


Drexel®

Chlorothalonil-Zn

Fungicide

For control of diseases in listed Agricultural, Turf and Ornamental crops. This product is NOT FOR RESIDENTIAL USE.

ACTIVE INGREDIENT:

Chlorothalonil..... 38.5%

OTHER INGREDIENTS: 61.5%

TOTAL: 100.0%

This product contains 4.24 pounds of Chlorothalonil per gallon equivalent to 508 grams per liter.

KEEP OUT OF REACH OF CHILDREN

CAUTION

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

SHAKE WELL BEFORE USING

[RECIRCULATE CONTENTS BEFORE USE]

See FIRST AID Below

[See Side (Back) Panel for "FIRST AID";

See Page ___ for "FIRST AID"]

[See Attached Booklet for

Complete Directions for Use]

EPA Reg. No. 19713-709

EPA Est. No. 19713-XX-XXX

Net Content:

_____ Gals. (_____) L

FIRST AID

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.

IF INHALED:

- 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 treatment advice.

IF IN EYES:

- Hold eye open and rinse slowly and gently with water for 15 to 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.

IF ON SKIN OR CLOTHING:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 to 20 minutes.
- Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also call CHEMTREC at 800-424-9300 for emergency medical treatment information.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed. Harmful if inhaled. Causes moderate eye irritation. Avoid breathing spray mist. Avoid contact with skin, eyes, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Wear long-sleeved shirt and long pants, socks and shoes. Wear appropriate protective eyewear.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Mixers, loaders, applicators and all other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made out of barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, natural rubber ≥14 mils, polyethylene, polyvinyl chloride ≥14 mils, viton ≥14 mils,
- Shoes plus socks and
- Protective eyewear

In addition, applicators and handlers in enclosed areas such as greenhouse must wear a NIOSH approved particulate filtering facepiece respirator with any N, R or P filter (TC84A); OR another NIOSH approved particulate respirator with any N, R, or P filter; OR a NIOSH approved powered air purifying respirator with an HE filter. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS

When handlers use closed systems or enclosed cabs 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.

USER SAFETY RECOMMENDATIONS

Users should: 1) Wash hands thoroughly before eating, drinking, chewing gum, using tobacco or using the toilet. 2) Remove clothing/ PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3) 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.

Manufactured By:

Drexel Chemical Company

P.O. Box 13327, Memphis, TN 38113-0327

SINCE 1972

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ENVIRONMENTAL HAZARDS

This pesticide 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 may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

Groundwater Advisory

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

Surface Water Advisory

This 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 with infield canals or ditches that drain to surface water areas not separated from adjacent surface waters with vegetated filter strips and areas over-laying tile drainage systems that drain to surface water.

PRODUCT INFORMATION

CHLOROTHALONIL-ZN is a flowable fungicide that can be used effectively in dilute or concentrate sprays. Thorough uniform coverage is essential for disease control. This product is effective when used according to label directions to control a broad spectrum of plant diseases. This product is suitable for use in programs that are compatible with the principles of Integrated Pest Management (IPM) which include the use of disease resistant crop varieties, cultural practices, pest scouting and disease forecasting systems which reduce unnecessary applications of pesticides. This product is also effective for strategic use in programs that attempt to minimize disease resistance to fungicides. Some other fungicides which are at risk from disease resistance exhibit a single-site model of fungicidal action. This product with a multi-site mode of action may be used to delay or prevent the development of resistance to single-site fungicides.

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 (WPS), 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, 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 (REI). The requirements in this box only apply to uses of this product that are covered by the WPS.

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 WPS and that involves contact with anything that has been treated, such as plants, soil or water is: Coveralls, chemical-resistant gloves made of any waterproof material such as nitrile or barrier laminate, shoes plus socks and protective eyewear.

Special Eye Irritation Provisions: This product is a severe eye irritant. Although the REI expires after 12 hours, for the next 6.5 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.

(Continued)

AGRICULTURAL USE REQUIREMENTS (Cont.)

2. Workers must be informed in a manner they can understand that:
 - that residues in the treated area may be highly irritating to their eyes
 - that they should take precautions such as refraining from rubbing their eyes to keep the residues out of their eyes
 - that if they do get residues in their eyes, they should immediately flush their eyes using the eye flush container that is located at the decontamination site or using other readily available clean water and
 - how to operate the eye flush 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 (WPS), 40 CFR Part 170. The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries and greenhouses.

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

DISEASE RESISTANCE MANAGEMENT

CHLOROTHALONIL GROUP M05 FUNGICIDE

For resistance management, this product contains a Group M05 fungicide. Any fungal population may contain individuals naturally resistant to this product and other Group M05 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay fungicide resistance, take one or more of the following steps:

- Rotate the use of this product or other Group M05 fungicides within a growing season sequence with different groups that control the same pathogens.
- Use tank-mixtures with fungicide from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide use that includes scouting, uses historical information related to pesticide use, and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.
- For further information or to report suspected resistance contact Drexel Chemical Company at (901) 774-4370. You can also contact your pesticide distributor or university extension specialist to report resistance.

USE RESTRICTIONS

- Do not use this product on crops grown in the greenhouse except as directed in the "ORNAMENTAL PLANTS" section of this label.
- Do not combine this product in spray tank with pesticides surfactants or fertilizers unless prior use has shown the combination to be physically compatible, effective and non-injurious under your conditions of use.
- Do not combine this product with *Bacillus thuringiensis* (e.g., Dipel®) or spreader/sticker (e.g., Latron B-1956® or Latron AG 98®) as phytotoxicity may result from the combination when applied to some crops listed on this label.
- Do not apply within 150 feet (for aerial applications) or 25 feet (for ground applications) of marine/estuarine water bodies unless there is an untreated buffer area of that width between the area to be treated and the water body.
- This product is NOT for residential use.

SPRAY DRIFT PRECAUTIONS

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 75% the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the airstream 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 "SPRAY DRIFT MANAGEMENT" section.

Spray Drift Management

This section is advisory in nature and does not supersede the mandatory label requirements.

Importance of 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 the "Wind", "Temperature and Humidity", and "Temperature Inversions" sections of this label).

Controlling Droplet Size

- Volume: Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with the higher rated flows produce larger droplets.
- Pressure: Use the lower spray pressures listed for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. 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 backwards, parallel to the airstream, will produce larger droplets than other orientations. Significant deflection from the 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 larger droplets than other nozzle types.

Boom Length

For some use patterns, reducing the effective boom length to less than three-fourths of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height

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

Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downwind. 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. Increase swath adjustment distance with increasing drift potential (higher wind, smaller droplets, etc.).

Wind

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

Apply this product 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).

APPLICATION INSTRUCTIONS

Important: Slowly invert container several times to assure uniform mixture.

Dosage rates on this label indicate pints of this product per acre unless otherwise stated. Under conditions favoring disease development, use the higher rate specified and the shorter application intervals.

Apply this product in sufficient water to obtain adequate coverage of foliage. Volume of spray to be used will vary with crop and amount of plant growth.

For Field and Row crops, spray volume usually will range from 20 to 150 gallons per acre for dilute sprays and 5 to 10 gallons per acre for concentrate ground sprays and aircraft applications.

For Tree and Orchard crops, apply this product in sufficient water and with proper calibration to obtain uniform coverage of tree canopy. For Fruit and Nut bearing crops, the maximum volume is 300 gallons per acre unless otherwise stated in the specific use directions.

For Conifers, the maximum volume is 100 gallons per acre.

TANK-MIXING

This product may be used in tank-mixture with other pesticide product(s), surfactants or fertilizers, however, if compatibility, effectiveness, phytotoxicity or prior use is not known, test the tank-mix combination on a small scale before using.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank-mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank-mixture.

Add slowly the required amount of this product into the spray tank during filling. With concentrate sprays, pre-mix the required amount of this product 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.

APPLICATION AND CALIBRATION TECHNIQUES FOR CHEMIGATION

Apply this product only through sprinkler irrigation systems including center pivot, motorized lateral move, traveling gun, solid set or portable (wheel move side roll end tow or hand move) irrigation system(s). 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 non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service Specialists, equipment manufacturers or other irrigation experts.

Do not apply this product through irrigation systems connected to a public water system. 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 per year.

Controls for both irrigation water and pesticide injection systems must be functionally interlocked so as to automatically terminate pesticide injection when the irrigation water pump motor stops. A person knowledgeable of the irrigation system and responsible for its operation shall be present so as to discontinue pesticide injection and make necessary adjustments should the need arise.

The irrigation water pipeline must be fitted with a functional automatic quick closing check valve to prevent the flow of treated irrigation water back toward the water source. The pipeline must also be fitted with a vacuum relief valve and low pressure dram located between the irrigation water pump and the check valve to prevent back-siphoning of treated irrigation water into the water source.

Always inject this product into irrigation water after it discharges from the irrigation pump and after it passes through the check valve. Never inject pesticides into the intake line on the suction side of the pump.

Pesticide injection equipment must be fitted with a functional normally closed solenoid-operated valve located on the intake side of the injection pump. Interlock this valve to the power system so as to prevent fluid from being withdrawn from the chemical supply tank when the irrigation system is either automatically or manually turned off.

The pesticide injection pipeline must contain a functional automatic quick-closing check valve to prevent the flow of fluid back toward the injection pump.

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.

Spray mixture in the chemical supply tank must be agitated at all times otherwise settling and uneven application may occur. Do not apply when wind speed favors drift beyond the area intended for treatment. 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.

This product may be used through two basic types of sprinkler irrigation systems as outlined in Sections A and B below. Determine which type of system is in place then refer to the appropriate directions provided for each type.

A. Center Pivot, Motorized Lateral Move and Traveling Gun Irrigation Equipment

For injection of pesticides, these continuously moving systems must use a positive displacement injection pump of either diaphragm or piston type constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock and capable of injection at pressures approximately 2 to 3 times those encountered within the irrigation water line. Venturi applicator units cannot be used on these systems.

Thoroughly mix specified amount of this product for acreage to be covered into same amount of water used during calibration and inject into system continuously for one revolution or run. Mixture in the chemical supply tank must be continuously agitated during the injection run. Shut off injection equipment after one revolution or run but continue to operate irrigation system until this product has been cleared from last sprinkler head.

B. Solid Set and Portable (Wheel Move Side Roll, End Tow or Hand Move) Irrigation Equipment

With stationary systems, an effectively designed in-line Venturi applicator unit is preferred which is constructed of materials that are compatible with pesticides. However, a positive-displacement pump can also be used.

Determine acreage covered by sprinkler. Fill tank of injection equipment with water and adjust flow to use contents over a 30 to 45 minute period. Mix desired amount of this product for acreage to be covered with water so that the total mixture of this product plus water in the injection tank is equal to the 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. Agitation is recommended. This product 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 this product has been cleared from last sprinkler head.

APPLICATION DIRECTIONS

ASPARAGUS

Disease(s)/ Fungus	This Product Per Acre	Use Instructions
Cercospora blight (<i>Cercospora asparagi</i>)	2.83 to 5.66 pts. (1.5 to 3.0 lbs. a.i.)	By ground application. Apply in water volumes of 25 to 50 gals./Ac. Begin applications following final harvest of spears. Repeat at 14 to 28 day intervals depending on disease pressure. Minimum retreatment interval is 14 days. Use the higher rate in the range and shorter interval if disease severity begins to increase or weather conditions favor disease development.
Purple spot (<i>Pleospora herbarum</i>)		
Rust (<i>Puccinia asparagi</i>)		

USE RESTRICTIONS:

- Do not apply more than 16.98 pts. of this product (9 lbs. a.i.) per acre per year.
- Do not apply within 190 days (120 days in AZ and CA) of harvest of spears in the following year.

BEANS (DRY)*

Adzuki, Blackeyed pea, Broad, Catjang, Chickpea (Garbanzo), Cowpea, Dry, Jackbean, Kidney, Lablab, Lima, Lupin, Lupin grain, Moth, Mungbean, Navy, Pink, Pinto, Rice, Runner, Southern pea, Tepary, Urd, Yardlong

*(Except Soybeans)

Disease(s)/ Fungus	This Product Per Acre	Use Instructions
Anthrachnose (<i>Colletotrichum lindemuthianum</i>)	1.88 to 2.83 pts. (1 to 1.5 lbs. a.i.)	By ground, air or chemigation applications. Apply in sufficient water to obtain adequate coverage. Begin applications at first onset of disease which may occur as early as 2 to 4 weeks before flowering. Repeat at 7 to 10 day intervals. Use the higher rate in the range and shorter interval if disease severity begins to increase or weather conditions favor disease development. For use only on Beans to be harvested dry with pods removed.
Ascochyta blight (<i>Ascochyta phaseolorum</i>)		
Cercospora leaf blotch (<i>Cercospora cruenta</i>)		
Downy mildew (<i>Phytophthora nicotianae</i>)		
Rust (<i>Uromyces appendiculatus</i>)		

USE RESTRICTIONS:

- Do not apply more than 11.32 pts. of this product (6 lbs. a.i.) per acre per year.
- Do not apply within 14 days of harvest.

BEANS (SNAP)

Disease(s)/ Fungus	This Product Per Acre	Use Instructions
Botrytis blight (Gray mold) (<i>Botrytis cinerea</i>)	4.25 pts. (2.25 lbs. a.i.)	By ground, air or chemigation applications. Apply in sufficient water to obtain adequate coverage. Begin applications during early bloom stage or when disease first threatens. Repeat as necessary to maintain control. Minimum retreatment interval is 7 days. Use the higher rate in the range if disease severity begins to increase or weather conditions favor disease development.
Rust (<i>Uromyces appendiculatus</i>)	1.88 to 4.25 pts. (1 to 2.25 lbs. a.i.)	

USE RESTRICTIONS:

- Do not apply more than 16.98 pts. of this product (9 lbs. a.i.) per acre per year.
- Do not apply within 7 days of harvest.

BLUEBERRIES

Disease(s)/ Fungus	This Product Per Acre	Use Instructions
Suppression: Anthracnose (Ripe rot) (<i>Colletotrichum gloeosporioides</i>)	4.25 to 5.66 pts. (2.25 to 3 lbs. a.i.)	By ground or air applications. Use as part of an overall disease management strategy which includes alternation with a fungicide with a different mode of action. Diseases may only be suppressed and russetting may occur under heavy disease pressure or unfavorable environmental conditions. Apply in sufficient water to obtain adequate coverage, normally 20 to 100 gals./Ac. Begin applications at budbreak (green tip) and repeat at 10 day intervals through early bloom. Under heavy disease pressure, use the higher rate in the range.
Suppression: Mummy berry (<i>Monilia vaccinii- corymbosi</i>)		
Septoria leaf spot (<i>Septoria albopunctata</i>)	4.25 to 5.66 pts. (2.25 to 3 lbs. a.i.)	
Rust (<i>Pucciniastrum vaccinii</i>)		
USE RESTRICTIONS: • Do not apply more than 16.98 pts. of this product (9 lbs. a.i.) per acre per year. • Do not apply after full bloom (except for foliar use after harvest) or within 42 days of harvest.		

BROCCOLI, BRUSSELS SPROUTS, CABBAGE, CAULIFLOWER, CHINESE BROCCOLI, CHINESE CABBAGE (Tight-headed Var. only)

Disease(s)/ Fungus	This Product Per Acre	Use Instructions
Alternaria leaf spot (<i>Alternaria</i> spp.)	2.21 pts. (1.17 lbs. a.i.)	By ground, air or chemigation applications. Apply 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 to maintain control.
Downy mildew (<i>Peronospora parasitica</i>)		
Ringspot (<i>Mycosphaerella brassicicola</i>) (CA only)	2.83 pts. (1.5 lbs. a.i.)	By ground, air or chemigation applications. 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 to maintain control.
USE RESTRICTIONS: <ul style="list-style-type: none"> Do not apply more than 22.6 pts. of this product (12 lbs. a.i.) per acre per year. Do not apply within 7 days of harvest. 		

CARROTS

Disease(s)/ Fungus	This Product Per Acre	Use Instructions
Cercospora leaf spot (<i>Cercospora carotae</i>)	2.21 to 2.83 pts. (1.17 to 1.5 lbs. a.i.)	By ground, air or chemigation applications. Apply in sufficient water to obtain adequate coverage. Begin applications when disease threatens. Repeat at 7 to 10 day intervals to maintain control. Use the higher rate in the range and shorter interval if disease severity begins to increase or weather conditions favor disease development.
Alternaria leaf blight (<i>Alternaria dauci</i>)		
USE RESTRICTIONS: <ul style="list-style-type: none">• Do not apply more than 28.30 pts. of this product (15 lbs. a.i.) per acre per year.• May be applied to the day of harvest.		

CELERY

Disease(s)/ Fungus	This Product Per Acre	Use Instructions
Basal stalk rot (<i>Rhizoctonia solani</i>)	2.83 to 4.25 pts. (1.5 to 2.25 lbs. a.i.)	By ground, air or chemigation applications.
Early blight (<i>Cercospora apii</i>)		Apply in sufficient water to obtain adequate coverage. Start applications when transplants are set in the field.
Late blight (<i>Septoria apicola</i>)		Repeat at 7 day intervals as needed to maintain control. Use the higher rate in the range if disease severity begins to increase or weather conditions favor disease development.
Suppression (7 day schedule): Pink rot (<i>Sclerotinia sclerotiorum</i>)	4.25 pts. (2.25 lbs. a.i.)	By ground, air or chemigation applications.
Early blight (<i>Cercospora apii</i>)	2.21 to 2.83 pts. (1.17 to 1.5 lbs. a.i./ 100 gals.)	For Celery seedbeds, apply in sufficient water to obtain adequate coverage twice weekly or as needed to maintain control. Start applications shortly after crop emergence. Use the higher rate in the range if disease severity begins to increase or weather conditions favor disease development.
Late blight (<i>Septoria apicola</i>)		
USE RESTRICTIONS:		
• Do not apply more than 33.96 pts. of this product (18 lbs. a.i.) per acre per year.		
• Do not apply within 7 days of harvest.		

CORN (Sweet, Grown for Seed)

Disease(s)/ Fungus	This Product Per Acre	Use Instructions
Helminthosporium leaf blights (<i>Helminthosporium</i> spp.)	1.13 to 2.83 pts. (0.6 to 1.5 lbs. a.i.)	By ground, air or chemigation applications. Apply in sufficient water to obtain adequate coverage. Begin applications when conditions favor disease development. Repeat at 7 day intervals as needed to maintain control. Under severe disease conditions, use 2.25 to 2.75 pts. of this product per acre.
Rust (<i>Puccinia</i> spp.)		

USE RESTRICTIONS:

- Do not apply more than 16.98 pts. of this product (9 lbs. a.i.) per acre per year.
- 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 areas.
- Do not ensile treated Corn or use as livestock forage.

CRANBERRY

Disease(s)/ Fungus	This Product Per Acre	Use Instructions
Fruit rots	5.66 to 9.25 pts. (3 to 4.9 lbs. a.i.)	By ground, air or chemigation applications. Apply at early bloom. Repeat at 10 to 14 day intervals. Under severe disease conditions, use the 9.25 pts./Ac. on a 10 day schedule. When applying by chemigation, apply in 300 gals. of water per acre through solid set systems only.
Lophodermium leaf/twig blight (<i>Lophodermium</i> <i>hypophyllum</i>)		
Upright dieback (<i>Phomopsis</i> <i>vaccinii</i>)	5.66 to 9.25 pts. (3 to 4.9 lbs. a.i.)	By ground, air or chemigation applications. Apply in sufficient water to obtain coverage of uprights and runners. Make the first application prior to bloom when shoots begin growth in the Spring. Make additional applications at 10 to 14 day intervals. When applying by chemigation, apply in 300 gals. of water per acre through solid set systems only. Use the higher rate in the range and shorter interval if disease severity begins to increase or weather conditions favor disease development.
USE RESTRICTIONS: <ul style="list-style-type: none"> Do not apply more than 28.30 pts. of this product (15 lbs. a.i.) per acre per year. Do not apply within 50 days of harvest. Do not apply to beds when flooded or allow release of irrigation water from beds for at least 3 days following application. 		

CUCURBITS: CANTALOUPE, CUCUMBER, HONEYDEW MELON, MUSKMELON, PUMPKIN, SQUASH, WATERMELON

Disease(s) /Fungus	This Product Per Acre	Use Instructions
Anthrachnose (<i>Colletotrichum</i> spp.)	2.21 to 2.83 pts. (1.17 to 1.5 lbs. a.i.)	By ground, air or chemigation applications. Apply in sufficient water to obtain adequate coverage. Begin applications when plants are in first true leaf stage or when conditions are favorable for disease development.
Downy mildew (<i>Ppseudoperonospora cubensis</i>)		
Target spot (<i>Cornynespora cassicola</i>)		
Alternaria leaf blight (<i>Alternaria cucumerina</i>)	2.83 to 4.25 pts. (1.5 to 2.25 lbs. a.i.)	Repeat applications at 7 day intervals. Use the higher rate in the range if disease severity begins to increase or weather conditions favor disease development. Important: 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: • intense heat and sunlight • drought conditions • poor vine canopy • 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.
Alternaria leaf spot (<i>Alternaria alternata</i>)		
Cercospora leaf spot (<i>Cercospora citrullina</i>)		
Gummy stem blight / Stem decline (<i>Didymella bryoniae</i>)		
Powdery mildew (<i>Sphaerotheca</i> sp.)		
Scab (<i>Cladosporium cucumerinum</i>)		
USE RESTRICTIONS: • Do not apply more than 29.72 pts. of this product (15.75 lbs. a.i.) per acre per year. • May be applied to the day of harvest.		

GRASSES GROWN FOR SEED

Disease(s) /Fungus	This Product Per Acre	Use Instructions
Bipolaris and Dreschlera leaf spots	1.42 to 2.21 pts. (0.75 to 1.17 lbs. a.i.)	By ground, air or chemigation applications. Apply in sufficient water to obtain adequate coverage. Begin applications during stem elongation when conditions favor disease development. Re-apply at flag (top) leaf emergence. Repeat at 14 day intervals. Use the higher rate in the range if disease severity begins to increase or weather conditions favor disease development.
Glume blotch		
Rust (Leaf, Stem, Stripe)		
Septoria leaf spot (<i>Septoria</i> spp.)		
Selenophoma (Eyespot)	1.42 to 2.83 pts. (0.75 to 1.5 lbs. a.i.)	
USE RESTRICTIONS: <ul style="list-style-type: none"> Do not apply more than 8.49 pts. of this product (4.5 lbs. a.i.) per acre per year. Do not apply within 14 days of harvest. Do not allow livestock to graze in treated areas or feed hay produced before harvest. Feeding of treated plant parts after harvest of seed is allowed. 		

LEEK

Disease(s)/ Fungus	This Product Per Acre	Use Instructions
Botrytis leaf blight (<i>Botrytis</i> spp.)	2.21 to 4.25 pts. (1.17 to 2.25 lbs. a.i.)	By ground, air or chemigation applications.
Purple blotch (<i>Alternaria porii</i>)		Apply 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.
Suppression: Downy mildew (<i>Peronospora destructor</i>)		Use the higher rate in the range and a 7 day schedule of applications when heavy dew or rain persists.
USE RESTRICTIONS:		
<ul style="list-style-type: none">• Do not apply more than 12.73 pts. of this product (6.75 lbs. a.i.) per acre per year.• Do not apply within 14 days of harvest.		

MANGO

Disease(s)/ Fungus	This Product Per Acre	Use Instructions
Anthrachnose (<i>Colletotrichum</i> spp.)	2.83 to 4.90 pts. (1.5 to 2.6 lbs. a.i.)	By ground or air applications. Apply in a water volume of 20 to 300 gals./Ac. Begin applications at early bloom and repeat on a 7 to 14 day intervals until early fruit development. Begin the season with the 2.83 pts. rate on a 14 day intervals. If disease pressure is severe, use the higher rate in the range and shorter interval. Use during bloom and fruit set up until fruit reach 1 inch diameter. May cause spotting on fruit larger than 1 inch in diameter.
USE RESTRICTIONS: <ul style="list-style-type: none">Do not apply more than 45.28 pts. of this product (24 lbs. a.i.) per acre per year.Do not apply within 21 days of harvest.		

MINT

Disease(s)/ Fungus	This Product Per Acre	Use Instructions
Rust (<i>Puccinia menthae</i>)	1.88 pts. (1 lb. a.i.)	By ground or air applications. Apply in sufficient water to obtain adequate coverage, normally 20 to 150 gals./Ac. for dilute sprays and 5 to 10 gals./Ac. for concentrate ground and aircraft applications. Begin applications when emerging plants are 4 to 8 inches high. Repeat at 7 to 10 day intervals to maintain control.
Septoria leaf spot (<i>Septoria menthae</i>)		
USE RESTRICTIONS: <ul style="list-style-type: none">• Do not apply more than 5.66 pts. of this product (3 lbs. a.i.) per acre per year.• Do not apply within 80 days of harvest.• Do not feed fresh or extracted Mint hay from treated fields to livestock.		

MUSHROOM

Disease(s)/ Fungus	This Product	Use Instructions
Verticillium brown spot (<i>Verticillium</i> spp.)	4 to 7.75 fl. ozs. /1,000 sq. ft. (0.1325 to 0.2567 lb. a.i./1,000 sq. ft.)	Apply as a drench to the Mushroom bed surface in at least 12.5 gals. of water per 1,000 sq. ft. of Mushroom bed. Make two applications as follows: <ul style="list-style-type: none">• First application - apply 7.75 fl. ozs. of this product within 2 days of top-dressing the spawn colonized mushroom compost with a casing layer.• Second application - apply 4 fl. ozs. of this product at pinning.
Dry bubble		
USE RESTRICTIONS: <ul style="list-style-type: none">• Do not apply more than 11.75 fl. ozs. of this product (0.4 lb. a.i.) per 1,000 sq. ft. per cropping cycle.• Do not make more than 2 applications per cropping cycle.• Do not apply within 5 days of harvest.		

ONIONS (Dry Bulb) & GARLIC

Disease(s)/ Fungus	This Product Per Acre	Use Instructions
Botrytis leaf blight or blast (<i>Botrytis</i> spp.)	1.42 to 4.25 pts. (0.75 to 2.25 lbs. a.i.)	By ground, air or chemigation applications. Minimum retreatment interval is 7 days.
Purple blotch (<i>Alternaria porii</i>)		Apply in sufficient water to obtain thorough coverage of tops. This product can be used with disease monitoring systems which adjust fungicide rates and frequency of application according to disease hazard. Apply as follows: <ul style="list-style-type: none">• Low disease hazard and before infection: 1.42 pts./Ac. at 10 day intervals• Low disease hazard and some disease present: 2 pts./Ac. at 7 to 10 day intervals• High disease hazard: 4.25 pts./Ac. at 7 day intervals For suppression of Neck rot (<i>Botrytis</i> spp.) during storage, apply a minimum of 3 applications at 7 day intervals prior to lifting using 2 to 4.25 pts./Ac.
Suppression: Botrytis neck rot (<i>Botrytis</i> spp.)		
Suppression: Downy mildew (<i>Peronospora destructor</i>)		
USE RESTRICTIONS: <ul style="list-style-type: none">• Do not apply more than 28.30 pts. of this product (15 lbs. a.i.) per acre per year.• Do not apply within 7 days of harvest.		

ONIONS (Green Bunching, Grown for Seed), GARLIC (Grown for Seed), SHALLOTS

Disease(s)/ Fungus	This Product Per Acre	Use Instructions
Botrytis leaf blight (<i>Botrytis</i> spp.)	2.21 to 4.25 pts. (1.17 to 2.25 lbs. a.i.)	By ground, air or chemigation applications.
Purple blotch (<i>Alternaria porii</i>)		Apply in sufficient water to obtain thorough coverage of tops. Begin applications prior to favorable infection periods. Repeat at 7 to 10 day intervals for as long as conditions favor disease.
Suppression: Downy mildew (<i>Peronospora destructor</i>)		Use the higher rate in the range and a 7 day schedule of applications when heavy dew or rain persists.
USE RESTRICTIONS:		
<ul style="list-style-type: none">• Do not apply more than 12.64 pts. of this product (6.7 lbs. a.i.) per acre per year.• Do not apply with 7 days of harvest of Garlic.• Do not apply within 14 days of harvest of green bunching Onions or Shallots.		

PAPAYA

Disease(s)/ Fungus	This Product Per Acre	Use Instructions
Alternaria fruit spot (<i>Alternaria alternata</i>)	2.21 to 4.25 pts. (1.17 to 2.25 lbs. a.i.)	By ground applications. Apply in sufficient water to obtain adequate coverage of fruit and leaves. Begin applications when conditions favor development of disease. Continue treatments at 14 day intervals until weather conditions no longer favor disease development. Use the higher rate in the range if disease severity begins to increase or weather conditions favor disease development.
Anthrachnose (<i>Colletotrichum</i> spp.)		
Stem end rot (<i>Alternaria alternata</i>) (<i>Colletotrichum</i> spp.)		
USE RESTRICTIONS: <ul style="list-style-type: none">• Do not apply more than 12.73 pts. of this product (6.75 lbs. a.i.) per acre per year.• May be applied to the day of harvest.		

PARSNIP

Disease(s)/ Fungus	This Product Per Acre	Use Instructions
Alternaria leaf spot (<i>Alternaria</i> spp.)	2.21 to 2.83 pts. (1.17 to 1.5 lbs. a.i.)	By ground, air or chemigation applications.
Anthrachnose (<i>Colletotrichum</i> spp.)		Apply in sufficient water to obtain adequate coverage. Begin applications at the first sign of disease or when conditions are favorable for infection. Continue treatments at 7 to 10 day intervals.
Botrytis blight (Gray mold) (<i>Botrytis cinerea</i>)		Use the higher rate in the range and shorter interval if disease severity begins to increase or weather conditions favor disease development.
Bottom rot (<i>Rhizoctonia</i> spp.)		
Downy mildew (<i>Plasmopara crustosa</i>)		
USE RESTRICTIONS:		
<ul style="list-style-type: none">Do not apply more than 11.32 pts. of this product (6 lbs. a.i.) per acre per year.Do not apply within 10 days of harvest.		

PEANUTS

Disease(s)/ Fungus	This Product Per Acre	Use Instructions
Early leaf spots (<i>Cercospora arachidicola</i>)	1.42 to 2.21 pts. (0.75 to 1.17 lbs. a.i.)	By ground, air or chemigation applications. Apply in sufficient water to obtain adequate 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 occurs, apply 2.21 pts./Ac. of this product at 14 day intervals for the remainder of the season.
Late leaf spot (<i>Cercosporidium personatum</i>)		
Pepper spot (<i>Leptosphaerulina crassiasca</i>)		
Rust (<i>Puccinia arachidis</i>)	2.21 pts. (1.17 lbs. a.i.)	If applying by chemigation, use 2.21 pts. of this product per acre. It is advised to alternate chemigation applications with ground or aerial applications.
Web blotch (<i>Phoma arachidicola</i>)		
USE RESTRICTIONS:		
<ul style="list-style-type: none">• Do not apply more than 16.98 pts. of this product (9 lbs. a.i.) per acre per year.• Do not apply within 14 days of harvest.• Do not allow livestock to graze treated areas.• Do not feed hay or threshings from treated fields to livestock.		

POTATOES

Disease(s)/ Fungus	This Product Per Acre	Use Instructions
Black dot (<i>Colletotrichum coccodes</i>)	1.13 pts. (0.6 lb. a.i.)	By ground, air or chemigation applications. Begin applications at the low rate when vines are first exposed and leaf wetness occurs. Repeat applications at 5 to 10 day intervals. Then begin applying the higher specified rates at 5 to 10 days intervals when any one of the following events occur: • Vines close within the rows • Late blight forecasting measures 18 Disease Severity Values (DSV) • The crop reaches 300 P-days Increase water spray volume as canopy density increases. Use the highest rate and shortest interval when plants are rapidly growing and disease conditions are severe. DO NOT exceed a 10 day interval between applications when using chemigation.
Botrytis vine rot (<i>Botrytis cinerea</i>)	-Then -	
Early blight (<i>Alternaria solani</i>)	1.42 to 2.21 pts. (0.75 to 1.17 lbs. a.i.)	
Late blight (<i>Phytophthora infestans</i>)		
USE RESTRICTIONS: • Do not apply more than 21.22 pts. of this product (11.25 lbs. a.i.) per acre per year. • Do not apply within 7 days of harvest.		

SOYBEANS

Disease(s) /Fungus	This Product Per Acre	Use Instructions
Anthracnose (<i>Colletotrichum truncatum</i>) Cercospora leaf blight (<i>Cercospora kikuchii</i>) Diaprothe pod and stem rot (<i>Diaprothe phaseolorum</i>) Frogeye leaf spot (<i>Cercospora sojina</i>) Purple seed stain (<i>Cercospora kikuchii</i>) Septoria brown spot (<i>Septoria glycines</i>) Suppression: Rust (<i>Phakopsora pachyrhizi</i>)	2.21 to 3.21 pts. (1.17 to 1.7 lbs. a.i.)	By ground, air or chemigation applications. Apply in sufficient water to obtain complete coverage using at least 5 gals. of water per acre for aerial application. Minimum retreatment interval is 14 days. Use the higher rate in the range if disease severity begins to increase or weather conditions favor disease development. Two application program: For determinate varieties, make the first application at early pod set stage (R3) and the second application at seed formation (R5). For indeterminate varieties, make the first application when largest pods are 1 to 1.25 inches in length. Make the second application 14 days later.
Anthracnose (<i>Colletotrichum truncatum</i>) Cercospora leaf blight (<i>Cercospora kikuchii</i>) Diaprothe pod and stem rot (<i>Diaprothe phaseolorum</i>) Frogeye leaf spot (<i>Cercospora sojina</i>) Purple seed stain (<i>Cercospora kikuchii</i>) Septoria brown spot (<i>Septoria glycines</i>) Suppression: Rust (<i>Phakopsora pachyrhizi</i>)	1.42 to 2.83 pts. (0.75 to 1.5 lbs. a.i.)	By ground, air or chemigation applications. Apply in sufficient water to obtain complete coverage using at least 5 gals. of water per acre for aerial application. Minimum retreatment interval is 14 days. Use the higher rate in the range if disease severity begins to increase or weather conditions favor disease development. Use the three application program in areas having a history of moderate to severe disease intensity. Three application program: For determinate varieties, make the first application at the beginning of flowering (R1), the second at early pod set (R3) and the third at beginning of seed formation (R5). For indeterminate varieties, make the first application one week after first flowering and continue applications at 14 day intervals.
Stem canker (<i>Diaporthe phaseolorum</i>)	1.42 pts. (0.75 lb. a.i.)	Apply with 10 to 20 gals. 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 third applications. Make all applications at 14 day intervals.
USE RESTRICTIONS: <ul style="list-style-type: none"> Do not apply more than 8.49 pts. of this product (4.5 lbs. a.i.) per acre per year. Do not apply within 6 weeks of harvest. Do not feed hay or threshing from treated fields to livestock. 		

TOMATOES

Disease(s)/ Fungus	This Product Per Acre	Use Instructions
Foliage: Early blight (<i>Alternaria solani</i>)	1.88 to 2.83 pts. (1 to 1.5 lbs. a.i.)	By ground, air or chemigation applications. Apply in sufficient water to obtain adequate coverage. Begin applications when dew or rain occurs and disease threatens. Apply on a 7 to 10 day intervals for foliage diseases. For fruit diseases, begin at fruit set and apply on a 7 to 14 day intervals. Use the highest rate in the range and shorter interval when disease conditions are severe.
Foliage: Gray leaf mold (<i>Fluvia fluva</i> ; <i>Cladosporium</i>)		
Foliage: Gray leaf spot (<i>Stemphyllium botryosum</i>)		
Foliage: Late blight (<i>Phytophthora infestans</i>)		
Foliage: Septoria leaf spot (<i>Septoria lycopersici</i>)		
Foliage: Target spot (<i>Corynespora cassicola</i>)		
Fruit: Alternaria fruit rot (Black mold) (<i>Alternaria alternata</i>)	2.83 to 3.96 pts. (1.5 to 2.1 lbs. a.i.)	
Fruit: Anthracnose (<i>Colletotrichum spp.</i>)		
Fruit: Botrytis gray mold (<i>Botrytis cinerea</i>)		
Fruit: Late blight fruit rot (<i>Phytophthora infestans</i>)		
Fruit: Rhizoctonia fruit rot (<i>Rhizoctonia solani</i>)		
USE RESTRICTIONS: <ul style="list-style-type: none">• Do not apply more than 28.30 pts. of this product (15 lbs. a.i.) per acre per year.• May be applied to the day of harvest.		

TREES AND ORCHARD CROPS

Apply this product in sufficient water and with proper calibration to obtain uniform coverage of Tree canopy. For Fruit and Nut bearing crops, the maximum volume is 300 gallons per acre unless indicated otherwise in the specific use directions. For Conifers, the maximum volume is 100 gallons per acre.

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, this product may be applied with aircraft using at least 20 gallons of spray per acre. The minimum volume for application by aircraft to Conifer stands and Christmas trees is 10 gallons per acre.

When concentrate sprays are used or when treating non-bearing or immature trees, the lower rate specified may be used.

USE RESTRICTION

Do not allow livestock to graze in treated areas.

ALMONDS

Disease(s)/ Fungus	This Product		Use Instructions
	Per Acre	Per 100 Gals.*	
Anthracnose (<i>Colletotrichum acutatum</i>)	5.66 pts. (3 lbs. a.i.)	1.88 pts. (1 lb. a.i.)	By ground or air applications.
Brown rot blossom and twig blight (<i>Monilinia</i> spp.)			Apply with water volumes of 20 to 300 gals./Ac. For Brown rot blossom and twig blight, begin application at popcorn (pink bud) and at full bloom. If weather is still conducive for disease development, another application may be made at petal fall.
Shot hole (<i>Wilsonomyces carpophilus</i>)			To control Shothole, make an application in Autumn at leaf fall. In the Spring, make the first application at budbreak followed by an application at shuck split to control nut infections and to control Scab.
Scab (<i>Venturia carpophila</i>)			For control of Anthracnose, apply 5.75 pts. of this product. *To be used only with full dilute spray volume.
USE RESTRICTIONS:			
<ul style="list-style-type: none">• Do not apply more than 35.37 pts. of this product (18.75 lbs. a.i.) per acre per year (leaf fall through shuck split).• Do not apply within 150 days of harvest			

APRICOT, CHERRY, NECTARINE, PEACH, PLUM, PRUNE

Disease(s)/ Fungus	This Product		Use Instructions
	Per Acre	Per 100 Gals.*	
Leaf curl (<i>Taphrina deformans</i>)	4.34 to 5.85 pts. (2.3 to 3.1 lbs. a.i.)	1.42 to 1.88 pts. (0.75 to 1 lb. a.i.)	By ground or air applications. For best control, 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. Apply once or twice more in mid to late Winter before bud swell. If leaf fall application is not practical, application of this product for control of Leaf curl may be made at any time prior to bud swell the following Spring. Where Shothole occurs, also apply at budbreak to protect newly emerging leaves and at shuck split to prevent fruit infections. Minimum retreatment interval is 10 days. *Volumetric rates to be used only with full dilute spray volume.
Shot hole (<i>Wilsonomyces carpophilus</i>)			
(Continued)			

APRICOT, CHERRY, NECTARINE, PEACH, PLUM, PRUNE (Cont.)

Disease(s)/ Fungus	This Product		Use Instructions
	Per Acre	Per 100 Gals.*	
Lacy (russet) scab (Plums/Prunes) Brown rot blossom blight (<i>Monilinia</i> spp.)	4.34 to 5.85 pts. (2.3 to 3.1 lbs. a.i.)	1.42 to 1.88 pts. (0.75 to 1 lb. a.i.)	By ground or air applications.
			Make one application at popcorn (pink red or early white bud) and a second application at full bloom. Use the higher rate in the range and make an additional application at petal fall if disease severity begins to increase or weather conditions favor disease development.
			*Volumetric rates to be used only with full dilute spray volume.
Black knot (<i>Apiosporina morbos</i> a) (Cherries/Plums) Cherry leaf spot (<i>Blumeriella jaapii</i>) Scab (<i>Cladosporium carpophilum</i>)			By ground or air applications.
			In addition to the bloom application listed above, make one application at shuck split. Do not apply this product 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 to 14 days later.
			Use the higher rate in the range if disease severity begins to increase or weather conditions favor disease development.
			*Volumetric rates to be used only with full dilute spray volume.
USE RESTRICTIONS:			
• Do not apply more than 29.06 pts. of this product (15.4 lbs. a.i.) per acre per year.			
• Minimum retreatment interval is 10 days.			
• May be applied through shuck split and may then be again applied after harvest as indicated.			

FILBERTS (HAZELNUTS)

Disease(s)/ Fungus	This Product		Use Instructions
	Per Acre	Per 100 Gals.*	
Eastern Filbert blight (<i>Anisogramma anomata</i>)	5.66 pts. (3 lbs. a.i.)	1.88 pts. (1 lb. a.i.)	By ground or air applications. Apply with water volumes of 20 to 300 gals./Ac. Begin applications at the onset of disease or when weather conditions favor disease development. Make applications on a 14 to 28 day schedule using the shorter interval under heavy disease pressure. *Volumetric rates to be used only with full dilute spray volume.
USE RESTRICTIONS: <ul style="list-style-type: none"> Do not apply more than 16.98 pts. of this product (9 lbs. a.i.) per acre per year during each growing season. Do not apply within 120 days of harvest. Do not apply through irrigation. Do not apply with oils, surfactants or fertilizers. Do not apply within 1 week of an oil-based pesticide application. 			

PASSION FRUIT

Disease(s)/ Fungus	This Product Per Acre	Use Instructions
Alternaria fruit and leaf spots (<i>Alternaria</i> spp.)	2.83 pts. (1.5 lbs. a.i.)	By ground applications. Apply in sufficient water to obtain adequate coverage of fruit and leaves. Begin applications when during late bloom. Repeat at 14 day intervals until weather conditions no longer favor disease development.
Anthracnose (<i>Colletotrichum</i> spp.)		
Cercospora fruit spot (<i>Cercospora</i> spp.)		
USE RESTRICTIONS: <ul style="list-style-type: none">• Do not apply more than 14.15 pts. of this product (7.5 lbs. a.i.) per acre per year.• Do not apply within 7 days of harvest.		

PISTACHIO

Disease(s)/ Fungus	This Product		Use Instructions
	Per Acre	Per 100 Gals.*	
Suppression: Alternaria late blight (<i>Alternaria alternata</i>)	8.49 pts. (4.5 lbs. a.i.)	4.25 pts. (2.25 lbs. a.i.)	By ground or air applications. Apply with water volumes of 20 to 200 gals./Ac. Make the first application at the beginning of the blossom period followed by an application at full bloom. Make additional applications as required on a 28 day schedule. For Septoria and Botrytis, use the higher rate if disease pressure is severe. Important: Use of this product may result in speckling or reddening of the fruit hull (epicarp). This effect is superficial and has not resulted in change in nut quality. *Volumetric rates to be used only with full dilute spray volume.
Botryosphaera blight (<i>Botryosphaera dothidea</i>)			
Botrytis blight (<i>Botrytis cinerea</i>)	5.66 to 8.49 pts. (3 to 4.5 lbs. a.i.)	2.83 to 4.25 pts. (1.5 to 2.25 lbs. a.i.)	
Septoria leaf spot (<i>Septoria pistacina</i>)			
USE RESTRICTIONS: <ul style="list-style-type: none">• Do not apply more than 42.45 pts. of this product (22.5 lbs. a.i.) per acre per year.• Do not apply within 14 days of harvest.			

CONIFERS (INCLUDING CHRISTMAS TREES)

For use in: 1) Conifer nursery beds; 2) Christmas tree and bough production plantations; and 3) Tree seed orchards.

Apply by ground or air in sufficient water and with proper calibration to obtain uniform coverage of tree canopy. The minimum volume for application by aircraft to Conifer stands and Christmas trees is 10 gallons per acre. The maximum volume is 100 gallons per acre.

Disease(s)/Fungus	This Product Per Acre	Use Instructions
Autoecious needle rust (Weir's cushion rust) (<i>Chrysomyxa weirii</i>)	7.87 pts. (4.17 lbs. a.i.)	Begin applications when 10% of buds have broken and twice thereafter at 7 to 10 day intervals.
Botrytis seedling blight, Phoma twig blight	2.21 to 3.96 pts. (1.17 to 2.1 lbs. a.i.)	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. Use the higher rate in the range if disease severity begins to increase or weather conditions favor disease development.
Cyclaneusma and Lophodermium needlecasts	3.96 to 7.87 pts. (2.1 to 4.17 lbs. a.i.)	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). Use the higher rate in the range and shorter interval if disease severity begins to increase or weather conditions favor disease development. During drought periods, applications may be suspended then resumed upon next occurrence of needle wetness.
(Continued)		

CONIFERS (INCLUDING CHRISTMAS TREES)

(Cont.)

Disease(s)/Fungus	This Product Per Acre	Use Instructions
Interior needle blight (<i>Mycosphaerella</i> spp. and <i>Phaeocryptopus nudus</i>)	3.96 to 7.87 pts. (2.1 to 4.17 lbs. a.i.)	One or two applications: In Christmas tree plantations or Conifer stands, make one application in the Spring when new shoot growth is 0.5 to 2 inches in length. Under high disease pressure, a second application may be made 10 to14 days after the first application. Use the higher rate in the range and shorter interval if disease severity begins to increase or weather conditions favor disease development. When using aerial applications, use the highest specified rate.
	2.21 to 3.96 pts. (1.17 to 2.1 lbs. a.i.)	Multiple applications: Make the first application in Spring when new shoot growth is 0.5 to 2 inches in length. Make additional applications at 3 to 4 week intervals until conditions no longer favor disease development. Use the higher rate in the range and shorter interval if disease severity begins to increase or weather conditions favor disease development. For use in nursery beds, apply the highest specified rate on a 3 week schedule. When using aerial applications, use the highest specified rate.
Rhabdocline needlecast	2.21 to 3.96 pts. (1.17 to 2.1 lbs. a.i.)	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. Use the higher rate in the range and shorter interval if disease severity begins to increase or weather conditions favor disease development. In nursery beds, use the high rate on a 3 week schedule.
Rhizosphaera needlecast (<i>Rhizosphaera</i> spp.)	7.87 pts. (4.17 lbs. a.i.)	Multiple applications: Make the first application in Spring when new shoot growth is 0.5 to 2 inches in length. Make additional applications at 3 to 4 week intervals until conditions no longer favor disease development. Use the higher rate in the range and shorter interval if disease severity begins to increase or weather conditions favor disease development. For use in nursery beds, apply the highest specified rate on a 3 week schedule. When using aerial applications, use the highest specified rate.
Scirrhia brown spot (<i>Mycosphaerella deamessii</i>)		
Scleroderris canker (<i>Gremmeniella abietina</i>)	2.21 to 3.96 pts. (1.17 to 2.1 lbs. a.i.)	
Sirococcus tip blight (<i>Sirococcus conigenus</i>)	2.69 to 4.91 pts. (1.43 to 2.6 lbs. a.i.)	
(Continued)		

CONIFERS (INCLUDING CHRISTMAS TREES)

(Cont.)

Disease(s)/Fungus	This Product Per Acre	Use Instructions
Swiss needlecast (<i>Phaeocryptopus gaeumannii</i>)	3.96 to 7.87 pts. (2.1 to 4.17 lbs. a.i.)	One or two applications: In Christmas tree plantations or Conifer stands, make one application in the Spring when new shoot growth is 0.5 to 2 inches in length. Under high disease pressure, a second application may be made 10 to 14 days after the first application. Use the higher rate in the range and shorter interval if disease severity begins to increase or weather conditions favor disease development. When using aerial applications, use the highest specified rate.
	2.21 to 3.96 pts. (1.17 to 2.1 lbs. a.i.)	Multiple applications: Make the first application in Spring when new shoot growth is 0.5 to 2 inches in length. Make additional applications at 3 to 4 week intervals until conditions no longer favor disease development. Use the higher rate in the range and shorter interval if disease severity begins to increase or weather conditions favor disease development. For use in nursery beds, apply the highest rate specified on a 3 week schedule. When using aerial applications, use the highest specified rate.
USE RESTRICTIONS: <ul style="list-style-type: none"> Do not apply more than 31.13 pts. of this product (16.5 lbs. a.i.) per acre per year. Do not use on forests. Do not allow livestock to graze in treated areas. 		

TURF AND ORNAMENTALS

Always use this product in conjunction with good Turf management practices.

Agricultural Use Sites (Sod farms, Golf courses, Nurseries and Greenhouses):

This product must not be applied within 150 feet (for aerial applications) or 25 feet (for ground applications) of marine/estuarine water bodies unless there is an untreated buffer area of that width between the area to be treated and the water body.

Non-Agricultural Use Sites:

For use to control Turf diseases on Golf courses, on Lawns around commercial (nonresidential) and industrial buildings, and on professional and collegiate athletic fields. For use to control diseases on Ornamentals on Golf courses and Landscape areas around residential, institutional, public, commercial and industrial buildings, parks, recreational areas and athletic fields.

Use Restrictions:

- Do not use on home lawns and Turf sites associated with apartment buildings, day care centers, playgrounds play fields, recreational park, athletic fields, athletic fields located on or next to schools (i.e., elementary middle and high schools), campgrounds, churches and theme parks.
- Do not use this product on Fine fescue turf due to the potential for phytotoxicity or Turfgrass injury.
- Do not mow or water after treatment until spray deposited on Turfgrass is thoroughly dry.

APPLICATION DIRECTIONS

Golf Course Fairways and Roughs, Lawns Around Commercial and Industrial Buildings, and Professional and Collegiate Athletic Field Turf

Apply this product in sufficient amount of water to provide complete coverage. This amount may vary from 30 to 450 gallons per acre (0.7 to 10 gals. of water per 1,000 sq. ft.).

Use Restrictions:

- Do not apply more than 49.0 pints of this product per acre (17.9 fl. ozs./1,000 sq. ft.) (26 lbs. a.i./Ac.) per year.
- Minimum retreatment interval for single application rates of up to 13.7 pints of this product per acre (5 fl. ozs./1,000 sq. ft.) (7.3 lbs. a.i./Ac.) is 7 days.
- Do not apply more than one application of a rate greater than 13.7 pints of this product per acre (5 fl. ozs./1,000 sq. ft.) (7.3 lbs. a.i./Ac.) per year.
- Maximum single application rate is 21.3 pints of this product per acre (7.8 fl. ozs./1,000 sq. ft.) (11.3 lbs. a.i./Ac.).

Golf Course Greens and Tees

Apply this product in sufficient amount of water to provide complete coverage. This amount may vary from 90 to 450 gallons per acre (2 to 10 gals. of water per 1,000 sq. ft.).

Use Restrictions - Golf Course Greens:

- Do not apply more than 137.7 pints of this product per acre (50.5 fl. ozs./1,000 sq. ft.) (73 lbs. a.i./Ac.) per year.
- Minimum retreatment interval for single application rates of up to 13.7 pints of this product per acre (5 fl. ozs./1,000 sq. ft.) (7.3 lbs. a.i./Ac.) is 7 days.
- Minimum retreatment interval after an application of a rate greater than 13.7 pints of this product per acre (5 fl. ozs./1,000 sq. ft.) (7.3 lbs. a.i./Ac.) is 14 days.
- Do not apply more than 2 applications of a rate greater than 13.7 pints of this product per acre (5 fl. ozs./1,000 sq. ft.) (7.3 lbs. a.i./Ac.) per year.

- Maximum single application rate is 21.3 pints of this product per acre (7.8 fl. ozs./1,000 sq. ft.) (11.3 lbs. a.i./Ac.).

Use Restrictions - Golf Course Tees:

- Do not apply more than 98.1 pints of this product per acre (36 fl. ozs./1,000 sq. ft.) (52 lbs. a.i./Ac.) per year.
- Minimum retreatment interval for single application rates of up to 13.7 pints of this product per acre (5 fl. ozs./1,000 sq. ft.) (7.3 lbs. a.i./Ac.) is 7 days.
- Minimum retreatment interval after an application of a rate greater than 13.7 pints of this product per acre (5 fl. ozs./1,000 sq. ft.) (7.3 lbs. a.i./Ac.) is 14 days.
- Do not apply more than 2 applications of a rate greater than 13.7 pints of this product per acre (5 fl. ozs./1,000 sq. ft.) (7.3 lbs. a.i./Ac.) per year.
- Maximum single application rate is 21.3 pints of this product per acre (7.8 fl. ozs./1,000 sq. ft.) (11.3 lbs. a.i./Ac.).

Sod Farms

Apply this product in 30 to 450 gallons of water per acre (0.7 to 10 gals. of water per 1,000 sq. ft.).

Use Restrictions:

- Sod farm turf treated with Chlorothalonil prior to harvest must be mechanically cut, rolled and palletized.
- Do not use this product on Sod farms at application rates greater than 24.5 pints (13 lbs. a.i.) per acre per year.
- Do not apply more than 24.5 pints of this product per acre (9 fl. ozs./1,000 sq. ft.) (13 lbs. a.i./Ac.) per year.
- The minimum retreatment interval for single application rates of up to 13.7 pints of this product per acre (5 fl. ozs./1,000 sq. ft.) (7.3 lbs. a.i./Ac.) is 7 days.
- Do not apply more than one application of a rate greater than 13.7 pints of this product per acre (5 fl. ozs./1,000 sq. ft.) (7.3 lbs. a.i./Ac.) per year.
- Maximum single application rate is 21.3 pints of this product per acre (7.8 fl. ozs./1,000 sq. ft.) (11.3 lbs. a.i./Ac.).

APPLICATION TIMING (ALL TURF)

Begin applications when conditions favor disease development. Repeat applications as long as these conditions persist. Under severe disease conditions, use the highest specified rate and shortest interval corresponding with the application schedule selected from the table below.

Disease(s)/Fungus Controlled	Application Interval (Days)	Pre-Disease Rates*			Post-Disease Rates*		
		Fl. Ozs. / 1,000 Sq. Ft.	Pts./Ac.	Lbs. A.I./Ac.	Fl. Ozs. / 1,000 Sq. Ft.	Pts./Ac.	Lbs. A.I./Ac.
Algae**	7 to 14	2.8 to 5	7.8 to 13.7	4.16 to 7.3	2.8 to 5	7.8 to 13.7	4.16 to 7.3
	14	-	-	-	5.7 to 7.8	15.6 to 21.3	8.32 to 11.3
Anthracnose (<i>Colletotrichum graminicola</i>)	7 to 14	4.2 to 5	11.6 to 13.7	6.2 to 7.3	-	-	-
	14	5.1 to 7.8	13.9 to 21.3	7.4 to 11.3	-	-	-
Brown patch (<i>Rhizoctonia solani</i> , <i>R. zeae</i> , <i>R. cerealis</i>)	7 to 14	2.8 to 5	7.8 to 13.7	4.16 to 7.3	-	-	-
	14	-	-	-	5.7 to 7.8	15.6 to 21.3	8.32 to 11.3
Copper spot (<i>Gloeocercospora sorghi</i>)	14	5.7 to 7.8	15.6 to 21.3	8.32 to 11.3	7.8	21.3	11.3
Dichondra leaf spot (<i>Alternaria</i> spp.) (CA only)	14	5.7 to 7.8	15.6 to 21.3	8.32 to 11.3	7.8	21.3	11.3
Dollar spot (<i>Sclerotinia homeocarpa</i> , <i>Lanzia</i> or <i>Moellerodiscus</i> spp.)	7 to 10	1.4*** to 2.8	3.9*** to 7.8	2.1*** to 4.16	-	-	-
	7 to 21	2.8 to 5	7.8 to 13.7	4.16 to 7.3	-	-	-
	14	-	-	-	5.7 to 7.8	15.6 to 21.3	8.32 to 11.3
Fusarium patch (<i>Geriachia</i>) (<i>Micordochium nivale</i>)**	21 to 28	7.8	21.3	11.3	-	-	-
Gray leaf spot (<i>Pyricularia grisea</i> , <i>Pyricularia oryzae</i>)	7 to 10	2.8 to 5	7.8 to 13.7	4.16 to 7.3	-	-	-
	-	-	-	-	5.7 to 7.8	15.6 to 21.3	8.32 to 11.3
Gray snow mold** (<i>Typhula</i> spp.)	30	7.8	21.3	11.3	-	-	-
Leaf spot, Melting out, Brown blight (<i>Bipolaris sorokiniana</i> ; <i>Drechslera</i> spp. including <i>D. poae</i> , <i>D. siccans</i> ; <i>Curvularia</i> spp.)	7 to 10	2.8	7.8	4.16	-	-	-
	7 to 21	2.8 to 5	7.8 to 13.7	4.16 to 7.3	-	-	-
	14	-	-	-	5.7 to 7.8	15.6 to 21.3	8.32 to 11.3
Red thread (<i>Laetisana fuciformis</i>)	7 to 10	2.8 to 5	7.8 to 13.7	4.16 to 7.3	-	-	-
	14	5.1 to 7.8	13.9 to 21.3	7.4 to 11.3	7.8	21.3	11.3
Stem rust (Bluegrass) (<i>Puccinia graminis</i>)	14	5.7 to 7.8	15.6 to 21.3	8.32 to 11.3	7.8	21.3	11.3

*For Golf course fairways and roughs, lawns around commercial and industrial buildings, and professional and collegiate athletic field Turf: Limit to one application per year at rates greater than 7.3 lbs. a.i./Ac. (13.7 pts./Ac. or 5 fl. ozs./1,000 sq. ft.) of this product.

For Golf course greens and tees: Limit to two applications per year at rates greater than 7.3 lbs. a.i./Ac. (13.7 pts./Ac. or 5 fl. ozs./1,000 sq. ft.) of this product.

**See specific use directions below.

***Low rate is not effective on intensively mowed Turfgrass such as Golf course greens and tees.

ALGAE

On Golf Course Fairways and Roughs, Lawns Around Commercial and Industrial Buildings, and Professional and Collegiate Athletic Field Turf AND/OR Golf Course Greens and Tees

- For prevention of Algae on Turfgrasses, apply this product at the rate of 7.8 to 13.7 pints per acre (2.8 to 5 fl. ozs./1,000 sq. ft.) (4.16 to 7.3 lbs. a.i./Ac.) on a 7 to 14 day schedule. Under severe Algae conditions, use the 13.7 pints per acre (5 fl. ozs./1,000 sq. ft.) rate and apply on a 7 day schedule.
- When Algae is well established, make every attempt to dry out the afflicted area. Once dry, spiking or verticutting should be done to enhance Turfgrass recovery in conjunction with an application of this product at the rate of 15.6 to 21.3 pints per acre (5.7 to 7.8 fl. ozs./1,000 sq. ft.) (8.32 to 11.3 lbs. a.i./ac.). **On Golf Course Greens and Tees:** A second application of this product at the rate of 21.3 pints per acre (7.8 fl. ozs./1,000 sq. ft.) may be made 14 days after the first application. Only a preventive spray program with this product will prevent recurrence of the Algae when environmental conditions are favorable.

FUSARIUM (GERLACHIA) PATCH

On Golf Course Fairways and Roughs, Lawns Around Commercial and Industrial Buildings, and Professional and Collegiate Athletic Field Turf AND/OR Golf Course Greens and Tees

- In areas where Pink snow mold (Gerlachia or Fusarium patch) is likely to occur, apply this product at 21.3 pints per acre (7.8 fl. ozs./1,000 sq. ft.) (11.3 lbs. a.i./Ac.) in combination with products containing Iprodione at the maximum labeled rate. Read and observe all label directions for products containing these active ingredients.
- For control of Fusarium patch only in areas where snow cover is intermittent or lacking during the Winter, apply 21.3 pints per acre (7.8 fl. ozs./1,000 sq. ft.) of this product (11.3 lbs. a.i./Ac.). Make application in late Autumn. **Golf Course Greens and Tees:** Apply a second application of 21.3 pints per acre (7.8 fl. ozs./1,000 sq. ft.) of this product 21 to 28 days after the first application unless conditions favorable for Fusarium patch no longer prevail.

GRAY SNOW MOLD CAUSED BY *TYPHULA* SPP.

On Golf Course Fairways and Roughs, Lawns Around Commercial and Industrial Buildings, and Professional and Collegiate Athletic Field Turf AND/OR Golf Course Greens and Tees

- Apply in sufficient water to obtain adequate coverage (2 to 10 gals./1,000 sq. ft.). Apply one application of 21.3 pints per acre (7.8 fl. ozs./1,000 sq. ft.) (11.3 lbs. a.i./ac.) of this product.
- Apply before snow cover in Autumn.
- Golf Course Greens and Tees:** If snow cover is intermittent or lacking during the Winter, a second application of this product at 21.3 pints per acre (7.8 fl. ozs./1,000 sq. ft.) may be applied one month after the first application.

Ornamental Plants

The following Ornamental plants can be treated by this product. This product may be used in Greenhouses (see "Use Restrictions" below regarding use of this product in Greenhouses).

Apply this product at the rate of 1.8 pints (1.0 lb. a.i.) per 100 gallons of water unless other directions are given in the tables below. Apply sufficient diluted spray per acre to provide thorough coverage of all plant parts needing protection from the disease, generally ranging from 20 to 150 gallons per acre. Repeat applications at 7 to 14 day intervals until conditions are no longer favorable. During periods when conditions favor severe disease incidence, generally cloudy or wet weather, apply this product at 7 day intervals. The minimum retreatment interval is 7 days. Apply this product to plants when both foliage and flowers are dry or nearly dry.

Use Restrictions:

- Do not apply more than 68.6 pints of this product (36.4 lbs. a.i.) per acre per year to field grown Ornamentals.
- Do not eat treated plants or fruits from treated plants.
- Do not use mist blowers or high pressure spray equipment when applying this product in Greenhouses.

Use Precautions:

- This product may be used to control fungal diseases referred to by numbers in parentheses following each Ornamental. Ornamentals listed on this label have been tested and found to tolerate applications of this product at the label specified rates. If plant response is not known, test for possible phytotoxic responses using label specified rates on a small area prior to commercial use.
- Applications made during bloom may damage flowers and/or fruits.
- Multiple application to either green or variegated Pittosporum or Schefflera may cause phytotoxic response.
- Knock Out® and Double Delight roses can be sensitive to applications of this product resulting in damage to foliage under certain growing conditions.

Broadleaf Shrubs and Trees		
Andromeda (<i>Pieris</i>) ¹	Flowering almond ^{2,3}	Oregon-Grape (<i>Mahonia</i>) ⁴
Ash (<i>Fraxinus</i>) ²	Flowering cherry ^{2,3}	Photinia ²
Aspen ²	Flowering peach ^{2,3}	Poplar ²
Azalea ^{1,2,3}	Flowering plum ^{2,3}	Privet (<i>Ligustrum</i>) ²
Buckeye	Flowering quince ^{2,3}	Rhododendron ^{1,2,3}
horsechestnut ²	Hawthorn ^{2,4}	Sand cherry ^{2,3}
Cherry laurel ²	Holly ²	Sequoia ²
Crabapple ^{2,4,5}	Lilac ⁷	Spiraea ²
Dogwood ²	Magnolia ²	Sycamore
Eucalyptus ⁶	Maple ²	planetree ²
Euonymus ²	Mountain laurel ²	Viburnum ⁷
Firethorn	Oak (Red group	Walnut (<i>Juglans</i>) ²
(<i>Pyracantha</i>) ²	only) ^{2,8}	
DISEASES CONTROLLED BY THIS PRODUCT:		
¹Phytophthora leaf blight/dieback		
²Leaf spots and Foliar Blights:		
Actinopelte leaf spot	Coryneum blight	Myrothecium leaf
Alternaria leaf spot/	(Shothole)	spot/brown rot
leaf blight	Curvularia leaf spot	Nematostoma leaf
Anthrachnose leaf	Cylindrosporium leaf	blight
blotch/spot	spot	Phyllosticta leaf
Anthrachnose blight	Dactylaria leaf spot	spot
(<i>Discula</i>)	Didymellina leaf spot	Ramularia leaf spot
Ascochyta blight	Drechslera leaf spot	Rhizoctonia web
Bipolaris leaf spot	Fabraea leaf spot	blight
(<i>Helminthosporium</i>)	(<i>Entomosporium</i>)	Septoria leaf spot
Black spot on Roses	Fusarium leaf spot	Sphaeropsis leaf
Botrytis leaf spot/leaf	Gloeosporium black	spot
blight	leaf spot	Stagonospora leaf
Cephalosporium leaf	Ink spot (<i>Drechslera</i>)	scorch
spot	Marssonina leaf spot	Tan leaf spot
Cercospora leaf spot	Monilinia blossom	(<i>Curvularia</i>)
Cercosporidium leaf	blight/twig blight	Volutella leaf blight
spot	Mycosphaerella ray	
Corynespora leaf spot	blight	
³Flower Spots and Blight:		
Botrytis flower spot/flower blight		
Curvularia flower spot		
Monilinia blossom blight		
Ovulinia flower blight		
Rhizopus blossom blight		
Sclerotinia flower blight		
⁴Rusts:		
<i>Gymnosporangium</i> spp.		
<i>Pucciniastrum hydrangeae</i>		
<i>Puccinia</i> spp.		
⁵Scab (<i>Venturia inaequalis</i>)		
⁶Cylindrocladium stem canker		
⁷Powdery mildew:		
<i>Erysiphe cichoracearum</i>		
<i>Microsphaera</i> spp.		
⁸Taphrina blister		

Flowering Plants* and Bulbs		
Arabian violet ¹	Gladiolus ^{1,2}	Narcissus ²
Begonia ²	Hollyhock ³	Pansy ²
Camellia ²	Hydrangea (Foliage only) ^{2,3}	Petunia ^{2,5}
Carnation ^{1,2}	Iris ^{1,2}	Phlox ²
Chrysanthemum ^{1,2}	Iris, Bulbous ²	Poinsettia ^{2,**}
Crocus ²	Lily ²	Rose ^{2,***}
Daffodil ²	Lily, Asiatic ²	Statice ²
Daisy ²	Marigold ²	Tulip ²
Geranium ^{2,3}		Zinnia ^{2,6}
DISEASES CONTROLLED BY THIS PRODUCT:		
¹ Flower Spots and Blight:		
Botrytis flower spot/flower blight		
Curvularia flower spot		
Monilinia blossom blight		
² Leaf spots and Foliar Blights:		
Actinopelte leaf spot	Coryneum blight	Myrothecium leaf
Alternaria leaf spot/	(Shothole)	spot/brown rot
leaf blight	Curvularia leaf spot	Nematostoma leaf
Anthrachnose leaf	Cylindrosporium leaf	blight
blotch/spot	spot	Phyllosticta leaf
Anthrachnose blight	Dactylaria leaf spot	spot
(<i>Discula</i>)	Didymellina leaf spot	Ramularia leaf spot
Ascochyta blight	Drechslera leaf spot	Rhizoctonia web
Bipolaris leaf spot	Fabraea leaf spot	blight
(<i>Helminthosporium</i>)	(<i>Entomosporium</i>)	Septoria leaf spot
Black spot on Roses	Fusarium leaf spot	Sphaeropsis leaf
Botrytis leaf spot/leaf	Gloeosporium black	spot
blight	leaf spot	Stagonospora leaf
Cephalosporium leaf	Ink spot (<i>Drechslera</i>)	scorch
spot	Marssonina leaf spot	Tan leaf spot
Cercospora leaf spot	Monilinia blossom	(<i>Curvularia</i>)
Cercosporidium leaf	blight/twig blight	Volutella leaf blight
spot	Mycosphaerella ray	
Corynespora leaf	blight	
spot		
³ Rusts:		
<i>Gymnosporangium</i> spp.		
<i>Pucciniastrum hydrangeae</i>		
<i>Puccinia</i> spp.		
⁴ Cylindrocladium stem canker		
⁵ Phytophthora leaf blight/dieback		
⁶ Powdery mildew:		
<i>Erysiphe cichoracearum</i>		
<i>Microsphaera</i> spp.		
*Avoid applications during bloom period on plants where flower injury is unacceptable.		
**Discontinue applications prior to bract formation as phytotoxicity is possible on bracts.		
***Use 1.42 pts. of this product (0.75 lb. a.i.) per 100 gals. of water.		

Foliage Plants		
Aglaonema ¹	Ficus ¹	Parlor palm
Areca palm ¹	[Optional: Florida	(<i>Chamaedorea</i>) ¹
Artemesia ¹	ruffle fern ¹]	Peperomia ¹
[Optional: Boston	[Optional: Leatherleaf	Philodendron ^{1,2}
fern ¹]	fern ¹]	Prayer plant
Dumbcane	Lipstick plant ¹	(<i>Maranta</i>) ¹
(<i>Dieffenbachia</i>) ¹	Ming aralia ¹	Syngonium ¹
Dracaena ¹	Oyster plant (Rhoeo) ¹	Zebra plant
Fatsia (<i>Aralia</i>) ¹	Pachysandra ^{1,*}	(<i>Aphelandra</i>) ¹

(Continued)

Foliage Plants (Cont.)		
DISEASES CONTROLLED BY THIS PRODUCT:		
¹ Leaf spots and Foliar Blights:		
Actinopelte leaf spot	Coryneum blight	Myrothecium leaf
Alternaria leaf spot/	(Shothole)	spot/brown rot
leaf blight	Curvularia leaf spot	Nematostoma leaf
Anthrachnose leaf	Cylindrosporium leaf	blight
blotch/spot	spot	Phyllosticta leaf spot
Anthrachnose blight	Dactylaria leaf spot	Ramularia leaf spot
(<i>Discula</i>)	Didymellina leaf spot	Rhizoctonia web
Ascochyta blight	Drechslera leaf spot	blight
Bipolaris leaf spot	Fabraea leaf spot	Septoria leaf spot
(<i>Helminthosporium</i>)	(<i>Entomosporium</i>)	Sphaeropsis leaf
Black spot on Roses	Fusarium leaf spot	spot
Botrytis leaf spot/leaf	Gloeosporium black	Stagonospora leaf
blight	leaf spot	scorch
Cephalosporium leaf	Ink spot (<i>Drechslera</i>)	Tan leaf spot
spot	Marssonina leaf spot	(<i>Curvularia</i>)
Cercospora leaf spot	Monilinia blossom	Volutella leaf blight
Cercosporidium leaf	blight/twig blight	
spot	Mycosphaerella ray	
Corynespora leaf	blight	
spot		
² Phytophthora leaf blight/dieback		
*Use 3.75 pts. of this product per 100 gals. of water.		

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Store in original container. Keep container tightly closed. Keep away from heat and flame.

PESTICIDE DISPOSAL: To avoid waste, use all materials in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often, such programs are run by state or local governments or by industry).

CONTAINER HANDLING:

Nonrefillable Container (rigid material; ≤ 5 gallons): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container one-fourth full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration.

Nonrefillable Container (rigid material; > 5 gallons up to < 250 gallons): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container one-fourth full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration.

Refillable Container (≥ 250 gallons & Bulk): Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

WARRANTY—CONDITIONS OF SALE

OUR DIRECTIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixture with other chemicals not specifically directed and other influencing factors in the use of this product are beyond the control of the Seller. To the extent consistent with applicable laws, Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith. To the extent consistent with applicable laws, in no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.

The DREXEL logo is a registered trademark of Drexel Chemical Company. All other brand names, product names or trademarks belong to their respective holders.

DREXEL CHLOROTHALONIL – ZN FUNGICIDE

SECTION 1: MATERIAL IDENTIFICATION

Product Name: Drexel Chlorothalonil - Zn Fungicide
EPA Reg. No.: 19713-709
Product Usage: Fungicide

Manufacturer: Drexel Chemical Company
Address: 1700 Channel Avenue
 PO Box 13327
 Memphis, Tennessee, 38113-0327, USA
 901-774-4370

Emergency Telephone Numbers: CHEMTREC 800-424-9300
 DREXEL CHEMICAL COMPANY 901-774-4370

This product is an EPA FIFRA registered pesticide. Some of the classifications on this SDS are not the same as the FIFRA label. Certain sections of this SDS are superseded by federal law governed by EPA for a registered pesticide. Refer to SECTION 15: REGULATORY INFORMATION for explanation.

SECTION 2: HAZARD IDENTIFICATION

(As defined by the OSHA Hazard Communication Standard, 29)

Label Elements:
Signal Word:

DANGER



Classifications:
Hazard Class:

<u>Toxicity Study:</u>	<u>Category:</u>
Acute Toxicity, Inhalation	Category 2
Skin corrosion/ irritation	Category 2
Serious eye damage / irritation	Category 2B
Skin sensitizer	Category 1
Carcinogenicity	Category 2
Specific Target Organs: Single	Category 3
Specific Target Organs: Repeated	Category 2
Hazard to Aquatic Environment, short term (Acute)	Category 1
Hazard to Aquatic Environment, long-term (Chronic)	Category 2

Hazard Statements:

<u>H Code:</u>	<u>Statement:</u>
H330	Fatal if inhaled.
H315	Causes skin irritation.
H320	Causes eye irritation.
H317	May cause an allergic skin reaction
H351	Suspected of causing cancer.
H371	May cause damage to organs through prolonged or repeated exposure
H401	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects

Precautionary Statements:
Prevention:

Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Wash face, hands and any exposed skin thoroughly after handling.

Do not eat, drink or smoke when using this product.
 Wear protective gloves/protective clothing/eye protection/face protection.
 Avoid breathing dust/fume/gas/mist/vapors/spray.
 Use only outdoors or in a well-ventilated area.
 In case of inadequate ventilation, wear respiratory protection.
 Avoid release into the environment.

Response:

If in Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Get immediate medical advice/attention.
If Swallowed: Call a POISON CENTER or doctor/physician if you feel unwell. Treat symptomatically.
If Inhaled: Remove person to fresh air and keep comfortable for breathing. Call POISON CENTER or doctor if you feel unwell.
If on Skin or Clothing: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.
If exposed or concerned: None available, get medical attention.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal: Dispose of contents/container in accordance with your local or area regulatory authorities.

Specific hazards: None available.

SECTION 3: COMPOSITION INFORMATION

<u>Chemical Name:</u>	<u>Synonym:</u>	<u>CAS No.:</u>	<u>EC No.:</u>	<u>RTECS:</u>	<u>% By Wt.:</u>
Active Ingredient: Chlorothalonil	Chlorothalonil; 2, 4, 5, 6-Tetrachloroisophthalonitrile	1897-45-6	217-588-1	NT2600000	38.5%
Inert Ingredients: Proprietary Mixture	N/A	N/A	N/A	N/A	61.5%

SECTION 4: FIRST-AID MEASURES

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also call CHEMTREC at 800-424-9300 for emergency medical treatment information.

Eye Contact: Hold eye open and rinse slowly and gently with water for 15 to 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.

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.

Skin/Clothing Contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.


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

Indication of Medical Attention and Special Treatment Needed: None / Treat symptomatically. If medical advice is needed, have product container or label with you. If temporary irritation occur, persons may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

SECTION 5: FIRE FIGHTING MEASURES

- Fire Fighting Media:** Use appropriate extinguishing media for surrounding fire. Dry chemical, CO₂, Fog, Water spray.
Unsuitable Extinguishing Media: Do not use a heavy water stream. A heavy water stream may spread burning liquid.
- Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. Evacuate the area and fight the fire from upwind at a safe distance to avoid hazardous vapors or decomposition products. Cool closed containers exposed to fire with water spray, if possible. Dike and collect fire-extinguishing water to prevent environmental damage and excessive waste runoff.
- Special Protective Equipment for Firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves). Use full face shield and operate in positive pressure mode. Avoid contact with this material during firefighting operations. If contact is likely, change to full chemical resistant firefighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.
- Specific Fire Hazards:** Flammability classification (OSHA 29 CFR 1910.1200): N/Av
Flash point: > 200°F
Lower flammable limit (% by volume): N/Av
Upper flammable limit (% by volume): N/Av
- Hazardous Combustion Products:** Hydrogen chloride.
During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating.

National Fire Protection Association:

NFPA:	Health	Fire	Reactivity
	3	1	0

Ratings: 4-Extreme 3-High 2-Moderate 1-Slight 0-Insignificant

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Isolate area. Evacuate the area. Keep unnecessary and unprotected personnel from entering the area. Refer to SECTION 7: HANDLING AND STORAGE, for additional precautionary measures. Ventilate area of leak or spill. Use appropriate safety equipment. For additional information, refer to SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION.

Environmental Precautions:

Do not flush into surface water or sanitary sewer system. Prevent from entering soil, ditches, sewers, waterways and/or groundwater. Refer to SECTION 12: ECOLOGICAL INFORMATION.

Steps to be taken if Material is Released or Spilled:

Control the spill at its source.

Small spills: Stop the flow of material, if this is without risk. Apply suitable absorbent and sweep up. Collect in suitable and properly labeled containers. Prevent entry into waterways, sewers, basements or confined areas.

Large spills: Stop the flow of material, if this is without risk. Apply suitable absorbent and sweep up. Collect in suitable and properly labeled containers. Contact Drexel Chemical Company for clean-up assistance. Refer to SECTION 13: DISPOSAL CONSIDERATIONS, for additional information. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7: HANDLING AND STORAGE

KEEP OUT OF REACH OF CHILDREN

Handling: **General Handling:** Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Do not swallow. Avoid breathing dust. Avoid breathing vapors. Do not eat, drink or smoke when using this product. Use with adequate ventilation. Wear chemical protective equipment when handling. Wear long-sleeved shirt, long pants and shoes with socks when handling. Keep away from heat, sparks and flame. Refer to SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Storage: Store in a cool, dry, ventilated and secure area designated specifically for pesticides and away from heat sources. Keep in original containers and keep containers closed when not in use. Do not store in excessive heat. Do not store near children, food, foodstuffs, drugs or potable water supplies.

Incompatible Products: Strong acids. Strong bases. Strong oxidizers.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits:

Components:	OSHA PEL	ACGIH TLV
Proprietary Mixture	5 mg/m ³ (fume) -TWA 15 mg/m ³ (total dust) -TWA 5 mg/m ³ (respirable fraction) -TWA	2 mg/m ³ (respirable fraction) -TWA 10mg/m ³ (respirable fraction) -STEL

THIS SECTION IS FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD REFER TO THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

Engineering Controls:

Ventilation: Investigate engineering techniques to reduce exposures. When handling this product proper ventilation is required to maintain exposure below the TLV. Ventilate all transport vehicles prior to unloading. Facilities storing or utilizing this material should be equipped with an eyewash facility / station and safety shower. Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

Personal Protection:

Eye/Face Protection: Eye contact should be avoided through the use of chemical safety glasses, goggles, or a face shield selected in regard to exposure potential. Wear chemical splash goggles to prevent vapors or mists from entering the eyes. Where there is potential for eye contact have eye flushing equipment available. Safety glasses with side-shields.

Ingestion: Avoid ingestion of even very small amounts; do not consume or store food or tobacco in the work area; wash hands and face thoroughly with soap and water before smoking or eating. Avoid getting wash water in eyes.

Hand Protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Neoprene, Nitrile/butadiene rubber ("nitrile" or "NBR") or Viton, Polyvinyl chloride ("PVC" or "vinyl").

Skin Protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task. Safety shower should be located in immediate work

area. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly. Items which cannot be decontaminated, such as shoes, belts and watchbands, should be removed and disposed of properly.

Respiratory Protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. When handling in enclosed areas, when large quantities of dusts are generated or prolonged exposure is possible in excess of the TLV, use a respirator with either 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).

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Reported Value
Physical State	Liquid
Appearance / Color	Pink
Odor	Mild odor
Odor threshold	Not available
pH	4.0 – 5.0
Melting point	Not available
Freezing point	Not available
Boiling point	Not available
Flash point	> 200°F
Evaporation rate	Not available
Flammability	Not available
Upper flammability/explosive limits	Not available
Lower flammability/explosive limits	Not available
Vapor pressure	Not available
Vapor density	Not available
Relative density	11.00 lbs./ gal.
Solubility in water	Not available
Solubility in organic solvents	Not available
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	1000 - 1500cP
Explosive properties	Not available
Oxidizing properties	Not available
Dissociation Constant	Not available

SECTION 10: STABILITY AND REACTIVITY

Reactivity:	Thermally stable at typical use temperatures and in closed containers.
Chemical Stability:	Stable under recommended storage conditions.
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	Keep out of reach of children. Store away from foodstuffs, animal feed, and incompatibles. Direct sunlight. Extremely high or low temperatures.
Incompatible Materials:	Strong acids. Strong bases. Strong oxidizers.
Hazardous Decomposition Products:	May emit toxic fumes under fire conditions. Hydrogen chloride. Carbon oxides (CO, CO ₂).

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Potential routes of exposure/potential health effects:

Acute Oral:	LD₅₀ (Rat):	Chlorothalonil	>5,050 mg/kg
		Proprietary mixture	>5,000 mg/kg
Acute Dermal:	LD₅₀ (Rat):	Chlorothalonil	>5,050 mg/kg
		Proprietary mixture	>2,000 mg/kg
Acute Inhalation:	LC₅₀ (Rat):	Chlorothalonil	>2mg / L
Eye Irritation:	(Rabbit):	Chlorothalonil	Cause eye irritation.
		Proprietary mixture	
Skin Irritation:	(Rabbit):	Chlorothalonil	May cause skin irritation.
		Proprietary mixture	
Skin Sensitization:	(Guinea Pig):	Chlorothalonil	May cause an allergic skin reaction.
		Proprietary mixture	
Chronic Toxicity:	No data available		
Carcinogenicity:	IARC identifies Chlorothalonil as a 2B carcinogen (possibly carcinogenic to humans). Not listed by OSHA, NTP, nor ACGIH.		
Mutagenicity:	No data available		
Teratogenicity:	No data available		
Reproductive Toxicity:	No data available		
Developmental Toxicity:	No data available		
Specific target organ toxicity-single exposure:	May cause respiratory irritation.		
Specific target organ toxicity-repeated exposure:	No data available / Not classified		
Other Hazards Effects:	No data available		

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE

Chlorothalonil / Proprietary Mixture	Very toxic to aquatic life with long lasting effects. This product is toxic to aquatic invertebrates and wildlife.
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ECO-ACUTE TOXICITY

Aquatic Toxicity:	Fish, LC₅₀ 96 hour	Chlorothalonil	0.012 mg/l
		Proprietary Mixture	No data available
	Bluegill Sunfish, LC₅₀ 96 hour	Chlorothalonil	No data available
		Proprietary Mixture	No data available

	Daphnia magna, LC₅₀ 48 hour	Chlorothalonil Proprietary Mixture	0.0342 - 0.143 mg/l
Arthropod Toxicity:	Bees, Acute LD₅₀	Chlorothalonil Proprietary Mixture	46.26 µg/bee No data available
Bird Toxicity:	Mallard Duck, LD₅₀	Chlorothalonil Proprietary Mixture	2,000 mg/kg No data available
	Bobwhite Quail, LD₅₀	Chlorothalonil Proprietary Mixture	>2,150 mg/kg No data available
Algal Toxicity:	Green Algae, LC₅₀ 96 hour	No data available	
Soil Organism Toxicity:	Earthworm acute toxicity	No data available	
Persistence and degradability:	No data available		
Bioaccumulation:	No data available		
Mobility in soil:	No data available		
Other adverse effects:	Do not contaminate water supplies, lakes, streams, ponds or drains with this product.		

SECTION 13: DISPOSAL CONSIDERATIONS

If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

SECTION 14: TRANSPORT INFORMATION

DOT:	Packages ≤ 119 gallons	Not Regulated
	Packages > 119 gallons	UN 3082, Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorothalonil), 9, PG-III, Marine Pollutant
IMDG:	UN 3082, Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorothalonil), 9, PG-III, Marine Pollutant	
IATA / ICOA:	UN 3082, Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorothalonil), 9, PG-III, Marine Pollutant	
UN Identification No.:	UN3082	
Proper Shipping Name:	Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorothalonil)	
Hazard Class:	9	
Packing Group:	III	
Reportable Quantity:	None / Not listed	
Environmental Hazard:	Marine Pollutant	
Freight Description:	Agriculture Fungicide, liquid, n.o.s.	
ERG Guide No.:	171	
Transport Information Note:	Non-Bulk, Not Regulated (DOT defined as container capacities less than or equal to 119 gallons)	

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

SECTION 15: REGULATORY INFORMATION

OSHA Hazard Communication Standard: This product contains no hazardous components as defined under the criteria of the Federal OSHA Hazardous Communication Standard 29 CFR 1910.1200

Pesticide Registration: This product is a pesticide registered by the Environmental Protection Agency (EPA) and is subject to certain FIFRA labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals.

EPA Reg. No.: 19713-709

FIFRA Label Signal Word: CAUTION

FIFRA Label Information: KEEP OUT OF REACH OF CHILDREN

FIFRA Label Information: CAUTION: Harmful if swallowed. Harmful if inhaled. Causes moderate eye irritation. Avoid breathing spray mist. Avoid contact with skin, eyes, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse. Wear long-sleeved shirt and long pants, socks and shoes. Wear appropriate protective eyewear.

This product is not for NOT FOR RESIDENTIAL USE

EPCRA SARA Title III Classification:

Section 302: Extremely Hazardous Substance This material is not known to contain any
Notification: Extremely Hazardous Substances.

Sections 311 and 312: Immediate (Acute) Health Hazard: Yes
 Delayed (Chronic) Health Hazard: Yes
 Fire Hazard: No
 Reactive Hazard: No
 Sudden Release of Pressure Hazard: No

Section 313 Toxic Release Inventory (TRI): Chlorothalonil (CAS 1897-45-6)

CERCLA/SARA 304 Reportable Quantity (RQ): None / Not listed/ Not available

RCRA Hazardous Waste Classification (40 CFR 261): Not listed / Not available

US EPA Toxic Substances Control Act (TSCA): All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30.

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):

Chlorothalonil	Listed as causing:	Cancer
	Listing date:	01/01/1989
	Listing basis:	SQE

Proprietary Mixture	Listed as causing:	Not listed
	Listing date:	Not listed
	Listing basis:	Not listed

This product contains chemicals known to the State of California to cause cancer, birth defects or any other reproductive harm.

International Inventories:

TSCA Complies

SECTION 16: OTHER INFORMATION

Date Issued: February 21, 2020

Date Supersedes: -

Revision: 0

For all non-emergency questions about this product, please contact:

1700 Channel Avenue
PO Box 13327
Memphis, Tennessee 38113-0327, USA

Phone: 901-774-4370
Fax: 901-774-4666
Website: www.drexchem.com

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