



**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
 OFFICE OF PESTICIDE PROGRAMS  
 120 Pennsylvania Ave., N.W.  
 Washington, DC 20460-0001

EPA Reg. Number  
**9779-270**

Date of Issuance  
**AUG 23 2001**

Term of Issuance  
**Unconditional**

Name of Pesticide Product  
**Chlorothalonil 4L**

**NOTICE OF PESTICIDE**  
 Registration  
 Reregistration  
 (under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Steve Rogoshcske  
 Agriliance, LLC  
 P.O. Box 64089  
 St. Paul, MN 55164-0089

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby reregistered under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

Registration is in no way to be construed as an endorsement or approval of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

Based on your response to the Chlorothalonil Reregistration Eligibility Decision document, EPA has reregistered the product listed above. This action is taken under the authority of sec. 4(g)(2)(c) of FIFRA. Reregistration under this section does not eliminate the need for continued reassessment of pesticides. EPA may require submission of data any time to maintain the registration of your product.

Signature of Approving Official:

Cynthia Giles-Parker, PM 22

Date:

AUG 23 2001

2718

### CHLOROTHALONIL 4L

Flowable Agricultural, Turf and Ornamental Fungicide

**ACTIVE INGREDIENT**

Chlorothalonil (tetrachloroisophthalonitrile) ..... 40.4%

**INERT INGREDIENTS** ..... 59.6%

Total 100.0%

Contains 4.17 pounds chlorothalonil per gallon.

### KEEP OUT OF REACH OF CHILDREN

### WARNING/AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

#### FIRST AID

**IF INHALED:** Remove person to fresh air. If person is not breathing, call 911 or an ambulance, give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

**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 center or doctor for further 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 center or doctor for further treatment advice.

**IF SWALLOWED:** Call a poison control center 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 center or doctor. Do not give anything by mouth to an unconscious person.

Have product container or label with you when calling a poison control center or doctor, or going for treatment.

#### PRECAUTIONARY STATEMENTS

##### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

##### WARNING

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

**NOTE TO USER:** This product may produce mild bronchial irritation and temporary irritation of the skin, characterized by redness or rash on exposed skin areas. Affected persons should consult a physician.

##### Personal Protective Equipment:

Some materials that are chemical resistant to this product are made of rubber or any waterproof material. If you want more options follow instructions for Category A.

##### Handlers must wear:

- long-sleeved shirt and long pants,
- shoes plus socks,
- chemical resistant gloves (such as barrier laminates, butyl rubber or viton),
- a respirator with an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any N, R, P, or HE prefilter.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240 (d) (4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

Read Additional PRECAUTIONARY STATEMENTS.

EPA Reg. No. 9779-270

EPA Est. No. 9779-

Manufactured For:  
Agrilance, LLC  
P.O. Box 64089, St. Paul, MN 55164-0089

**ACCEPTED**

AUG 23 2001

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 9779-270

NET CONTENTS  
GALS

0X300

**USER SAFETY RECOMMENDATIONS**

Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Users should remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

This product is toxic to fish, aquatic invertebrates, and wildlife. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

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

The chemical can contaminate surface water through spray drift. 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 not separated from adjacent surface waters with vegetated filter strips, and areas over-laying the drainage systems that drain to surface water.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, chemical-resistant gloves, shoes plus socks and protective eyewear.

Special Eye Irritation Provisions: This product is a severe eye irritant. Although the restricted-entry interval expires after 12 hours, for the next 6 1/2 days entry is permitted only when the following safety measures are provided:

1. At least one container designed specifically for flushing eyes must be available in operating condition at the WPS-Required decontamination site intended for workers entering the treated area.
2. Workers must be informed, in a manner they can understand: • that residues in the treated area may be highly irritating to their eyes, • that if they do get residues in their eyes, they should immediately flush their eyes using the eyeflush container that is located at the decontamination site or using other readily available clean water, and • how to operate the eyeflush container.

**NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when the product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter or allow others to enter the treated area until sprays have dried.

**STORAGE AND DISPOSAL**  
**DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISPOSAL**

**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 rinseate 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:** Do not reuse empty container. Triple rinse or equivalent. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**Entry Restrictions:** Do not enter or allow others to enter the treated area until sprays have dried

**GENERAL PRECAUTIONS AND RESTRICTIONS**

This product must not be applied within 150 feet (for aerial and air-blast applications) or 25 feet (for ground application) of marine/estuarine water bodies unless that there is an untreated buffer area of that width between the area to be treated and the water body. Use of this product on home lawns is prohibited.

**SPRAY DRIFT ADVISORY**

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

- 1) The distance of the outer most nozzles on the boom must not exceed  $\frac{1}{4}$  the length of the wingspan or rotor.
- 2) Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed. The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

**AERIAL DRIFT REDUCTION ADVISORY INFORMATION**

**Information on Droplet Size**

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

**Controlling Droplet Size**

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

**Boom Length**

For some use patterns, reducing the effective boom length to less than  $\frac{3}{4}$  of the wingspan or rotor length may further reduce drift without reducing swath width.

**Application Height**

Applications should not be made at a height greater than 10 feet above the top of the tallest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

**Swath Adjustment**

When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

**Wind**

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

**Temperature and Humidity**

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

**Temperature Inversions**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

**Sensitive Areas**

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

**GENERAL INFORMATION**

Chlorothalonil 4L is an excellent fungicide when used according to label directions for control of a broad spectrum of plant diseases. Chlorothalonil 4L can be used effectively in dilute or concentrate sprays. Thorough, uniform coverage is essential for disease control. Do not combine Chlorothalonil 4L in the spray tank with pesticides, surfactants or fertilizers, unless prior use has shown the combination physically compatible, effective and noninjurious under the conditions of use.

When used in tank mix with other fungicides or insecticides, do so only in accordance with the more restrictive of label limitations and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing.

Slowly invert container several times to assure uniform mixture. The required amount of Chlorothalonil 4L should be added slowly into the spray tank during filling. With concentrate sprays, pre-mix the required amount of Chlorothalonil 4L in a clean container and add to the spray tank as it is being filled. Keep agitator running when filling spray tank and during spray operations. Do not use on greenhouse grown agricultural crops.

Dosage rates on this label indicate pints of Chlorothalonil 4L per acre unless otherwise stated. Under conditions favoring disease development, the high rate specified and shortest application interval should be used. Applications should be made in sufficient water to obtain adequate coverage of foliage. Gallonage to be used will vary with crop and amount of plant growth. Spray volume usually will range from 20 to 150 gallons (approximately 80 to 600 liters) per acre for dilute sprays and 5 to 10 gallons (approximately 20 to 40 liters) per acre for concentrate ground sprays and aircraft applications. Both ground and aircraft methods of application are recommended unless specific directions for ground application only are given for a crop. Application through sprinkler irrigation systems is not recommended unless specific directions are given for a crop. See application and calibration instructions below.

**APPLICATION AND CALIBRATION TECHNIQUES FOR SPRINKLER IRRIGATION**

Apply this product only through the following types of irrigation systems. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. If you have questions about calibration, you should contact State Experiment Station specialists, equipment manufacturers, or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

- A. **Center Pivot, Traveler, Big Gun, Motorized Lateral Move, End Tow, and Side (Wheel) Roll Irrigation Equipment:** Operate system and injection equipment at normal pressures recommended by the manufacturer of injection equipment used. Fill tank of injection equipment with water. Operate system for one complete circle for center pivot or one complete run for the other recommended equipment, measuring time required, amount of water injected, and acreage contained in circle or run. Mix recommended amount of Chlorothalonil 4L for acreage to be covered into same amount of water used during calibration and inject into system continuously for one revolution or run, but continue to operate irrigation system until Chlorothalonil 4L has been cleared from last sprinkler head. Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur.

- B. **Solid Set and Hand Move Irrigation Equipment:** Determine acreage covered by sprinkler. Fill tank of injection equipment with water and adjust flow to use contents over a thirty to forty-five minute period. Mix desired amount of Chlorothalonil 4L for acreage to be covered into quantity of water used during calibration and operate entire system at normal pressures recommended by the manufacturer of injection equipment used for amount of time established during calibration. Provide constant mechanical agitation in the mix tank to insure that Chlorothalonil 4L will remain in suspension during the injection cycle. Chlorothalonil 4L can be injected at the beginning or end of the irrigation cycle or as a separate application. Stop injection equipment after treatment is completed and continue to operate irrigation system until the product is cleared from last sprinkler head.

#### **SAFETY DEVICES**

(1) The systems designated above must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. (2) All pesticide injection pipelines must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. (3) The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. (4) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. (5) The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. (6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. (7) Do not apply when wind speed favors drift beyond the area intended for treatment.

#### **SYSTEMS CONNECTED TO PUBLIC WATER SOURCES**

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

For additional instructions on safety precautions, refer to statements (2), (3), (4), (6), and (7) in the section on SAFETY DEVICES.

CROP	DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Bean (Snap)	Rust	2 to 4 1/4 pints	Use in sufficient water to obtain adequate coverage. Begin applications during early bloom stage or when disease first threatens and repeat at weekly intervals or as necessary to maintain control. Do not apply within 7 days of harvest. Do not graze treated areas or feed treated plant parts to livestock.  Do not exceed maximum rate per acre in a single application, or 9 lbs. ai/acre/season (17.25 pts.). Minimum retreatment interval is 7 days.
	Botrytis blight (gray mold)	4 1/4 pints	
Beans (Dry) Navy, Pinto, Kidney, Lima, Blackeye	Rust, Anthracnose, Downy mildew, Cercospora leaf spot (blackeye only)	2 to 2.8 pints	Use in sufficient water to obtain adequate coverage. Begin applications during early bloom stage and repeat at 7 to 10 day intervals. For use only on beans harvested dry with pods removed. Do not apply within 6 weeks before harvest. Do not allow livestock to graze in treated areas or feed treated plant parts to livestock. Do not exceed maximum rate per acre in a single application, or 6 lbs. ai/acre/season (11.5 pts.). Minimum retreatment interval is 7 days.
Cabbage, Chinese cabbage (light-headed varieties only), Cauliflower, Broccoli, Chinese broccoli, Brussels sprouts	Alternaria leaf spot, Downy mildew	2 1/4 pints	Use in sufficient water to obtain adequate coverage. 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 or as necessary to maintain control. Do not apply within 7 days of harvest to Chinese cabbage or Chinese broccoli. Do not exceed maximum rate per acre in a single application, or 12 lbs. ai/acre/season (23 pts.). Minimum retreatment interval is 7 days.
	Ring spot (California only)	2 3/4 pints	For field-seeded Brussels sprouts, begin applications at time of early sprout development or when conditions favor disease development. Repeat at 7 to 10 day intervals or as necessary to maintain control. Do not exceed maximum rate per acre in a single application, or 12 lbs. ai/acre/season (23 pts.). Minimum retreatment interval is 7 days.
Carrot	Cercospora (early) blight, Alternaria (late) blight	2 1/4 to 2 3/4 pints	Use in sufficient water to obtain adequate coverage. Start applications when disease threatens and repeat at 7 to 10 day intervals or as necessary to maintain control. Chlorothalonil 4L may be applied through sprinkler irrigation equipment (solid set, portable wheel move, motorized lateral move, or center pivot systems only). See calibration directions preceding this section. Do not exceed maximum rate per acre in a single application, or 15 lbs. ai/acre/season (28.75 pts.). Minimum retreatment interval is 7 days.
Celery	Cercospora (early) blight, Septoria (late) blight, Basal stalk rot (Rhizoctonia solani)	1 1/2 to 2 1/8 pints OR 3 to 4 1/4 pints	Use 1 1/2 to 2 1/8 pints per acre on a 3 to 5 day spray schedule or 3 to 4 1/4 pints per acre on a 7 day schedule. Start applications when transplants are set in the field. Apply in sufficient water to obtain adequate coverage. Chlorothalonil 4L may be applied through sprinkler irrigation equipment (solid set, portable wheel move, motorized lateral move, or center pivot systems only). See calibration directions preceding this section. Do not apply within 7 days of harvest.
	Pink rot (Suppression-7 day schedule)	4 1/4 pints	Do not exceed maximum rate per acre in a single application, or 18 lbs. ai/acre/season (34.5 pts.). Minimum retreatment interval is 7 days.
	Early blight, Late blight	2 1/4 to 2 3/4 pints/100 gal.	For celery seedbeds, apply 125 gallons per acre every 7 days. Start applications shortly after crop emergence. Use the higher rate under severe disease conditions.

<p>Corn (Sweet), Corn grown for seed</p>	<p>Helminthosporium leaf blights, Rust</p>	<p>1 1/8 to 2 3/4 pints</p>	<p>Use in sufficient water to obtain adequate coverage. Begin applications when conditions favor disease development and repeat at 7 day intervals to maintain control. Under severe disease conditions, use 2 1/4 to 2 3/4 pints per acre. Do not apply within 14 days of harvest. Do not apply to sweet corn to be processed. Do not allow livestock to graze in treated fields. Do not ensile treated corn or use as livestock forage. Do not exceed maximum rate per acre in a single application, or 8 lbs. ai/acre/season (17.25 pts.). Minimum retreatment interval is 7 days.</p>
<p>Cranberry</p>	<p>Fruit rots, Lophodermium leaf-twig blight</p>	<p>6 to 9 1/2 pints</p>	<p>Apply at early bloom and repeat at 10 to 14 day intervals. Under severe disease conditions, use the 10 pints/acre rate on a 10 day schedule. Do not apply more than 3 times per season, or within 50 days before harvest. Do not apply to bogs when flooded or allow release of irrigation water from bogs for at least 3 days following application. Chlorothalonil 4L may be applied through sprinkler irrigation equipment. Use 300 gallons of water per acre through solid set systems only. See calibration directions preceding this section. Do not exceed maximum rate per acre in a single application, or 15 lbs. ai/acre/season (26.75 pts.). Minimum retreatment interval is 10 days.</p>
<p>Cucurbits: Cucumber, Cantaloupe, Muskmelon, Honeydew melon, Watermelon, Squash, Pumpkin</p>	<p>Anthracoosis, Downy mildew, Target spot</p>	<p>2 1/4 to 2 3/4 pints</p>	<p>Use in sufficient water to obtain adequate coverage. Begin application when plants are in first true leaf stage or when conditions are favorable for disease development. Repeat applications at 7 day intervals. Under severe disease conditions, shorten spray interval. Chlorothalonil 4L may be applied through sprinkler irrigation equipment (solid set, portable wheel move, or center pivot systems only). See calibration directions preceding this section. PRECAUTION: Certain varieties of melons may be sensitive to sunburn following applications of chlorothalonil during periods of high solar intensity.</p>
	<p>Cercospora leaf spot, Gummy stem blight (black rot), Alternaria leaf blight, Scab, Powdery mildew (Sporobolus only)</p>	<p>2 3/4 to 4 1/4 pints</p>	<p>Do not exceed maximum rate per acre in a single application, or 15.75 lbs. ai/acre/season (30.2 pts.). Minimum retreatment interval is 7 days.</p>
<p>Grasses grown for seed</p>	<p>Stem rust, Leaf rust, Stripe rust, Septoria leaf spot, Glume blotch, Bipolaris, Drechlera</p>	<p>1 1/2 to 2 pints</p>	<p>Use in sufficient water to obtain adequate coverage. Begin applications during stem elongation when conditions favor disease development. Re-apply at flag (top) leaf emergence and repeat applications at 14 day intervals. Do not apply within 14 days of harvest. Do not allow livestock to graze in treated areas or feed treated plant parts to livestock. Do not exceed maximum rate per acre in a single application, or 4.5 lbs. ai/acre/season (8.6 pts.). Minimum retreatment interval is 14 days.</p>
	<p>Selenophoma (eyespot)</p>	<p>1 1/2 to 2.8 pints</p>	
<p>Mint</p>	<p>Rust, Septoria leaf spot</p>	<p>2 pints</p>	<p>Use in sufficient water to obtain adequate coverage, normally 20 to 150 gallons per acre for dilute sprays and 5 to 10 gallons per acre for concentrate ground and aircraft applications. Begin applications when emerging plants are 4-8 inches high. Repeat applications at 7 to 10 day intervals or as necessary to maintain control. Do not apply more than 3 times per season. Do not apply within 80 days of harvest. Do not feed fresh or extracted mint hay from treated fields to livestock. Based on available residue data, use of Chlorothalonil 4L on mint is restricted to Indiana, Michigan and Wisconsin. Do not exceed maximum rate per acre in a single application, or 3 lbs. ai/acre/season (5.75 pts.). Minimum retreatment interval is 7 days.</p>



CROP	DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS		
Onion (dry bulb) and Garlic	Botrytis leaf blight (blast), Botrytis neck rot (suppression), Purple blotch	1 1/2 to 3 pints	Apply in sufficient water to obtain adequate coverage of tops. Chlorothalonil 4L 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	Low Disease Hazard & Some Disease Present	High Disease Hazard
		Rate/Acre Frequency	1 1/2 pt. 10 days	2 pts. 7 to 10 days	3 pts. 7 days
			For suppression of neck rot (Botrytis spp.) during storage, a minimum of three weekly applications prior to killing, using 2 to 3 pints of Chlorothalonil 4L per acre, is recommended. Do not apply within 7 days of harvest. Do not exceed maximum rate per acre in a single application, or 15 lbs. ai/acre/season (28.75 pts.). Minimum retreatment interval is 7 days.		
Onion (green bunching), Leek, Shallot, Onion grown for seed	Botrytis leaf blight (blast), Purple blotch, Downy mildew (suppression)	2 to 4 1/4 pints	Use in sufficient water to obtain thorough coverage of tops. 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 within 7 days of harvest on garlic. Do not apply more than 3 times per season or within 14 days of harvest on green bunching onions, leeks or shallots. If additional disease control is needed before harvest, use another registered fungicide. Do not exceed maximum rate per acre in a single application, or 6.7 lbs. ai/acre/season (12.8 pts.). Minimum retreatment interval is 7 days.		
Papaya	Alternaria fruit spot, Anthracnose, Stem end rot	3 to 4 1/4 pints	Apply with ground equipment only, in sufficient water to obtain adequate coverage of fruit and leaves. Begin treatment when conditions favor development of disease and continue treatments at 14 day intervals until weather conditions no longer favor disease development. Do not graze livestock in treated area or feed processing by-products to livestock. Do not exceed maximum rate per acre in a single application, or 6.75 lbs. ai/acre/season (12.9 pts.). Minimum retreatment interval is 14 days.		
Parsnip	Alternaria leaf spot, Downy mildew, Anthracnose, Botrytis blight (gray mold), Bottom rot (Rhizoctonia)	2 to 2.8 pints	Apply in sufficient water to obtain adequate coverage. 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. Do not apply more than 4 times per season or within 10 days of harvest. Do not feed treated plant parts to livestock. Do not exceed maximum rate per acre in a single application, or 6 lbs. ai/acre/season (11.5 pts.). Minimum retreatment interval is 7 days.		

CROP	DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Passion Fruit (Hawaii only)	Alternaria fruit and leaf spot (passion fruit brown spot)	2.34 pints	Apply with ground equipment in sufficient water to obtain adequate coverage of fruit and leaves. Begin treatment when fruit spots appear (April to July) and continue treatments at 14 day intervals until weather conditions no longer favor disease development. Do not graze in treated area or feed vines or processing by-product to livestock used for food. Do not exceed maximum rate per acre in a single application, or 7.5 lbs. ai/acre/season (14.3 pts.). Minimum retreatment interval is 14 days.
Peanut	Cercospora (early) leaf spot, Cercosporidium (late) leaf spot	1 1/2 to 2 1/8 pints	Apply in sufficient water for coverage when leaf wetness first occurs or 30 to 40 days after planting. Repeat at 14 day intervals. When conditions favor late leaf spot or when rust or web blotch occur, apply 2 1/8 pints per acre at 14 day intervals for the remainder of the season. Do not apply within 14 days of harvest. Do not allow livestock to graze in treated areas. Do not feed hay or thrashings from treated fields to livestock. Chlorothalonil 4L may be applied through sprinkler irrigation equipment. Use 2 1/8 pints per acre in solid set, portable wheel move, center pivot, motorized lateral move, or traveling gun sprinkler irrigation equipment. See calibration directions preceding this section. Do not exceed maximum rate per acre in a single application, or 9 lbs. ai/acre/season (17.25 pts.). Minimum retreatment interval is 14 days.
	Rust, Web blotch	2 1/8 pints	
<p>Where Sclerotium stem rot (white mold) and Rhizoctonia limb rot are present, use Chlorothalonil 4L in a spray program with Folicur<sup>®</sup> 3.6 F to discourage development of Folicur-resistant strains of fungi. The first two (2) applications (at 14 day intervals) should be made with Chlorothalonil 4L at 2 1/8 pts./acv. Applications 3, 4, 5 and 6 (at 14-day intervals) should be Folicur<sup>®</sup> 3.6 F and the last application with Chlorothalonil 4L again. To further discourage development of Folicur-resistant strains of fungi—for applications 3, 4, 5 and 6, tank mix 1 1/2 pint per acre of Chlorothalonil 4L with Folicur<sup>®</sup> 3.6 F at the recommended rate. See the Folicur<sup>®</sup> 3.6 F label for specific use directions and rates. Do not apply any tank mixes containing Folicur<sup>®</sup> 3.6 F through any type of irrigation system.</p> <p>* Folicur<sup>®</sup> is a trademark of Bayer Co.</p>			
<p>Chlorothalonil 4L Plus TR<sup>®</sup> Tank Mix: Chlorothalonil 4L may be used in combination with TR for early and late leaf spot control. Apply 1 1/2 pint Chlorothalonil 4L as a tank mixture with 2 fl. oz. of TR in a minimum of 20 gallons of water per acre with ground equipment, or a minimum of 5 gallons of water per acre by aerial application. Begin applications 35-40 days after planting, or at first appearance of disease, and continue applications on a 14 day schedule. Chlorothalonil 4L plus TR also may be used in State Agricultural Extension advisory (disease forecasting) programs which recommend application timing based on environmental factors favorable for disease development. Consult the TR label for specific use directions and restrictions. Do not apply tank mixtures with TR through any type of irrigation system.</p> <p>* TR<sup>®</sup> is a trademark of Ciba-Geigy Corporation.</p>			
Potato	Early blight, late blight, Botrytis vine rot	1 pint -then- 1 1/2 to 2 1/8 pints	Apply as a banded treatment directed over the foliage, beginning when vines are first exposed and leaf wetness occurs. Repeat applications at 7 to 10 day intervals until vines close, then increase rate as described below.  In addition to the early-season applications above, as vines close between rows increase water carrier volume to cover the denser canopy and begin broadcast application patterns. Continue applications at 7 to 10 day intervals. Use the highest registered rate weekly when disease conditions are severe. Do not exceed maximum rate per acre in a single application, or 11.25 lbs. ai/acre/season (21.5 pts.). Minimum retreatment interval is 5 days. Chlorothalonil 4L may be applied through sprinkler irrigation equipment (solid set, portable wheel move, center pivot, or motorized lateral move systems only). Do not exceed a 10 day interval between applications when using this technique. Follow calibration and application directions preceding this section.

CROP	DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Soybean Determinate (Southern) Varieties	Anthracnose, Diaporthe pod and stem blight, Frogeye leaf spot ( <i>Cercospora sojae</i> ), Purple seed stain, <i>Cercospora</i> leaf blight, ( <i>Cercospora kikuchii</i> ), <i>Septoria</i> brown spot.		Apply in sufficient water to obtain complete coverage, using at least five gallons water per acre for aerial application. Use the three application program in areas having a history of moderate to severe disease intensity. Chlorothalonil 4L may be applied through sprinker irrigation equipment. Follow application and calibration directions preceding this section. NOTE: Do not exceed total of 3 applications per season. Do not apply within 6 weeks of harvest. Do not feed treated plant parts to livestock or allow grazing in treated fields. Do not exceed maximum rate per acre in a single application, or 4.5 lbs. ai/acre/season (8.6 pts.). Minimum retreatment interval is 14 days.
		2 to 3.45 pints	Two application program - Make the first application at early pod set (R3) stage, when majority of pods are 1/8 to 3/8 inch in length) and the second at beginning of seed formation (R5) which occurs about 14 days later.
		1 1/2 to 2 3/4 pints	Three application program - Make the first application at the beginning of flowering (R1), the second at early pod (R3) and the third at beginning of seed formation (R5).
	Stem canker ( <i>Diaporthe phaseolorum</i> var. <i>caulivora</i> )	1 1/2 pints	Apply in 10 to 20 gallons of water per acre, as a band treatment directing spray to provide coverage of entire plant. Make the first application at time of emergence of the second trifoliate leaves (V2). If conditions favor stem canker disease, make a second and a third application. Make all applications at 14 day intervals.

CROP	DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Soybean Indeterminate (Northern) Varieties	Anthrachnose, Diaporthe pod and Stem blight, Frogeye leaf spot (Cercospora sojina), Purple seed stain, Cercospora leaf blight (Cercospora kikuchi), Septoria brown spot		Apply in sufficient water to obtain complete coverage, using at least five gallons of water per acre for aerial application. Use the three application program in areas having a history of moderate to severe disease intensity. Chlorothalonil 4L may be applied through sprinkler irrigation equipment. Follow application and calibration directions preceding this section. NOTE: Do not apply within 6 weeks of harvest. Do not feed treated plant parts to livestock or allow grazing of treated fields. Do not exceed maximum rate per acre in a single application, or 4.5 lbs. ai/acre/season (8.6 pts.). Minimum retreatment interval is 14 days.
		2 to 3 45 pints	Two application program - Make the first application when the largest pods are 1 to 1 1/2 inches in length and make the second application 14 days later. Chlorothalonil 4L may be co-applied with Benlate 50WP as a tank mix for disease control in indeterminate (northern) soybeans. Use 1 pint of Chlorothalonil 4L plus 8 ounces of Benlate 50WP per acre. Make the first application when pods near the top of plants are 1/2 to 1 inch in length and a second application 14 days later.
		1 1/2 to 2 3/4 pints	Three application program - Make the first application one week after the first flowering and continue applications at 14 day intervals.
Tomato	FOLIAGE: (apply every 7 to 10 days): Early blight, Late blight, Gray leaf spot, Gray leaf mold, Septoria leaf spot, Target spot	2 to 3 pints	Apply in sufficient water to obtain adequate coverage. Begin applications when dew or rain occur and disease threatens. Use the highest rate and shortest interval specified when disease conditions are severe. Chlorothalonil 4L 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 Chlorothalonil 4L. Do not use with Copper-Count N in concentrated spray suspensions. Chlorothalonil 4L may be applied through sprinkler irrigation equipment, (solid set or portable wheel move systems only). See calibration directions preceding this section.  Do not exceed maximum rate per acre in a single application, or 15.1 lbs. ai/acre/season (28.9 pts.). Minimum retreatment interval is 7 days.
	FRUIT: (apply every 7 to 14 days beginning at fruit set): Anthracnose, Alternaria fruit rot (black mold), Rhizoctonia fruit rot, Botrytis gray mold, Late blight fruit rot	3 to 4 pints	

Benlate is a registered trademark of E.I. DuPont de Nemours and Co., Inc.

Copper Count is a registered trademark of Mineral Research & Development Corporation.

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TREE AND ORCHARD CROPS	CROP	SPRAY VOLUME (Gallons Per Acre)	
<p>Apply Chlorothalonil 4L in sufficient water and with proper calibration to obtain uniform coverage of tree canopy. Application with ground equipment is preferable to aerial application because ground applications generally give better coverage of the tree canopy. If application with ground equipment is not feasible, Chlorothalonil 4L may be applied with aircraft using at least 20 gallons per acre. When concentrate sprays are used or when treating non-bearing or immature trees, the lower rate of Chlorothalonil 4L listed may be used. Do not allow livestock to graze in treated areas. The following spray volumes are recommended as gallons of spray per acre:</p>	<p>Peach, Nectarine, Apricot, Tart Cherry, Plum, Prune</p>	<p>20 (concentrate) to 300 (full dilute)</p>	
	<p>Sweet Cherry</p>	<p>20 (concentrate) to 400 (full dilute)</p>	
	<p>Conifers Forest stands Christmas trees Nursery Beds</p>	<p>Dilute Not Used 100 100</p>	<p>Concentrate 10-20 (aircraft) 10-50 (aircraft or ground equipment) 5-10 (ground equipment only)</p>

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Chlorothalonil 4L RATE				
CROP	DISEASES	ACRE	100 GAL*	APPLICATION DIRECTIONS
Peach, Nectarine, Apricot, Cherry, Plum, Prune	Leaf curl, Coryneum blight (shot-hole)	4 1/2 to 6 pints	1 1/2 to 2 pints	For best control of both diseases apply at leaf fall in late autumn, using sufficient water and proper sprayer calibration to obtain uniform coverage. When conditions favor high disease levels, use the high rate of application and apply once or twice more in mid to late winter before budswell. If the leaf fall application is not practical, application of Chlorothalonil 4L for control of leaf curl may be made at any time prior to budswell the following spring. Where Coryneum blight (shot-hole) occurs, also apply at budbreak to protect newly emerging leaves and at shuck split to prevent fruit infections.
	Brown rot blossom blight, Lacy (russet) scab (plum/prune)	4 1/2 to 6 pints	1 1/2 to 2 pints	Use 6 to 8 pints per acre on trees taller than 20 ft. and 4 1/2 to 6 pints per acre on smaller trees. Make one application at popcorn (pink, red, or, early white bud) and a second application at full bloom. If weather conditions favor disease development, make an additional application at petal fall.
	Cherry leaf spot; Peach, Nectarine, Apricot scab	4 1/2 to 6 pints	1 1/2 to 2 pints	In addition to the bloom applications listed above, make one application at shuck-split. Do not apply Chlorothalonil 4L after shuck-split and before harvest. If additional disease control is needed before harvest, use another registered fungicide. For control of cherry leaf spot after harvest, make one application to foliage within 7 days after fruit is removed. In orchards with a history of high leaf spot incidence, make a second application 10-14 days later.
<p>Note: Do not exceed maximum rate per acre in a single application, or 15.5 lbs. ai/acre/season (29.7 pts.) on stone fruits. Minimum retreatment interval is 10 days for stone fruit.</p>				
Conifers	Swiss needlecast	4 to 7.85 pints	4 to 7.85 pints	Single application technique: In Christmas tree plantations or forest stands make one application in the spring when new shoot growth is 1/4 to 2 inches in length.
	Sclerotinia canker (pines), Swiss needlecast	2 to 4 pints	2 to 4 pints	Make the first application in spring when new shoot growth is 1/4 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.
	Sirococcus tip blight	3 to 5 pints	3 to 5 pints	
	Rhizosphaera needlecast (spruces), Scirhia brown spot (pines)	7.85 pints	7.85 pints	
	Cyclaneusma and Lophodermium needlecast (pines)	4 to 8 pints	4 to 7.85 pints	Apply in early spring prior to bud-break. Repeat applications at approximately 6 to 8 week intervals, until snow release ceases in late fall. Apply monthly during periods of frequent rainfall, and where Lophodermium infections occur during dormancy (Pacific NW). During drought periods, applications may be suspended, then resumed upon next occurrence of needle wetness.

Chlorothalonil 4L RATE				
CROP	DISEASES	ACRE	100 GAL	APPLICATION DIRECTIONS
Conifers (cont.)	Rhabdocline needlecast (Douglas fir)	2 to 4 pints	2 to 4 pints	Apply at budbreak and repeat at 3 to 4 week intervals until needles are fully elongated and conditions no longer favor disease development. In plantations of mixed provenance, or when irregular budbreak occurs, apply weekly until all trees have broken bud, then every 3 to 4 weeks as specified above. In nursery beds, use the high rate on a 3 week schedule.
	Botrytis seedling blight, Phoma twig blight	2 to 4 pints	2 to 4 pints	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 favorable disease conditions persist.

\*Volumetric rates to be used only with full dilute spray volume specified on this label for tree and orchard crops.  
 Note: Do not exceed maximum rate per acre in a single application, or 18.5 lbs. ai/acre/season (31.6 pts.) conifers.  
 Minimum retreatment interval is 21 days for conifers (7 for seed beds only).

Aerial application to conifers is permitted although ground applications generally give better coverage. If application with ground equipment is not feasible, CHLOROTHALONIL 4L may be applied aerially to forest stands in 10-20 gallons of water and to Christmas trees in 10-50 gallons of water.

**USE DIRECTIONS  
TURF AND ORNAMENTALS**

Chlorothalonil 4L is formulated for use on golf course tees, greens and fairways, ornamental turfgrass, sod farms and ornamental herbs, shrubs and trees. It is highly effective for the control of a broad spectrum of turf and ornamental plant diseases when it is used according to the directions on this product label. Thorough, uniform coverage of plant surfaces is essential for good disease control.

**TURF:** Do not mow or water after treatment until spray deposit on turfgrass is thoroughly dry. Chlorothalonil 4L should always be used in conjunction with good turf management practices. Sodfarm turf treated with chlorothalonil prior to harvest must be mechanically cut, rolled, and harvested. Maximum seasonal total for use on ornamental turfgrass must not exceed 26 lbs. a.i. or 49-3/4 pints.

**Golf Course Fairways:** Apply in 30 to 40 gallons of water per acre. Begin applications when conditions favor disease development and repeat applications as long as these conditions persist. Under severe disease conditions, use the highest rate and shortest interval corresponding with the application schedule selected from the table below.

DISEASE	APPLICATION INTERVAL	APPLICATION RATES PER ACRE
Sclerotinia (Dollar Spot)	7-10 days	4 - 8 pints
	14-21 days	8 - 14 pints
Helminthosporium (Leafspot)	7-10 days	8 pints
	14-21 days	8 - 14 pints
Rhizoctonia (Brown Patch)	7-14 days	8 - 14 pints
Anthraxnose	7-14 days	6 - 12 quarts

**Golf Course Tees and Greens and Ornamental Turfgrass:** Apply in an adequate amount of water to provide complete coverage. This amount may vary from 2 to 10 gallons per 1,000 square feet. See below for suggested rates and timing. Under severe disease conditions, use the curative rates and spray on a 7 day schedule. Minimum retreatment interval is 7 days. Maximum seasonal total for use on tees must not exceed 52 lbs. ai or 99-2/3 pints. Maximum seasonal total for use on greens must not exceed 73 lbs. ai. or 140 pints. Maximum seasonal total for use on fairways must not exceed 26 lbs. ai or 49-3/4 pints.

Do not use Chlorothalonil 4L through sprinkler irrigation equipment on golf courses.

DISEASE	APPLICATION INTERVAL	RATE Fluid Ounces Per 1,000 Sq. Ft.	
		Preventive*	Curative**
Anthraxnose	7-14 days	5-9	9-11
Copper spot	7-10 days	6-9	6-11
Curvularia leafspot	7-10 days	3-6	6-11
Dollar spot	7-14 days	3-6	6-11
Gray leafspot	7-10 days	3-6	6-11
Helminthosporium leafspot and melting out	7-10 days	3-6	6-11
Large brown patch	7-10 days	3-6	6-11
Red thread	7-10 days	3-9	9-11
Stem rust of bluegrass	7-14 days	6-9	9-11
Dichondra: Alternaria leafspot (California only)	7-14 days	6-9	9-11

Recommended rates for preventing disease establishment; use lower rate when disease conditions are light to moderate, higher indicated rates when conditions are severe.

\*\* Rates for use on a 7 day schedule when disease is present. Higher indicated rate should be applied under severe conditions.



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**Turfgrasses - Gray snow mold** caused by *Typhula* spp.: Apply in sufficient water to obtain adequate coverage (2 to 10 gallons per 1,000 square feet). Apply 7.9 fluid ounces of Chlorothalonil 4L per 1,000 square feet of turf area. Application must be made before snow cover in autumn. If snow cover is intermittent or lacking during the winter, re-apply at 5 1/2 fluid ounces per 1,000 square feet at 7 - 14 day intervals until gray snow mold conditions no longer prevail. In areas where pink snow mold (*Geotrichia* or *Fusarium* patch) is likely to occur, apply at 7.9 fluid ounces per 1,000 square feet in combination with either Torsan® 1991 50WP at 2 ounces per 1,000 square feet or Chipco® 26019 50WP at 4 ounces per 1,000 square feet of turf area.

Torsan is a registered trademark of E. I. DuPont de Nemours & Company, Inc.  
 Chipco is a registered trademark of Rhone-Poulenc, Inc.

**Fusarium (Geotrichia) Patch:** For control of Fusarium patch only in areas where snow cover is intermittent or lacking during the winter, apply 7.9 fluid ounces per 1,000 square feet of turf area. Begin applications in late autumn and re-apply at 21 to 28 day intervals until conditions favorable for Fusarium patch no longer prevail.

**ALGAL SCUM:** For prevention of algal scum on turfgrasses caused by cyanobacteria of the genus *Lyngbya*, apply Chlorothalonil 4L at the rate of 3 to 5 1/2 ounces per 1,000 square feet on a 7 to 14 day schedule. Under severe scum conditions, use the high rate and apply on a 7 day schedule. When algal scum is well established, every attempt should be made to dry out the afflicted area. Once dry, spiking or verticutting should be done to enhance turfgrass recovery in conjunction with Chlorothalonil 4L applications at the rate of 6 ounces per 1,000 square feet on a 7 to 14 day schedule. Several applications of Chlorothalonil 4L at the high rate may be necessary for turfgrass recovery. Only a preventive spray program with Chlorothalonil 4L will prevent recurrence of the algae when environmental conditions are favorable for algal growth.

**ORNAMENTALS:** Apply Chlorothalonil 4L at a rate of 2 pints per 100 gallons of water unless other directions are given in the tables below. Begin applications as directed for each species and disease condition cited and repeat on a 7 to 14 day schedule until conditions are no longer favorable for disease development. During periods when conditions favor severe disease incidence, generally cloudy or wet weather, use the higher rate specified and the shortest indicated interval between applications.

Note: For field grown ornamentals do not exceed single application rate of 3 pints/acre or 36.4 lbs. ai/acre/season (69 1/2 pts.). Minimum retreatment interval is 7 days.

Chlorothalonil 4L may be used in greenhouses. Do not use mistblowers or high pressure spray equipment when making applications in greenhouses.

ORNAMENTALS

SPECIES	DISEASES CONTROLLED	SUGGESTED FIRST APPLICATION
<b>BROADLEAF SHRUBS AND TREES:</b>		
Ash ( <i>Fraxinus</i> )	Cercospora, Cercosporidium, Cylindrosporium leafspots	Spring bud break
Azalea*	Phytophthora die-back, Ovulinia flower blight	New leaf emergence; Early bloom
Rhododendron*	Leaf blotch, Anthracnose	Spring bud break
Buckeye, Horsechestnut	Cercospora leafspot	Petal fall
Cherry-Laurel	Scab, Cedar-apple rust, Sphaeropsis leafspot	Spring bud break
Crabapple	Septoria leafspot	Early bloom
Dogwood	Anthracnose	Spring bud break
Euonymus	Scab	Spring bud break
Firethorn	Monilinia blossom/branch blight	Early bloom
Flowering almond, Quince, Sand Cherry	Rust, Fabrea leafspot	Prebloom
Hawthorn	Rhizoctonia web blight	Warm, moist conditions
Holly	Cercospora leafspot	Spring bud break
Mountain Laurel	Taphrina blister, Actinopelte leafspot, Anthracnose	Dormant budswell
Oak (red group only)	Rust	Spring bud break
Oregon-Grape (Mahonia)	Fabrea	Spring bud break
Photinia	(Entomosporium) leafspot	
Pieris (Andromeda)	Phytophthora die-back	New leaf emergence
Poplar	Marssonina leafspot	Spring bud break
Privet	Cercospora leafspot	Prolonged wet conditions
Sycamore, Planetree	Anthracnose	Spring bud break
Viburnum	Powdery mildew	Mid-summer

SPECIES	DISEASES CONTROLLED	SUGGESTED FIRST APPLICATION
<b>BULBS AND FLOWERING PLANTS:</b>		
Carnation	Alternaria leafspot/branch rot	Transplant of cuttings
Chrysanthemum/Daisy	Botrytis flower blight	Cool, moist conditions
	Mycosphaerella ray blight, Septoria leafspot	Transplant of cuttings
Geranium	Botrytis flower blight (gray mold)	Prebloom
Gladolus	Botrytis blight, rust	Cool, moist conditions
	Curvularia leaf/flower spot, Botrytis leaf/flower spot	Early propagation
Hollyhock	Rust	Early seedling stage
Hydrangea* (foliage only)	Cercospora and Septoria leafspots, Rust	Early propagation
	Iris	Botrytis blossom blight
Lily, Crocus, Daffodil, Narcissus, Tulip	Didymella leafspot, Ink spot	Prebloom
	Botrytis blight (gray mold, fire-measles), Stagonospora leaf scorch	
Petunia*	Phytophthora blight (foliar phase), Botrytis blight	Prebloom
Rose (Use 1 1/2 pints per 100 gallons)	Black spot, Botrytis blight	Spring bud break
Statice	Anthracnose, Cercospora, Alternaria, Botrytis leaf blights	Spring bud break
Zinnia	Powdery mildew	First sign of disease
*Discoloration of blooms has been noted on certain varieties when applications are made during flowering.		
<b>FOLIAGE PLANTS:</b>		
Dracaena	Fusarium leafspot	Pre-transplant
Pachysandra (Use 4 pints per 100 gallons)	Volvella leaf blight	Spring bud break
	Leatherleaf fern	Ascochyta blight, Cercospora leafspot, Cylindrocladium leafspot, Rhizoctonia blight
Parlor palm	Bipolaris (Helminthosporium) leafspot	Cool, moist conditions
Prayer plant (Maranta)	Helminthosporium leafspot	Early propagation
Oyster plant (Rhoeo)	Tan leafspot	Early propagation
Syngonium	Cephalosporium leafspot	Warm, moist conditions
Philodendron	Phytophthora blight, Dactylaria leafspot	Moist conditions

**Notice of Warranty**

Seller warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use. SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, NOR IS ANY REPRESENTATIVE OF SELLER AUTHORIZED TO MAKE ANY SUCH WARRANTY OR MODIFY THESE TERMS. This warranty does not extend to the storage, handling or use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to Seller, and Buyer assumes the risk of any such storage, handling or use. Seller shall not be responsible for incidental or consequential damages, if any, resulting from a breach of warranty.