

# FUNG-ONIL™ MULTI-PURPOSE FUNGICIDE

**CONTROLS:** LEAF SPOTS, RUST, BLIGHTS, FRUIT ROTS, MILDEWS, SCAB, MOLDS AND OTHER LISTED PLANT DISEASES.

**USE ON:** FLOWERS, SHRUBS, SHADE TREES, FRUIT, VEGETABLES.

SELLER WARRANTS THAT THIS PRODUCT COMPLIES WITH THE SPECIFICATIONS EXPRESSED IN THIS LABEL. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, SELLER MAKES NO OTHER WARRANTIES, AND DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY AND FITNESS FOR THE INTENDED PURPOSE. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, SELLER'S LIABILITY OR DEFAULT, BREACH OR FAILURE UNDER THIS LABEL SHALL BE LIMITED TO THE AMOUNT OF THE PURCHASE PRICE. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, SELLER SHALL HAVE NO LIABILITY FOR CONSEQUENTIAL DAMAGES.

**READ ENTIRE LABEL AND USE STRICTLY IN ACCORDANCE WITH  
PRECAUTIONARY STATEMENTS AND DIRECTIONS.**

**NOTICE:** This product contains Chlorothalonil, a chemical known to the State of California to cause cancer.

Store and transport in an upright position.

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Distributed by  
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## DIRECTIONS FOR USE

### General Precautions and Restrictions

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. **DO NOT** allow people or pets to enter treated areas until sprays have dried or dusts have settled. **DO NOT** apply this product in a way that will contact other persons, or pets, either directly or through drift. Only protected handlers may be in the area during application. **DO NOT** apply this product through any type of irrigation system.

Do not use on home lawns and turf sites associated with apartment buildings, daycare centers, playgrounds, recreational park athletic fields, athletic fields located on or next to schools (ie., elementary, middle and high schools), campgrounds, churches, and theme parks.

Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use in small vegetable or fruit gardens, on plants intended for aesthetic purposes or climatic modification and being grown in exterior landscapes, ornamental gardens or parks.

### Mixing, Loading and Applying

This product is a liquid concentrate that readily mixes with water and can be used in a tank-type manually operated or power sprayer.

This product is highly effective for the control of a broad spectrum of vegetable, fruit and ornamental plant diseases when it is used according to the directions on this label. Thorough uniform coverage of plant surfaces is essential for good disease control. Shake well before using. Mix appropriate amount with water and use at once.

### GARDEN VEGETABLE DISEASES

Apply this product at the rate indicated for each garden crop for the disease to be controlled, by mixing in one gallon of water to cover approximately 200 square feet (10 ft. x 20 ft.) of planted crop. Repeat applications at intervals specified. Use the 7 day schedule during severe disease conditions or wet weather. Do not apply closer to harvest than the indicated **Preharvest Interval (PHI)** for each type of crop. Do not apply more than the specified amount of this product per 200 sq. ft. of garden area per year for each crop type.

**Note:** Avoid spraying plants during extremely hot and sunny weather. Do not apply to wilted plants. Do not graze treated areas or feed treated plant parts to livestock.

tsp. = teaspoonful (1/6 fluid ounce)

<b>CROP</b>	<b>PHI (DAYS)</b>	<b>DISEASES</b>	<b>RATE PER 200 SQ. FT.</b>	<b>APPLICATION DIRECTIONS</b>
Bean (Snap)	7	Rust Botrytis blight (gray mold)	2 ¾ tsp. Per Application, 11 tsp. Per Year	Begin applications during early bloom stage or when disease first threatens and repeat at 7 day intervals.
Beans (Dry)	14	Rust, Anthracnose, Downy mildew, Cercospora leaf spot (blackeye only), Ascochyta blight	2 tsp. Per Application, 8 tsp. Per Year	Begin applications during early bloom stage and repeat at 7 to 10 day intervals. For use only on beans to be harvested dry with pods removed.
Cabbage, Chinese Cabbage (tight-headed varieties only), Cauliflower, Broccoli, Chinese Broccoli, Brussels Sprouts	7	Alternaria leaf spot, Downy mildew, Ring Spot	2 tsp. Per Application, 15 tsp. Per Year	Begin applications after transplants are set in field, or shortly after emergence of field-seeded crop, or when conditions favor disease development. Repeat at 7 to 10 day intervals.
Carrot	0	Cercospora (Early) blight, Alternaria (Late) blight	2 tsp. Per Application, 18 tsp. Per Year	Start applications when disease threatens and repeat at 7 to 10 day intervals.
Celery	7	Cercospora (Early) blight, Septoria (Late) blight, Basal stalk rot (Rhizoctonia solani)	2 ¾ tsp. Per Application, 22 tsp. Per Year	Start applications shortly after crop emergence or when transplants are set in the field. Re-apply at 7 day intervals.
Corn (sweet)	14	Helmintosporium leaf blights, Rust	2 tsp. Per Application, 11 tsp. Per Year	Begin applications when conditions favor disease development and repeat at 7 day intervals.

CROP	PHI (DAYS)	DISEASES	RATE PER 200 SQ. FT.	APPLICATION DIRECTIONS
Cucurbits: Cucumber, Cantaloupe, Muskmelon, Honeydew melon, Watermelon, Squash, Pumpkin	0	Anthracnose, Downy mildew, Target spot Cercospora leaf spot, Gummy stem blight (black rot), Alternaria leaf blight, Scab, Powdery mildew (Sphaerotheca only)	2 ¾ tsp. Per Application,  19 tsp. Per Year	Begin applications when plants are in first true leaf stage or when conditions are favorable for disease development. Repeat applications at 7 day intervals. Note: Spraying mature watermelons may result in sunburn of the upper surface of the fruit. DO NOT apply this product to watermelons when any of the following conditions are present: 1. Intense heat and sunlight; 2. Drought conditions; 3. Poor vine canopy; 4. Other crop and environmental conditions which may be conducive to increased natural sunburn. DO NOT combine this product with anything except water for application to watermelons unless your prior use has shown the combination to be non-injurious to watermelons under your conditions of use.
Onion (dry bulb), Garlic	7	Botrytis leaf blight or blast, Purple blotch	2 ¾ tsp. Per Application,  18 tsp. Per Year	This product is recommended for use with disease monitoring systems which adjust fungicide rates and frequency of application according to disease hazard. Apply as follows: Low Disease Hazard & Prior to Infection, use 1 tsp. per acre. Frequency: 10 days. Low Disease Hazard & Some Disease Present, use 2 tsp. per acre. Frequency: 7 to 10 days. High Disease Hazard, use 2 ¾ tsp. per acre. Frequency: 7 days.

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Onion (dry bulb), Garlic	7	Neck Rot	2 ¾ tsp. Per Application, 18 tsp. Per Year	For suppression of neck rot (Botrytis spp.) during storage, make a minimum of three weekly applications prior to lifting.
Onion (green bunching), Leek, Shallot	14 (green onion, leek, shallot)	Botrytis leaf blight or blast, Purple blotch, Downy mildew (suppression)	2 ¾ tsp. Per Application, 8 tsp. Per Year	Begin applications prior to favorable infection periods, and repeat at 7 to 10 day intervals for as long as conditions favor disease. Use the high rate and a 7 day schedule of applications when heavy dew or rain persist. Do not apply more than 3 times per season. If additional disease control is needed before harvest, use another registered fungicide.
Parsnip	10	Alternaria leaf spot, Downy mildew, Anthracnose, Botrytis blight (gray mold), Bottom rot (Rhizoctonia)	2 tsp. Per Application, 7 tsp. Per Year	Make the first application at the first sign of disease or when conditions are favorable for infection. Continue applications on a 7 to 10 day schedule.
Potato	7	Late blight, Early blight, Botrytis vine rot	1 ½ tsp. Per Application, 14 tsp. Per Year	Begin applications at the low rate when vines are first exposed and leaf withness occurs. Repeat applications at 7 to 10 day intervals. Use the highest rate and shortest interval when plants are rapidly growing and disease conditions are severe.

CROP	PHI (DAYS)	DISEASES	RATE PER 200 SQ. FT.	APPLICATION DIRECTIONS
Tomato	0	<p>FOLIAGE (apply every 7-10 days): Early blight, Late blight, Gray leaf spot, Gray leaf mold, Septoria leaf spot, Target spot</p> <p>FRUIT (apply every 7-14 days beginning at fruit set): Anthracnose, Alternaria fruit rot (black mold), Botrytis gray mold, Late blight fruit rot, Rhizoctonia fruit rot</p>	<p>2 ½ tsp. Per Application,  18 tsp. Per Year</p>	<p>Begin applications when dew or rain occur and disease threatens. Use the highest rate and shortest interval specified when disease conditions are severe. This product may be combined in the spray tank with EPA-registered pesticide products that claim copper as the active ingredient and are labeled for control of bacterial diseases of tomatoes. Check the copper manufacturer's label for specific instructions, precautions and limitations prior to mixing with this product.</p>

### ORNAMENTAL GARDEN PLANTS

Apply this product at a rate of 2 ¼ teaspoons per gallon, or 3 Tablespoons (1 ½ fluid ounces) per 4 gallons of water unless other directions are given in the tables below. Apply enough diluted spray per acre to provide thorough coverage of all plant parts that are intended to be protected from disease, generally ranging from ½ to 3 gallons per 1,000 square feet of garden area. Repeat applications at 7 to 14 day intervals until conditions are no longer favorable for disease. During periods when conditions favor severe disease incidence, generally cloudy or wet weather, apply this product at 7 day intervals. **DO NOT apply more than a total of 37 fluid ounces of this product (0.84 lbs chlorothalonil active ingredient) per 1,000 sq. ft. per growing season on field-grown ornamentals.**

Fruits and other structures which may be borne on treated plants **MUST NOT BE EATEN.**

This product may be used in greenhouses. DO NOT use mistblowers or high pressure spray equipment when making applications of this product in greenhouses.

This product is recommended for control of fungal diseases referred to by numbers in parentheses following each type of ornamental plant. The user should test for possible phytotoxic responses, using each type of ornamental plant. The user should test for possible phytotoxic responses, using recommended rates on each type of ornamental plant on a small area prior to widespread use. Applications made during bloom may damage flowers and/or fruits.

### ORNAMENTALS RECOMMENDED FOR TREATMENT WITH THIS PRODUCT

Broadleaf Shrubs and Trees		
Andromeda ( <i>Pieris</i> ) (4)	Flowering almond (1,2)	Oregon-grape ( <i>Mahonia</i> ) (6)
Ash ( <i>Fraxinus</i> ) (1)	Flowering cherry (1,2)	Red-tip ( <i>Photinia</i> ) (1)
Aspen (1)	Flowering peach (1,2)	Poplar (1)
Azalea (1,2,4)	Flowering plum (1,2)	Privet ( <i>Ligustrum</i> ) (1)
Buckeye, Horsechestnut (1)	Flowering quince (1,2)	Rhododendron (1,2,4)
Camellia (2)	Hawthorn (1,6)	Sand cherry (1,2)
Cherry-laurel (1)	Holly (1)	Sequoia (1)
Crabapple (1,6)	Lilac (5)	Spirea (1)
Dogwood (1)	Magnolia (1)	Sycamore, Planetree (1)
Eucalyptus (3)	Maple (1)	Viburnum (5)
Euonymus (1)	Mountain laurel (1)	Walnut ( <i>Juglans</i> ) (1)
Firethorn ( <i>Pyracantha</i> ) (1)	Oak (red group only) (1,7)	

Flowering <sup>a</sup> Plants and Bulbs				
Arabian violet (2)	Daffodil (1)	Hydrangea	Narcissus (1)	Rose <sup>c</sup> (1)
Begonia (1)	Daisy (1)	(foliage only) (1,6)	Pansy (1)	Statice (1)
Carnation (1,2)	Geranium (1,6)	Iris (1,2)	Petunia (1,4)	Tulip (1)
Chrysanthemum (1,2)	Gladiolus (1,2)	Lily (1)	Phlox (1)	Zinnia (1,5)
Crocus (1)	Hollyhock (6)	Marigold (1)	Poinsettia <sup>b</sup> (1)	

a/Avoid applications during bloom period on plants where flower injury is unacceptable.  
 b/Discontinue applications prior to bract formation; phytotoxicity is possible on the bracts.  
 c/Use 1 ½ Tbs. of this product per 4 gallons of water.

## Diseases controlled with this product:

**1. Leafspots & Foliar Blights:** Actinopelte leafspot, Alternaria leafspot or leaf blight, Anthracnose (*Gnomonia*, *Glomerella*, *Colletotrichum*, *Discula*) blights, Black spot (*Diplocarpon*), Botrytis blights, Cephalosporium leafspot, Cercospora leafspot, Cercosporidium leafspot, Shothole (*Stigmina*), Corynespora stem & leafspots, Curvularia leafspot, Dactylaria leafspot, Didymellina leafspot, Drechslera (*Bipolaris*) leafspots, inkspot, Fabraea (*Entomosporium*) leafspot, Fusarium (*Gibberella*) leafspot, Gloeosporium black leafspot, Marssonina leafspot, Monilinia blossom blight, twig blight, Mycosphaerella ray blight, Myrothecium leafspot, brown rot, Phyllosticta leafspot, Ramularia leafspot, Rhizoctonia web blight, Scab (*Venturia*), Septoria leafspot, Sphaeropsis leafspot, Stagonospora leaf scorch, Tan leafspot (*Curvularia*), Volutella leaf blight

**2. Flower Spots & Blights:** Botrytis flower spot, flower blight, Curvularia flower spot, Monilinia blossom blight, Ovulinia flower blight, Rhizopus blossom blight, Sclerotinia flower blight

**3. Cylindrocladium stem canker**

**4. Phytophthora leaf blight, dieback**

**5. Powdery mildews:** *Erysiphe cichoracearum*, *Sphaerotheca fuliginea*, *Microsphaera* spp.

**6. Rusts:** *Gymnosporangium* spp., *Pucciniastrum hydrangeae*, *Puccinia* spp.

**7. Taphrina blister**

## **FRUIT AND NUT TREE DISEASES**

Apply this product in sufficient water to obtain uniform coverage of tree canopy, including the undersides of leaves, to the point of spray runoff. Mix the indicated rate of this product into each 4 gallons of water to be used for each application, generally sufficient to treat 200 square feet. Do not apply closer to harvest than the indicated **Preharvest Interval (PHI)** for each type of crop.

Note: Avoid spraying plants during extremely hot and sunny weather. **DO NOT apply this product within one week before or after application of oil or an oil-based pesticide.** Do not graze treated areas or feed treated plant parts to livestock.



tsp. = teaspoonful (1/6 fluid ounce)

<b>Crop</b>	<b>PHI (days)</b>	<b>Diseases</b>	<b>RATE PER 4 GALLONS</b>	<b>Application Directions</b>
Blueberry	42	Mummy Berry, Anthracnose	3 ½ tsp. Per Application, 10 ½ tsp. Per Year	Begin applications at budbreak (green tip). Repeat applications until early bloom at 10 day intervals. DO NOT apply after early bloom, otherwise phytotoxicity may occur to the developing fruit.
Filberts (Hazelnuts)	120	Eastern filbert blight	3 ½ tsp. Per Application, 10 ½ tsp. Per Year	Begin applications at leaf bud break and repeat at 2 to 4 week intervals. Based on available residue data, use of this product on filberts is restricted to Oregon.
Papaya	14	Alternaria fruit spot, Anthracnose, Stem end rot	2 ¾ tsp. Per Application, 8 tsp. Per Year	Begin treatment when conditions favor development of disease and continue treatments at 14 day intervals until weather conditions no longer favor disease development.
Passion Fruit (Hawaii only)	7	Alternaria fruit and leaf spot (brown spot)	2 tsp. Per Application, 9 tsp. Per Year	Apply in sufficient water to obtain adequate coverage of fruit and leaves. Begin applications before fruit spots appear (April to July) and re-apply at 14 day intervals until weather conditions no longer favor disease development.
Stone Fruits: Peach, Nectarine, Apricot, Cherry, Plum, Prune	Do not apply after shuck split	Leaf curl  Shothole, Brown rot blossom blight, Lacy (russet) scab on prune, Cherry leaf spot, Scab	3 ¾ tsp. Per Application, 18 ¾ tsp. Per Year	Apply at leaf fall in late autumn. When conditions favor high disease levels apply once or twice more in mid to late winter before budswell. Make one application at budbreak or popcorn (pink, red or early white bud). If weather conditions favor disease, make a second application 10 days later (full bloom to petal fall). Apply at shuck split to prevent infections on young fruit. If additional disease control is needed after shuck split and before harvest, use another registered fungicide.

## CONIFER DISEASES

Apply this product in sufficient water to obtain uniform coverage of tree canopy, including the undersides of leaves, to the point of spray runoff. Mix the indicated rate of this product into each 4 gallons of water to be used for each application, generally sufficient to treat 200 square feet. Do not apply more than 16 fluid ounces (100 teaspoonfuls) of this product per 1,000 square feet per year on field-grown conifers.

**Note:** Avoid spraying plants during extremely hot and sunny weather. **DO NOT apply this product within one week before or after application of oil or an oil-based pesticide.** Do not graze treated areas or feed treated plant parts to livestock.

**tsp. = teaspoonful (1/6 fluid ounce) RATE PER 4 GALLONS = 5 tsp. Per Application**

**Diseases:** Scleroderma canker (pines), Swiss needlecast, Sirococcus tip blight, Rhizosphaera needlecast (spruces), Scirrhia brown spot (pines) **Application Directions:** Make the first application in spring when new shoot growth is 1/2 to 2 inches in length. Make additional applications at 3 to 4 week intervals until conditions no longer favor disease development. For use in nursery beds, apply the highest rate specified on a 3 week schedule.

**Diseases:** Cyclaneusma and Lophodermium needlecasts (pines) **Application Directions:** Apply in early spring prior to budbreak. Repeat applications at approximately 6 to 8 week intervals, until spore release ceases in late fall. Apply monthly during periods of frequent rainfall, and where Lophodermium infections occur during dormancy (Pacific Northwest). During drought periods, applications may be suspended, then resumed upon next occurrence of needle wetness.

**Diseases:** Rhabdocline needlecast (Douglas-fir) **Application Directions:** Apply at budbreak and repeat at 3 to 4 week intervals until needles are fully elongated and conditions no longer favor disease development. When irregular budbreak occurs, apply weekly until all trees have broken bud, then every 3 to 4 weeks as specified above. In nursery beds, apply on a 3 week schedule.

**Diseases:** Botrytis seedling blight, Phoma twig blight **Application Directions:** Begin applications in nursery beds when seedlings are 4 inches tall and when cool, moist conditions favor disease development. Make additional applications at 7 to 14 day intervals as long as disease favorable conditions persist.

**Diseases:** Autoecious needle rust (Weir's cushion rust) (spruces) **Application Directions:** Begin applications in nursery beds when 10% of buds have broken and repeat twice thereafter at 7-10 day intervals.

## STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage or disposal. Open dumping is prohibited. **Pesticide Storage:** Store in a cool place. Protect from excessive heat. **Pesticide Disposal:** Pesticide wastes are toxic. Improper disposal of excess pesticide, pesticide spray or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. **Container Disposal:** Nonrefillable container. Do not reuse or refill this container. *If empty:* Place in trash or offer for recycling if available. *If partly filled:* Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

## FIRST AID

<b>IF INHALED:</b>	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth to mouth if possible. Call a poison control center or doctor for further treatment advice.
<b>IF IN EYES:</b>	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 center or doctor for treatment advice.
<b>IF ON SKIN OR CLOTHING:</b>	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
<b>IF SWALLOWED:</b>	Call a poison control center or doctor immediately for treatment advice. Have affected person sip a glass of water if able to swallow. Do not induce vomiting unless told by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact the National Pesticide Information Center at 1-800-858-7378 for emergency medical treatment information.

**NOTES TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage. Persons having a temporary allergic reaction respond to treatment with antihistamines or steroid creams and/or systemic steroids.

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS-WARNING - AVISO

May be fatal if inhaled. Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Do not breathe spray mist. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

**Personal Protective Equipment (PPE):** Mixers, loaders, applicators and all other handlers must wear:

- Long-sleeved shirt and long pants;
- Shoes plus socks;

- Protective eye wear;
- Chemical resistant gloves (some of the materials that are chemical-resistant to this product are barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyethylene, polyvinyl chloride, or viton; If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart);
- A NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any N, R, P, or HE prefilter. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Keep children and pets off treated area until dry.

### ENVIRONMENTAL HAZARDS

This product is toxic to aquatic invertebrates and wildlife. DO NOT apply directly to water or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. DO NOT contaminate water when disposing of equipment washwater or rinseate.

Chlorothalonil can contaminate surface water through spray drift. DO NOT apply when weather conditions favor drift from treated areas. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surface water.

Chlorothalonil degradates are known to leach through soil into ground water under certain conditions as a result of label use. Use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.