2C9
780-432-6535

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.

PRECAUTIONS

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.

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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 application rate for the listed species is 1 L of Doktor Doom Formula 420 Fungicide Ready-to-Use (RTU) per 10 m². Spray all plant surfaces thoroughly; 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. 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.

Doktor Doom Formula 420 Fungicide Ready-to-Use (RTU) 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)	Apply 1 L product/10 m ² Apply Doktor Doom Formula 420 Fungicide Ready-to-Use (RTU) 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.	Powdery mildew (<i>Erysiphe graminis</i>)

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)	Apply 1 L product/10 m ² . Re-apply using 5-10 day intervals.	Corynespora leaf spot (<i>Corynespora asiicola</i>) – Suppression Powdery mildew (<i>Erysiphe</i> spp.), Rust (<i>Puccinia malvacearum</i>) Bacterial blight (<i>Pseudomonas syringae</i>) Fire blight (<i>Erwinia amylovora</i>) Coryneum blight (<i>Thyrostroma</i>

		<i>carpophilum)</i>
Rose	Doktor Doom Formula 420 Fungicide Ready-to-Use (RTU) may cause copper toxicity on some rose varieties. Copper toxicity appears as purple spots.	Black spot (<i>Diplocarpon rosae</i>) Powdery mildew (<i>Podosphaera pannosa</i> var. <i>rosae</i>) Rust (<i>Phragmidium mucronatum</i>)
Crape Myrtle	In damp cool conditions (below 18°C), phytotoxicity is likely to occur with the use of Doktor Doom Formula 420 Fungicide Ready-to-Use (RTU).	Cercospora leaf spot(<i>Cercospora 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)	Apply 1 L product/10 m ² Re-apply using 5-10 day intervals.	Early blight (<i>Alternaria solani</i>) on potato Late blight (<i>Phytophthora infestans</i>) on potato Septoria leaf spot (<i>Septoria lycopersici</i>) on potato Septoria (late) blight (<i>Septoria apiicola</i>) on celeriac Cercospora leaf spot (<i>Cercospora beticola</i>) on beet and sugar beet
Bulb Vegetables (Chives, Garlic, Leek, Onion, Shallot)	Apply 1 L product/10 m ² Re-apply using 5-10 day intervals.	Downy mildew (<i>Peronospora destructor</i>) Botrytis leaf blight (<i>Botrytis squamosa</i>) Soft rot (<i>Erwinia carotovora</i> subsp. <i>carotovora</i>)
Celery	Apply 1 L product/10 m ² Re-apply using 5-10 day intervals.	Cercospora (early) blight (<i>Cercospora apiicola</i>) Septoria (late) blight (<i>Septoria apiicola</i>)
Brassica Leafy Vegetables (Bok choy, Broccoli, Brussels sprouts, Cabbage, Cauliflower, Kale, Kohlrabi, Mustard, Pak-choi)	Apply 1 L product/10 m ² Re-apply using 5-10 day intervals.. For Brussels sprouts, do not exceed 10 applications per year.	Black rot (<i>Xanthomonas campestris</i> pv. <i>campestris</i>) - Suppression

Legumes (Bean, Pea, Soybean)	Apply 1 L product/10 m ² Re-apply using 5-10 day intervals.	Ascochyta blight (<i>Ascochyta pisi</i>) Halo blight (<i>Pseudomonas syringae</i> pv. <i>phaseolicola</i>) Common blight (<i>Xanthomonas campestris</i> pv. <i>phaseoli</i>) Brown spot (<i>Pseudomonas syringae</i> pv. <i>syringae</i>) Powdery mildew (<i>Erysiphe</i> spp.) Rust (<i>Uromyces appendiculatus</i>)
Fruiting Vegetables (Eggplant, Peppers, Tomatoes)	Apply 1 L product/10 m ² Re-apply using 5-10 day intervals.	Early blight (<i>Alternaria solani</i>) Late blight (<i>Phytophthora infestans</i>) Septoria leaf spot (<i>Septoria lycopersici</i>) Bacterial speck (<i>Pseudomonas syringae</i>) Bacterial leaf spot (<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i>) Bacterial canker (<i>Clavibacter michiganensis</i> pv. <i>michiganensis</i>)
Cucurbits (Cucumbers, Cantaloupe, Melon, Squash, Pumpkin, Zucchini)	Apply 1 L product/10 m ² Re-apply using 5-10 day intervals.	Powdery mildew (<i>Podosphaera xanthii</i> ; <i>Erysiphe cichoracearum</i>) Downy mildew (<i>Pseudoperonospora cubensis</i>) Alternaria leaf blight (<i>Alternaria cucumerina</i>) Anthracnose (<i>Colletotrichum orbiculare</i>) Angular leaf spot (<i>Pseudomonas syringae</i> pv. <i>orbiculare</i>) Bacterial wilt (<i>Erwinia tracheiphila</i>) Septoria leaf spot (<i>Septoria cucurbitacearum</i>)
Pome Fruit Trees (Apple, Pear, Quince)	Apply 1 L product/10 m ² Re-apply using 5-10 day intervals. Do not exceed 10 applications per year. For fire blight control, apply Doktor Doom Formula 420 Fungicide Ready-to-Use (RTU) in the dormant period, during bloom, or in-season cover spray applications. Do not apply to light-skinned apples after fruit has formed or russetting may occur.	Fire blight (<i>Erwinia amylovora</i>) Scab (<i>Venturia Inaequalis</i> , <i>V pirina</i>)
Stone Fruit Trees	Apply 1 L product/10 m ²	Peach leaf curl (<i>Taphrina deformans</i>)

<p>(Apricot, Cherry, Nectarine, Peach, Plum, Necta-plum)</p>	<p>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.</p>	<p>Bacterial spot (<i>Xanthomonas campestris</i> pv. <i>pruni</i>) Coryneum blight (<i>Thyrostroma carpophilum</i>) Bacterial canker (<i>Pseudomonas syringae</i> pv. <i>syringae</i>, <i>morsprunum</i>) Brown rot (<i>Monilinia fructicola</i>) Leaf and fruit spot (<i>Blumeriella jaapii</i>)</p>
<p>Small Fruits (Blackberry, Blueberry, Currant, Gooseberry, Grape, Raspberry, Strawberry)</p>	<p>Apply 1 L product/10 m² Apply at the start of flowering and continue every 7 to 10. Do not 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. For grapes, do not mix Doktor Doom Formula 420 Fungicide Ready-to-Use (RTU) with lime. Certain <i>Vitis vinifera</i> and French hybrid varieties may be sensitive to copper sprays resulting in marginal leaf burn. Make test sprays before spraying these varieties</p>	<p>Powdery mildew (<i>Erysiphe necator</i>) on grape Powdery mildew (<i>Podosphaera aphanis</i>) on strawberry Downy mildew (<i>Plasmopara viticola</i>) on grape Rust (<i>Cronartium ribicola</i>) on currant and gooseberry Bacterial blight (<i>Pseudomonas syringae</i> pv. <i>Syringae</i>) on raspberry, blackberry and blueberry</p>

Filbert, Hazelnut	Apply 1 L product/10 m ² Re-apply using 5-10 day intervals.	Bacterial blight (<i>Xanthomonas campestris</i> pv. <i>corylina</i>) Eastern filbert blight (<i>Anisogramma anomala</i>)
Walnut	Apply 1 L product/10 m ² Re-apply using 5-10 day intervals.	Bacterial blight (<i>Xanthomonas campestris</i> pv. <i>juglandis</i>)
Parsley	Apply 1 L product/10 m ² Re-apply using 5-10 day intervals.	Septoria leaf spot (<i>Septoria petroselini</i>)

GREENHOUSE FOOD CROPS		
Crop or Plant	Application Rate and Notes	Diseases Controlled or Suppressed
Celery	Apply 1 L product/10 m ² Re-apply using 5-10 day intervals.	Cercospora (early) blight (<i>Cercospora apiicola</i>) Septoria (late) blight (<i>Septoria apiicola</i>)
Legumes (Bean, Pea, Soybean)	Apply 1 L product/10 m ² Re-apply using 5-10 day intervals.	Ascochyta blight (<i>Ascochyta pisi</i>) Halo blight (<i>Pseudomonas syringae</i> pv. <i>phaseolicola</i>) Common blight (<i>Xanthomonas campestris</i> pv. <i>phaseoli</i>) Brown spot (<i>Pseudomonas syringae</i> pv. <i>syringae</i>) Powdery mildew (<i>Erysiphe</i> spp.) Rust (<i>Uromyces appendiculatus</i>)
Fruiting Vegetables (Eggplant, Pepper, Tomatoes)	Apply 1 L product/10 m ² Re-apply using 5-10 day intervals.	Early blight (<i>Alternaria solani</i>) Late blight (<i>Phytophthora infestans</i>) Septoria leaf spot (<i>Septoria lycopersici</i>) Bacterial speck (<i>Pseudomonas syringae</i>) Bacterial leaf spot (<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i>) Bacterial canker (<i>Clavibacter michiganensis</i> pv. <i>michiganensis</i>)
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