

66330-362

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON D C 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

Gary Orr  
Arysta LifeScience North America Corporation  
15401 Weston Parkway, Suite 150  
Cary, NC 27513

JUN 22 2012

SUBJECT Label Amendment  
Chlorothalonil 720 SC  
EPA Reg No 66330-362, Decision No 465959  
Your Submission Dated May 24, 2012

Dear Mr Orr

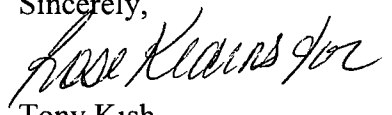
The amended labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) as amended, to clarify conifer use to specifically prohibit forest uses has been reviewed and found acceptable provided that you make the following labeling changes

- 1 On page 1 at the bottom left, after the company name and address, delete "ADXXXXXX"
- 2 On page 2 in the Agricultural Use Requirements section, line 5, add "(REI)" after restricted entry interval
- 3 On page 2, in the Agricultural Use Requirements section, second paragraph, delete "restricted entry interval" and the parenthesis around "(REI)"
- 4 On page 2 in the Agricultural Use Requirements section, Special Eye Irritation Provisions delete restricted entry interval and replace with "REI"
- 5 On page 4, in the Spray Drift Restrictions", delete "forestry applications"

A copy of the label stamped "accepted with comments" is enclosed

If you have any questions regarding this correspondence, contact Rose Kearns of my staff by phone at 703-305-5611 or via email at [kearns.rosemary@epa.gov](mailto:kearns.rosemary@epa.gov) or myself at 703-308-9443 or via email at [kish.tony@epa.gov](mailto:kish.tony@epa.gov)

Sincerely,



Tony Kish  
Product Manager 22  
Fungicide Branch  
Registration Division (7504P)

ACCEPTED  
with COMMENTS  
In EPA Letter Dated  
JUN 22 2012

**Chlorothalonil 720 SC**  
**Flowable Fungicide**  
**Agricultural Fungicide**

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg No  
W-332 3102

**ACTIVE INGREDIENT**  
Chlorothalonil (tetrachloroisophthalonitrile)  
**INERT INGREDIENTS**  
**TOTAL**

54 0%  
46 0%  
100 0%

This product contains 60 pounds of chlorothalonil per gallon (720 g 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)

**See inside booklet for additional precautionary statements**  
**For Product Use Information Call 1-866-761-9397**

**FIRST AID**

<b>IF SWALLOWED</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor for treatment advice</li> <li>• Have person sip a glass of water if able to swallow</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor</li> <li>• Do not give anything by mouth to an unconscious person</li> </ul>
<b>IF ON SKIN OR CLOTHING</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing</li> <li>• Rinse skin immediately with plenty of water for 15–20 minutes</li> <li>• Call a poison control center or doctor for treatment advice</li> </ul>
<b>IF INHALED</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air</li> <li>• If person is not breathing call 911 or an ambulance then give artificial respiration preferably mouth to mouth if possible</li> <li>• Call a poison control center or doctor for further treatment advice</li> </ul>
<b>IF IN EYES</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes</li> <li>• Remove contact lenses if present after the first 5 minutes then continue rinsing eye</li> <li>• Call a poison control center or doctor for treatment advice</li> </ul>

**NOTE TO PHYSICIAN**

Persons suffering with temporary allergic skin reactions may respond to treatment with oral antihistamines and topical or oral steroids

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

**HOTLINE NUMBERS**

**FOR 24-HOUR MEDICAL EMERGENCY ASSISTANCE**

Call PROSAR at 1-866-303-6952 or 1 651 632-8946 if calling from outside of the U S

**FOR 24-HOUR CHEMICAL EMERGENCY ASSISTANCE**

Spill leak fire exposure or accident Call CHEMTREC at 1-800-424-9300 or 1-703-527-3887 if calling from outside of the U S

**Arysta LifeScience North America LLC**  
**15401 Weston Parkway Suite 150**  
**Cary NC 27513**  
**ADXXXXXX**

**EPA REG No 66330-362**  
**EPA Est No**  
**NET WEIGHT**

# PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS

### CAUTION

Harmful if swallowed absorbed through skin or inhaled Causes moderate eye irritation Avoid contact with skin eyes or clothing Avoid breathing spray mist Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical resistant to this product are made of any waterproof material If you want more options follow the instructions for category A on an EPA chemical resistance category selection chart

### Mixers, loaders, applicators and all others who handle this pesticide must wear

- Long-sleeved shirt and long pants
- Chemical resistant gloves made of any waterproof material – Category A (e.g. barrier laminate butyl rubber nitrile rubber neoprene rubber natural rubber polyethylene polyvinyl chloride (PVS) or viton)
- Shoes plus socks

## USER SAFETY REQUIREMENTS

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 Discard clothing or other materials that have been drenched or heavily contaminated with this product s concentrate Do not reuse them

## ENGINEERING CONTROLS STATEMENT

When handlers use closed systems enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170 240(d)(4-6)] the handler PPE requirements may be reduced or modified as specified in the WPS

### USER SAFETY RECOMMENDATIONS

#### Users should

- Wash hands before eating drinking chewing gum using tobacco or using the toilet
- 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
- Remove clothing immediately if pesticide gets inside Then wash thoroughly and put on clean clothing

## 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 wash water or rinsate

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

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

## 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 or pets either directly or through drift Only protected handlers may be in the area during application For any requirements specific to your State or Tribe consult the agency responsible for pesticide regulation

### AGRICULTURAL USE REQUIREMENTS

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

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

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated such as plants soil or water is long-sleeved shirt and long pants or coveralls shoes plus socks chemical resistant gloves made of any waterproof material such as nitrile butyl neoprene and / or barrier laminate and protective eyewear

**Special Eye Irritation Provisions** This product is a severe eye irritant Although the restricted entry interval expires after 12 hours for the next 6 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
- 2 Workers must be informed in a manner they can understand
  - that residues in the treated area may be highly irritating to their eyes
  - that 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 eyeflush container that is located at the decontamination site or using other readily available clean water and
  - how to operate the eyeflush container

### STORAGE AND DISPOSAL

Do not contaminate water food or feed by storage or disposal

#### PESTICIDE STORAGE

Store in original container and keep tightly closed Store in a cool dry place Protect from excessive heat

#### PESTICIDE DISPOSAL

Pesticide wastes are toxic Improper disposal of excess pesticide pesticide spray or rinsate is a violation of federal law If these wastes cannot be disposed of by use according to label instructions contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance

#### CONTAINER HANDLING

**Containers equal to or less than 5 gallons** Nonrefillable container Do not reuse or refill this container Triple rinse container (or equivalent) 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 ¼ 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 Offer for recycling if available or puncture and dispose of in a sanitary landfill

**Containers greater than 5 gallons** Nonrefillable container Do not reuse or refill this container Triple rinse container (or equivalent) promptly after emptying Triple rinse as follows Empty the remaining contents into application equipment or a mix tank Fill the container ¼ 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 Offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration or if allowed by state and local authorities

#### Returnable Refillable Containers/ Bulk and Minibulk Containers

**Return container intact to point of purchase** Refillable container Refill this container with pesticide only 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 a mix tank Fill the container about 10 percent full with water Agitate vigorously or

recirculate water with pump for 2 minutes Pour or pump rinsate into application equipment or rinsate collection system Repeat this rinsing procedure two more times

**PRODUCT INFORMATION**

**Integrated Pest Management**

Chlorothalonil 720 SC is an effective fungicide when used according to label directions for control of a broad spectrum of plant diseases Chlorothalonil 720 SC is recommended 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

**Fungicide Resistance Management**

Chlorothalonil 720 SC is an effective product for strategic use in programs that attempt to minimize disease resistance to fungicides Some other fungicides that are at risk from disease resistance exhibit a single site mode of fungicidal action Chlorothalonil 720 SC with a multi-site mode of action may be used to delay or prevent the development of resistance to single-site fungicides Consult your federal or state Cooperative Extension Service representatives for guidance on the proper use of Chlorothalonil in programs which seek to minimize the occurrence of disease resistance to other fungicides

Chlorothalonil 720 SC can be used effectively in dilute or concentrate sprays Thorough uniform coverage is essential for disease control

**RESTRICTIONS**

DO NOT use on greenhouse-grown crops

**Tank Mixing**

DO NOT combine Chlorothalonil 720 SC in spray tank with pesticides surfactants or fertilizers unless prior use has shown the combination physically compatible effective and noninjurious under your conditions of use DO NOT combine Chlorothalonil 720 SC with DiPel® or Latron B-1956® or Latron AG 98® as phytotoxicity may result from the combination when applied to crops listed on this label

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

**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 ¾ the length of the wingspan or rotor
- 2 Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees

Where states have more stringent regulations they should be observed

The applicator should be familiar with and take into account the information covered in the *Spray Drift Management* section

**Spray Drift Management**

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

**Information on Droplet Size**

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

**Controlling Droplet Size**

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

**Boom Length**

For some use patterns reducing the effective boom length to less than ¼ of the wingspan or rotor length may further reduce drift without reducing swath width

**Application Height**

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

**Swath Adjustment**

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

**Wind**

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

**Temperature and Humidity**

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

**Temperature Inversions**

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

**Sensitive Areas**

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

**APPLICATION INSTRUCTIONS**

Dosage rates on this label indicate pints of Chlorothalonil 720 SC per acre unless otherwise stated Under conditions favoring disease development the higher rate specified and shortest application interval should be used

**Note** Slowly invert container several times to assure uniform mixture

The required amount of Chlorothalonil 720 SC should be added slowly into the spray tank during filling. With concentrate sprays, pre-mix the required amount of Chlorothalonil 720 SC 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.

Apply Chlorothalonil 720 SC in sufficient water to obtain adequate coverage of foliage. Gallonage 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 Chlorothalonil 720 SC 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 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 drain located between the irrigation water pump and the check valve to prevent back-siphoning of treated irrigation water into the water source.

**Always inject Chlorothalonil 720 SC 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.

Chlorothalonil 720 SC 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 – 3 times those encountered within the irrigation water line Venturi applicator units cannot be used on these systems

Thoroughly mix recommended amount of Chlorothalonil 720 SC 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 Chlorothalonil 720 SC 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 Chlorothalonil 720 SC for acreage to be covered with water so that the total mixture of Chlorothalonil 720 SC 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 Chlorothalonil 720 SC 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 Chlorothalonil 720 SC has been cleared from last sprinkler head

**DIRECTIONS FOR APPLICATION - AGRICULTURAL CROPS**

Crop	Diseases (Pathogen)	Pint/A (lb ai/A)	Application Directions
Asparagus	Rust ( <i>Puccinia asparagi</i> )  Purple Spot ( <i>Pleospora herbarum</i> )  Cercospora blight ( <i>C asparagi</i> )	2 – 4 (1 5 – 3 0)	Apply in water volumes of 25-50 gallons per A Begin applications after final harvest of spears Repeat applications at 14-28 day intervals (the minimum re-treatment interval is 14 days) depending on disease pressure Use the higher rate and shorter interval if disease severity begins to increase or weather conditions favor disease development  Ground applications only
<b>Restrictions and Limitations</b> <ul style="list-style-type: none"> <li>DO NOT apply more than 12 pt Chlorothalonil 720 SC (9 0 lb ai) per A during each growing season</li> <li>DO NOT apply within 190 days (120 days in CA and AZ) of the harvest of spears in the following season</li> </ul>			
Bean (Snap)	Rust ( <i>Uromyces appendiculatus</i> )  Botrytis blight (gray mold) ( <i>Botrytis cinerea</i> )	1 3/8 – 3 (1 0 – 2 25)  3 (2 25)	Apply with sufficient water to obtain adequate coverage Begin applications during early bloom stage or when disease first threatens and repeat as necessary (the minimum re-treatment interval is 7 days) to maintain control  Apply by ground air or chemigation

Crop	Diseases (Pathogen)	Pint/A (lb ai/A)	Application Directions
<b>Restrictions and Limitations</b> <ul style="list-style-type: none"> <li>DO NOT apply more than 12 pt Chlorothalonil 720 SC (9.0 lb ai) per A during each growing season</li> <li>DO NOT apply within 7 days of harvest</li> </ul>			
<b>Beans (Dry)</b> (except soybeans) bean adzuki bean broad bean dry bean lablab bean navy bean kidney bean lima bean moth bean mung bean pink bean pinto bean tepary bean urd bean yardlong catjang chickpea (garbanzo) cowpea lupin grain lupin bean rice bean runner bean jackbean pea blackeyed pea southern	Rust <i>(Uromyces appendiculatus)</i>  Anthracnose <i>(Colletotrichum lindemuthianum)</i>  Downy mildew <i>(Phytophthora nicotianae)</i>  Cercospora leaf blotch <i>(C. cruenta)</i>  Ascochyta blight <i>(A. phaseolorum)</i>	1 3/8 – 2 (1.0 – 1.5)	Apply with 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 and repeat at 7 to 10 day intervals (the minimum re-treatment interval is 7 days). For use only on beans to be harvested dry with pods removed.  Apply by ground, air or chemigation.
<b>Restrictions and Limitations</b> <ul style="list-style-type: none"> <li>DO NOT apply more than 8 pt Chlorothalonil 720 SC (6.0 lb ai) per A during each growing season</li> <li>DO NOT apply within 14 days of harvest</li> </ul>			
<b>Blueberries</b>	<b>Suppression</b> Anthracnose (ripe rot) <i>(C. gloeosporoides)</i>  Mummy Berry <i>(M. vaccinicorymbosi)</i>	3 – 4 (2.25 – 3.0)	Chlorothalonil 720 SC should be used 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 with sufficient water to obtain adequate coverage normally 20-100 gallons per A. Begin applications at budbreak (green tip) and repeat at 10-day intervals through early bloom (the minimum re-treatment interval is 10 days). Under heavy disease pressure use the higher rate.  Ground or air applications only.

	<p>Septoria leaf spot (<i>Septoria albopunctata</i>)</p> <p>Rust (<i>Pucciniastrum vaccinii</i>)</p>	<p>3 – 4 (2.25 – 3.0)</p>	<p><b>Post-Harvest Foliar Use</b> (after all berries have been harvested) To maintain healthy leaves for the following season apply with sufficient water to obtain adequate coverage (normally 20-100 gallons per A) Repeat at 10-14 day intervals (the minimum re-treatment interval is 10 days)</p> <p>Ground or air applications only</p>
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**Restrictions and Limitations**

- DO NOT apply more than 12 pt Chlorothalonil 720 SC (9.0 lb ai) per A during each growing season
- DO NOT apply after full bloom (except for foliar use after harvest) or within 42 days of harvest

<p><b>Cabbage</b> <b>Chinese Cabbage</b> (tight-headed varieties only) <b>Cauliflower</b> <b>Broccoli</b> <b>Chinese Broccoli</b> <b>Brussels Sprouts</b></p>	<p>Alternaria leaf spot (<i>Alternaria</i> spp.)</p> <p>Downy mildew (<i>Peronospora parasitica</i>)</p>	<p>1 ½ (1.125)</p>	<p>Apply with 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 (the minimum re-treatment interval is 7 days) or as necessary to maintain control.</p> <p>Apply by ground air or chemigation</p>
	<p>Ring spot (California only)</p>	<p>2 (1.5)</p>	<p>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 (the minimum re-treatment interval is 7 days) to maintain control.</p>

**Restrictions and Limitations**

- DO NOT apply more than 16 pt Chlorothalonil 720 SC (12.0 lb ai) per A during each growing season
- DO NOT apply within 7 days of harvest

<p><b>Carrot</b></p>	<p>Cercospora leaf spot (<i>C. carotae</i>)</p> <p>Alternaria leaf blight (<i>A. dauci</i>)</p>	<p>1 ½ – 2 (1.125 – 1.5)</p>	<p>Apply with sufficient water to obtain adequate coverage. Start applications when disease threatens and repeat at 7 to 10 day intervals (the minimum re-treatment interval is 7 days) to maintain control.</p> <p>Apply by ground air or chemigation</p>
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**Restrictions and Limitations**

- DO NOT apply more than 20 pt Chlorothalonil 720 SC (15.0 lb ai) per A during each growing season
- Chlorothalonil 720 SC may be applied the day of harvest

<p><b>Celery</b></p>	<p>Early blight (<i>Cercospora apii</i>)</p> <p>Late blight (<i>Septoria apicola</i>)</p> <p>Basal stalk rot</p>	<p>2 – 3 (1.5 – 2.25)</p>	<p>Apply with sufficient water to obtain adequate coverage. Start applications when transplants are set in the field and repeat at 7 day interval as needed to maintain control (the minimum re-treatment interval is 7 days)</p>
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Crop	Diseases (Pathogen)	Pint/A (lb ai/A)	Application Directions
	<i>(Rhizoctonia solani)</i>		Apply by ground air or chemigation
	<b>Suppression</b> (7 day schedule)  Pink rot <i>(Sclerotinia sclerotiorum)</i>	3 (2.25)	
	Early blight <i>(Cercospora apii)</i>  Late blight <i>(Septoria apicola)</i>	1 ½ - 2 (1.125 to 1.5) per 100 gal	For celery seedbeds apply in a spray volume of 125 gallons per A twice weekly or as needed to maintain control Start applications shortly after crop emergence Use the higher rate under severe disease conditions
<b>Restrictions and Limitations</b> <ul style="list-style-type: none"> <li>DO NOT apply more than 24 pt Chlorothalonil 720 SC (18.0 lb ai) per A during each growing season</li> <li>DO NOT apply within 7 days of harvest</li> </ul>			
<b>Corn</b> (Sweet)  <b>Corn</b> (grown for seed)	Helminthosporium leaf blights  Rust <i>(Puccinia spp.)</i>	¾ - 2 (0.6 - 1.5)	Apply with sufficient water to obtain adequate coverage Begin applications when conditions favor disease development and repeat at 7 day intervals (the minimum re-treatment interval is 7 days) Under severe disease conditions use 1 ½ to 2 pt Chlorothalonil 720 SC per A  Apply by ground air or chemigation
<b>Restrictions and Limitations</b> <ul style="list-style-type: none"> <li>DO NOT apply more than 12 pt Chlorothalonil 720 SC (9.0 lb ai) per A during each growing season</li> <li>DO NOT apply within 14 days of harvest</li> <li>DO NOT apply to sweet corn to be processed</li> <li>DO NOT allow livestock to graze in treated fields</li> <li>DO NOT ensile treated corn or use as livestock forage</li> </ul>			
<b>Cranberry</b>	Fruit Rots  Lophodermium leaf/twig blight <i>(L. hypophyllum)</i>	4 - 6 ½ (3.0 - 4.9)	Apply at early bloom and repeat at 10 to 14 day intervals (the minimum re-treatment interval is 10 days) Under severe disease conditions use the 6 ½ pint per A rate on a 10 day schedule  Apply by ground air or chemigation When applying by chemigation apply in 300 gallons of water per A through solid set systems only
	Upright Dieback <i>(Phomopsis vaccinii)</i>	4 - 6 ½ (3.0 - 4.9)	Apply with 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 10-14 day intervals  Apply by ground air or chemigation

Crop	Diseases (Pathogen)	Pint/A (lb ai/A)	Application Directions
			When applying by chemigation use 300 gallons of water per A through solid set systems only

**Restrictions and Limitations**

- DO NOT apply more than 20 pt Chlorothalonil 720 SC (15.0 lb ai) per A during each growing season
- 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

<b>Cucurbits</b> <b>Cucumber</b> <b>Cantaloupe</b> <b>Muskmelon</b> <b>Honeydew melon</b> <b>Watermelon</b> <b>Squash</b> <b>Pumpkin</b>	<b>Anthracnose</b> <i>(Colletotrichum spp.)</i>	<b>1 1/2 - 2</b> <b>(1.125 - 1.5)</b>	Apply with sufficient water to obtain adequate coverage. Begin applications when plants are in first true leaf stage or when conditions are favorable for disease development. Repeat applications at 7 day intervals (the minimum re-treatment interval is 7 days)
	<b>Downy mildew</b> <i>(Pseudoperonospora cubensis)</i>  <b>Target spot</b> <i>(Corynespora cassicola)</i>	<b>2 - 3</b> <b>(1.5 - 2.25)</b>	
	<b>Cercospora leaf spot</b> <i>(C. citrullina)</i>  <b>Gummy stem blight/vine decline</b> <i>(Didymella bryoniae)</i>  <b>Alternaria leaf blight</b> <i>(A. cucumerina)</i>  <b>Alternaria leaf spot</b> <i>(A. alternata)</i>  <b>Scab</b> <i>(Cladosporium cucumerinum)</i>  <b>Powdery mildew</b> <i>(Sphaerotheca only)</i>		<b>Note</b> Spraying mature watermelons may result in sunburn of the upper surface of the fruit. DO NOT apply Chlorothalonil 720 SC to watermelons when any of the following conditions are present: <ul style="list-style-type: none"> <li>• intense heat and sunlight</li> <li>• drought conditions</li> <li>• poor vine canopy</li> <li>• other crop and environmental conditions which may be conducive to increased natural sunburn</li> </ul> DO NOT combine Chlorothalonil 720 SC 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. Apply by ground, air or chemigation

**Restrictions and Limitations**

- DO NOT apply more than 21 pt Chlorothalonil 720 SC (15.75 lb ai) per A during each growing season
- Chlorothalonil 720 SC may be applied the day of harvest

<b>Grasses Grown for Seed</b>	Stem rust	<b>1 - 1 1/2</b> <b>(0.75 - 1.125)</b>	Apply with sufficient water to obtain adequate coverage. Begin applications during stem elongation when conditions favor disease development. Re-apply at flag (top) leaf emergence and repeat at 14 day intervals (the minimum re-treatment interval is 14 days)
	Leaf rust		
	Stripe rust		
	Septoria leaf spot		
	Glume blotch		
	Bipolaris and Drechslera leaf spots		
			Apply by ground, air or chemigation

Crop	Diseases (Pathogen)	Pint/A (lb ai/A)	Application Directions
	Selenophoma (eyespot)	1 - 2 (0.75 - 1.5)	

**Restrictions and Limitations**

- DO NOT apply more than 6 pt Chlorothalonil 720 SC (4.5 lb ai) per A during each growing season
- 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

<b>Mango</b>	Anthracnose ( <i>Colletotrichum</i> spp.)	2 - 3 1/2 (1.5 - 2.6)	Apply in a water volume of 20 to 300 gallons per A. Begin applications at early bloom and repeat on a 7 - 14 day interval until early fruit development. Begin the season with the 2 pint rate on a 14 day interval (the minimum re-treatment interval is 7 days). If disease pressure is severe use the higher rate and shorter interval.  Ground or air applications only
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**Restrictions and Limitations**

- DO NOT apply more than 32 pt Chlorothalonil 720 SC (24 lb ai) per A during each growing season
- DO NOT apply within 21 days of harvest

<b>Mint</b> (Indiana, Michigan and Wisconsin only)	Rust ( <i>Puccinia menthae</i> )  Septoria leaf spot ( <i>S. menthae</i> )	1 3/8 (1.0)	Apply with sufficient water to obtain adequate coverage normally 20 to 150 gallons per A for dilute sprays and 5 to 10 gallons per A for concentrate ground and aircraft applications. Begin applications when emerging plants are 4 to 8 inches high and repeat at 7 to 10 day intervals to maintain control (the minimum re-treatment interval is 7 days)
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**Restrictions and Limitations**

- DO NOT apply more than 4 pt Chlorothalonil 720 SC (3 lb ai) per A during each growing season
- DO NOT apply within 80 days of harvest
- DO NOT feed fresh or extracted mint hay from treated fields to livestock

Crop	Diseases (Pathogen)	Pint/A (lb ai/A)	Application Directions												
<b>Onion (Dry bulb)</b> <b>Garlic</b>	Botrytis leaf blight ( <i>Botrytis</i> spp )  Purple blotch ( <i>Alternaria porri</i> )  <b>Suppression</b> Botrytis neck rot  Downy mildew ( <i>Peronospora destructor</i> )	1 – 3 (0.75 – 2.25)	<p>Apply with sufficient water to obtain thorough coverage of tops. Chlorothalonil is recommended for use with disease monitoring systems which adjust fungicide rates and frequency of application according to disease hazard. Apply as follows:</p> <table border="1" data-bbox="917 504 1364 745"> <thead> <tr> <th></th> <th>Low Disease Hazard &amp; Prior to Infection</th> <th>Low Disease Hazard &amp; Some Disease Present</th> <th>High Disease Hazard</th> </tr> </thead> <tbody> <tr> <td>Rate per A</td> <td>1 pt</td> <td>1 3/8 pts</td> <td>3 pts</td> </tr> <tr> <td>Frequency</td> <td>10 days</td> <td>7 to 10 days</td> <td>7 days</td> </tr> </tbody> </table> <p>For suppression of neck rot (<i>Botrytis</i> spp ) during storage a minimum of three weekly applications prior to lifting using 1 3/8 to 3 pt of Chlorothalonil 720 SC per A is recommended.</p> <p>The minimum re-treatment interval is 7 days.</p> <p>Apply by ground air or chemigation.</p>		Low Disease Hazard & Prior to Infection	Low Disease Hazard & Some Disease Present	High Disease Hazard	Rate per A	1 pt	1 3/8 pts	3 pts	Frequency	10 days	7 to 10 days	7 days
	Low Disease Hazard & Prior to Infection	Low Disease Hazard & Some Disease Present	High Disease Hazard												
Rate per A	1 pt	1 3/8 pts	3 pts												
Frequency	10 days	7 to 10 days	7 days												

**Restrictions and Limitations**

- DO NOT apply more than 20 pt Chlorothalonil 720 SC (15 lb ai) per A during each growing season
- DO NOT apply within 7 days of harvest

<b>Onion (green bunching)</b> <b>Leek</b> <b>Shallots</b> <b>Onion and Garlic (grown for seed)</b>	Botrytis leaf blight ( <i>Botrytis</i> spp )  Purple blotch ( <i>Alternaria porri</i> )  <b>Suppression</b> Downy mildew ( <i>Peronospora destructor</i> )	1 ½ - 3 (1.125 – 2.25)	<p>Apply with sufficient water to obtain thorough coverage of tops. Begin applications prior to favorable infection periods and repeat at 7 - 10 day intervals for as long as conditions favor disease (the minimum re-treatment interval is 7 days). Use the high rate and a 7 day schedule of applications when heavy dew or rains persist.</p> <p>Apply by ground air or chemigation.</p>
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**Restrictions and Limitations**

- DO NOT apply more than 9 pt Chlorothalonil 720 SC (6.75 lb ai) per A during each growing season
- DO NOT apply within 7 days of harvest on garlic
- DO NOT apply within 14 days of harvest on green bunching onions, leeks or shallots

Crop	Diseases (Pathogen)	Pint/A (lb ai/A)	Application Directions
Papaya	Alternaria fruit spot ( <i>A alternata</i> )  Anthracnose ( <i>Colletotrichum spp</i> )  Stem end rot ( <i>A alternata</i> <i>Colletotrichum spp</i> )	1 ½ - 3 (1 125 – 2 25)	Apply by ground only in sufficient water to obtain adequate coverage of fruit and leaves. Begin treatment when conditions favor development of disease and continue treatments at 14 day intervals until weather conditions no longer favor disease development (the minimum re-treatment interval is 14 days)
<b>Restrictions and Limitations</b> <ul style="list-style-type: none"> <li>DO NOT apply more than 9 pt Chlorothalonil 720 SC (6.75 lb ai) per A during each growing season</li> <li>Chlorothalonil 720 SC may be applied the day of harvest</li> </ul>			
Parsnip	Alternaria leaf spot ( <i>Alternaria spp</i> )  Downy mildew ( <i>Plasmopara crustosa</i> )  Anthracnose ( <i>Colletotrichum spp</i> )  Botrytis blight (gray mold) ( <i>B cinerea</i> )  Bottom rot ( <i>Rhizoctonia</i> )	1 ½ - 2 (1 125 – 1 5)	Apply with sufficient water to obtain adequate coverage. Make the first application at the first sign of disease or when conditions are favorable for infection. Continue applications on a 7 - 10 day schedule (the minimum re-treatment interval is 7 days)  Apply by ground air or chemigation
<b>Restrictions and Limitations</b> <ul style="list-style-type: none"> <li>DO NOT apply more than 8 pt Chlorothalonil 720 SC (6 lb ai) per A during each growing season</li> <li>DO NOT apply within 10 days of harvest</li> </ul>			
Passion Fruit (Hawaii only)	Alternaria fruit and leaf spot ( <i>Alternaria spp</i> )  Anthracnose ( <i>Colletotrichum spp</i> )  Cercospora fruit spot	2 (1 5)	Apply by ground only in sufficient water to obtain adequate coverage of fruit and leaves. Begin applications during late bloom and repeat at 14 day intervals until weather conditions no longer favor disease development (the minimum re-treatment interval is 14 days)
<b>Restrictions and Limitations</b> <ul style="list-style-type: none"> <li>DO NOT apply more than 10 pt Chlorothalonil 720 SC (7.5 lb ai) per A during each growing season</li> <li>DO NOT apply within 7 days of harvest</li> </ul>			
Peanut	Early leaf spot ( <i>Cercospora arachidicola</i> )  Late leaf spot ( <i>Cercosporidium personatum</i> )  Pepper spot ( <i>Leptosphaerulina crassiasca</i> )	1 – 1 ½ (0.75 – 1.125)	Apply with sufficient water for coverage when leaf wetness first occurs or 30 to 40 days after planting. Repeat at 14 day intervals (the minimum re-treatment interval is 14 days). When conditions favor late leaf spot or when rust or web blotch occur, apply 1 ½ pt Chlorothalonil 720 SC per A at 14 day intervals for the remainder of the season.



Crop	Diseases (Pathogen)	Pint/A (lb ai/A)	Application Directions
	Rust ( <i>Puccinia arachidis</i> )  Web blotch ( <i>Phoma arachidicola</i> )	1 ½ (1 125)	Apply by ground air or chemigation If applying by chemigation use 1 ½ pt Chlorothalonil 720 SC per A It is recommended to alternate chemigation applications with ground or aerial applications

**Restrictions and Limitations**

- DO NOT apply more than 12 pt Chlorothalonil 720 SC (9 lb ai) per A during each growing season
- DO NOT apply within 14 days of harvest
- DO NOT allow livestock to graze in treated areas
- DO NOT feed hay or threshings from treated fields to livestock

<b>Potato</b>	Late blight ( <i>Phytophthora infestans</i> )  Early blight ( <i>Alternaria solani</i> )  Botrytis vine rot ( <i>B cinerea</i> )  Black dot ( <i>Colletotrichum coccodes</i> )	¾ (0 6)  then  1 – 1 ½ (0 75 – 1 125)	Begin applications at the low rate when vines are first exposed and leaf wetness occurs Repeat applications at 5 - 10 day intervals (the minimum re-treatment interval is 5 days)  Begin applying the higher label rates at 5 - 10 days intervals when any one of the following events occur <ul style="list-style-type: none"> <li>• Vines close within the rows</li> <li>• Late blight forecasting measures 18 disease severity values (DSV)</li> <li>• The crop reaches 300 P-days</li> </ul> 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  Apply by ground air or chemigation DO NOT exceed a 10 day interval between applications when using chemigation
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**Restrictions and Limitations**

- DO NOT apply more than 15 pt Chlorothalonil 720 SC (11 25 lb ai) per A during each growing season
- DO NOT apply within 7 days of harvest

<b>Soybean</b>	Anthracnose ( <i>Colletotrichum truncatum</i> )  Diaprothe pod and stem rot ( <i>D phaseolorum</i> )  Frogeye leaf spot ( <i>Cercospora sojina</i> )  Purple seed stain		Apply with sufficient water to obtain complete coverage using at least 5 gallons of water per A for aerial application Use the 3 application program in areas having a history of moderate to severe disease intensity The minimum re-treatment interval is 14 days  Apply by ground air or chemigation
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Crop	Diseases (Pathogen)	Pint/A (lb ai/A)	Application Directions
	<p><i>(C kikuchii)</i></p> <p>Cercospora leaf blight <i>(C kikuchii)</i></p> <p>Septoria brown spot <i>(S glycines)</i></p> <p><b>Suppression</b> Rust <i>(Phakopsora pachyrhizi)</i></p>	<p>1 ½ - 2 ¼ (1 125 - 1 7)</p>	<p><b>Two application program</b> 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 - 1 ¼ inches in length Make the second application 14 days later</p>
		<p>1 - 2 (0 75 - 1 5)</p>	<p><b>Three application program</b> 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</p>
	<p>Stem canker <i>(Diaporthe phaseolorum)</i></p>	<p>1 (0 75)</p>	<p>Apply with 10 to 20 gallons of water per A as a band treatment directing spray to provide coverage of entire plant Make the first application at time of emergence of the second trifoliolate leaves (V2) If conditions favor stem canker disease make a second and third application Make all applications at 14 day intervals</p>

**Restrictions and Limitations**

- DO NOT apply more than 6 pt Chlorothalonil 720 SC (4 5 lb ai) per A during each growing season
- DO NOT apply within 6 weeks of harvest
- DO NOT feed hay or threshings from treated fields to livestock

<p><b>Tomato</b></p>	<p><b><u>FOLIAGE</u></b></p> <p>Early blight <i>(Alternaria solani)</i></p> <p>Late blight <i>(Phytophthora infestans)</i></p> <p>Gray leaf spot <i>(Stemphyllium botryosum)</i></p> <p>Gray leaf mold <i>(Fluvia fluva Cladosporium)</i></p> <p>Septoria leaf spot <i>(S lycopersici)</i></p> <p>Target spot <i>(Corynespora cassicola)</i></p>	<p>1 3/8 - 2 (1 0 - 1 5)</p>	<p>Apply with sufficient water to obtain adequate coverage Begin applications when dew or rain occurs and disease threatens Apply on a 7 - 10 day interval for foliage diseases For fruit diseases begin at fruit set and apply on a 7 - 14 day interval Use the highest rate and shortest interval specified when disease conditions are severe The minimum re-treatment interval is 7 days</p> <p>Apply by ground air or chemigation</p>
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Crop	Diseases (Pathogen)	Pint/A (lb ai/A)	Application Directions
	<p><b><u>FRUIT</u></b></p> <p>Anthracnose (<i>Colletotrichum</i> spp )</p> <p>Alternaria fruit rot (black mold) (<i>A alternata</i>)</p> <p>Botrytis gray mold (<i>B cinerea</i>)</p> <p>Late blight fruit rot (<i>P infestans</i>)</p> <p>Rhizoctonia fruit rot (<i>R solani</i>)</p>	<p>2 – 2 ¾ (1.5 – 2.1)</p>	
<p><b>Restrictions and Limitations</b></p> <ul style="list-style-type: none"> <li>• DO NOT apply more than 20 pt Chlorothalonil 720 SC (15 lb ai) per A during each growing season</li> <li>• Chlorothalonil 720 SC may be applied the day of harvest</li> </ul>			

## DIRECTIONS FOR APPLICATION - TREE AND ORCHARD CROPS

Apply Chlorothalonil 720 SC 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 Chlorothalonil 720 SC 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 of Chlorothalonil 720 SC listed may be used

DO NOT allow livestock to graze in treated areas

Crop	Diseases (Pathogens)	Chlorothalonil 720 SC Use Rate		Application Instructions
		Pt/A (lb ai/A)	100 Gallons*	
Almonds	Blossom blight/ brown rot ( <i>Monilinia</i> spp )	4 (3 0)	1 33 (1 0)	Apply with water volumes of 20 – 300 gal per A For blossom blight begin application at popcorn (pink bud) and follow with an application at full bloom If weather is still conducive for disease development another application may be made at petal fall  For control of shothole make an application in the 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  Ground or air applications only
	Shothole ( <i>Wilsonomyces carpophilus</i> )  Scab ( <i>Venturia carpophila</i> )			
<b>Restrictions and Limitations</b>				
<ul style="list-style-type: none"> <li>DO NOT apply more than 25 pt Chlorothalonil 720 SC (18 75 lb ai) per A during each growing season (leaf fall through shuck split)</li> <li>DO NOT apply within 150 days of harvest</li> </ul>				
Filberts (Hazelnuts)	Eastern filbert blight ( <i>Anisogramma anomala</i> )	4 (3 0)	1 33 (1 0)	Apply with water volumes of 20 – 300 gal per A Begin applications at the onset of disease or when weather conditions favor disease development Make applications on a 14 - 28 day schedule using the shorter interval under heavy disease pressure (the minimum re-treatment interval is 14 days)
<b>Restrictions and Limitations</b>				
<ul style="list-style-type: none"> <li>DO NOT apply more than 12 pt Chlorothalonil 720 SC (9 lb ai) per A during each growing season</li> <li>DO NOT apply within 120 days of harvest</li> <li>DO NOT apply through irrigation</li> <li>DO NOT apply with oils other pesticides surfactants or fertilizers</li> <li>DO NOT apply within one week of an oil-based pesticide application</li> </ul>				
Peach Nectarine Apricot	Leaf curl ( <i>Taphrina deformans</i> )	3 1/8 - 4 1/8 (2 3 – 3 1)	1 – 1 3/8 (0 75 – 1 0)	For best control apply at leaf fall in late autumn using sufficient water and proper sprayer calibration to obtain uniform

Crop	Diseases (Pathogens)	Chlorothalonil 720 SC Use Rate		Application Instructions
		Pt/A (lb ai/A)	100 Gallons*	
Cherry Plum Prune	Shot hole ( <i>Wilsonomyces carpophilus</i> )			coverage When conditions favor high disease levels use the high rate of application and apply once or twice more in mid to late winter before budswell If the leaf fall application is not practical application of Chlorothalonil 720 SC for control of leaf curl may be made at any time prior to budswell the following spring Where shothole occurs also apply at budbreak to protect newly emerging leaves and at shuck split to prevent fruit infections  Ground or air applications only
	Lacy (russet) scab (Plum / Prune)  Brown rot blossom blight ( <i>Monilinia</i> spp )	3 1/8 - 4 1/8 (2.3 - 3.1)	1 - 1 3/8 (0.75 - 1.0)	Make one application at popcorn (pink red or early white bud) and a second application at full bloom If weather conditions favor disease development make an additional application at petal fall
	Cherry leaf spot ( <i>Blumerella jaapii</i> )  Scab ( <i>Cladosporium carpophilum</i> )  Black knot (Cherry Plum) ( <i>Apiosporina morbosa</i> )	3 1/8 - 4 1/8 (2.3 - 3.1)	1 - 1 3/8 (0.75 - 1.0)	In addition to the bloom application listed above make one application at shuck split Do not apply Chlorothalonil 720 SC after shuck split and before harvest If additional disease control is needed before harvest use another registered fungicide  For control of cherry leaf spot after harvest make one application to foliage within 7 days after fruit is removed In orchards with a history of high leaf spot incidence make a second application 10 - 14 days later  Ground or air applications only
<b>Restrictions and Limitations</b> <ul style="list-style-type: none"> <li>• DO NOT apply more than 20.5 pt Chlorothalonil 720 SC (15.4 lb ai) per A during each growing season</li> <li>• Chlorothalonil 720 SC may be applied the day of harvest</li> <li>• The minimum re treatment interval is 10 days</li> </ul>				
Pistachio	Botryosphaeria blight ( <i>B dothidea</i> )	6 (4.5)	3 (2.25)	Apply with water volumes of 20 - 200 gal per A 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 interval (The minimum re treatment interval is 28 days) For Septoria and Botrytis use the higher rate if disease pressure is severe
	Suppression Alternaria late blight ( <i>A alternata</i> )  Septoria leaf spot ( <i>S pistacina</i> )	4 - 6 (3.0 - 4.5)	2 - 3 (1.50 - 2.25)	

Crop	Diseases (Pathogens)	Chlorothalonil 720 SC Use Rate		Application Instructions
		Pt/A (lb ai/A)	100 Gallons*	
	Botrytis blight ( <i>B cinerea</i> )			(epicarp) This effect is superficial and has not resulted in any change in nut quality  Ground or air applications only

**Restrictions and Limitations**

- DO NOT apply more than 30 pt Chlorothalonil 720 SC (22.5 lb ai) per A during each growing season
- DO NOT apply within 14 days of harvest

Conifers (Pines Spruces)	Swiss needlecast ( <i>Phaeocryptopus gaeumannii</i> )	2 3/4 - 5 1/2 (2.1 - 4.125)	2 3/4 - 5 1/2 (2.1 - 4.125)	<b>Single application technique</b> In Christmas tree plantations or conifer stands make one application in the spring when new shoot growth is 1/2 to 2 inches in length  Make the first application in spring when new shoot growth is 1/2 to 2 inches in length. Make additional applications at 3 to 4 week intervals until conditions no longer favor disease development. For use in nursery beds apply the highest rate specified on a 3 week schedule
	Sclerodermis canker (Pines) ( <i>Gremmeniella abietina</i> )  Swiss needlecast ( <i>Phaeocryptopus gaeumannii</i> )	1 1/2 - 2 3/4 (1.125 - 2.1)	1 1/2 - 2 3/4 (1.125 - 2.1)	
	Sirococcus tip blight ( <i>S conigenus</i> )	2 - 3 1/2 (1.5 - 2.6)	2 - 3 1/2 (1.5 - 2.6)	
	Rhizosphaera needlecast (Spruces) ( <i>Rhizosphaera spp</i> )  Scirrhia brown spot (Pines) ( <i>Mycosphaerella dearnessii</i> )	5 1/2 (4.125)	5 1/2 (4.125)	
	Cyclaneusma and Lophodermium needlecasts (Pines)	2 3/4 - 5 1/2 (2.1 - 4.125)	2 3/4 - 5 1/2 (2.1 - 4.125)	
	Rhabdocline needlecast (Douglas-fir)	1 1/2 - 2 3/4 (1.125 - 2.1)	1 1/2 - 2 3/4 (1.125 - 2.1)	

Crop	Diseases (Pathogens)	Chlorothalonil 720 SC Use Rate		Application Instructions
		Pt/A (lb ai/A)	100 Gallons*	
				trees have broken bud then every 3 to 4 weeks as specified above In nursery beds use the high rate on a 3-week schedule
	Botrytis seedling blight Phoma twig blight	1 ½ - 2 ¾ (1 125 - 2 1)	1 ½ - 2 ¾ (1 125 - 2 1)	Begin applications in nursery beds when seedlings are 4 inches tall and when cool moist conditions favor disease development Make additional applications at 7 - 14 day intervals as long as disease favorable conditions persist
	Autoecious needle rust (Weir's cushion) (Spruce)	5 ½ (4 125)	5 ½ (4 125)	Begin applications when 10% of buds have broken and twice thereafter at 7 - 10 day intervals

**Restrictions and Limitations**

- DO NOT apply more than 22 pt Chlorothalonil 720 SC (16.5 lb ai) per A during each growing season
- The minimum re-treatment interval is 21 days The minimum re-treatment interval in nursery beds is 7 days
- DO NOT use on forests

\*Volumetric rates to be used only with full dilute spray volume specified on this label for tree and orchard crops

Crop	Disease	Chlorothalonil 720 SC Use Rate	Application Instructions
		fl oz / 1,000 sq ft	
Mushroom	Verticillium brown spot Dry bubble	2.75 - 5.5	Apply as a drench to the mushroom bed surface in at least 12.5 gallons of water per 1,000 sq ft of mushroom bed Make two applications Apply the high rate (5.5 fl oz) of Chlorothalonil 720 SC in the first application and the low rate (2.75 fl oz) of Chlorothalonil in the second application The first application should be made within two days of top-dressing the spawn-colonized mushroom compost with a casing layer The second application should be made at pinning

**Restrictions and Limitations**

- DO NOT apply within 5 days of first harvest
- DO NOT make more than two applications per cropping cycle
- DO NOT apply more than 8.25 fl oz of Chlorothalonil 720 SC per 100 sq ft per cropping cycle

**Warranty and Disclaimer Statement**

The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Such risks may arise from weather conditions, soil factors, off-target movement, unconventional farming techniques, the presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of Arysta LifeScience North America LLC (Arysta) and can cause crop injury, injury to non-target crops or plants, ineffectiveness of the product, or other unintended consequences. All such risks shall be assumed by the user or buyer. Arysta warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions. This warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to Arysta, and is subject to the inherent risks described above.

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ARYSTA DISCLAIMS ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ARYSTA, MANUFACTURER, AND SELLER DISCLAIM AND SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE, HANDLING, APPLICATION, STORAGE, OR DISPOSAL OF THIS PRODUCT OR FOR DAMAGES IN THE NATURE OF PENALTIES. AND THE USER AND BUYER WAIVE ANY RIGHT THAT THEY MAY HAVE TO SUCH DAMAGES. NO AGENT, REPRESENTATIVE OR EMPLOYEE OF ARYSTA IS AUTHORIZED TO MAKE ANY WARRANTY, GUARANTEE OR REPRESENTATION BEYOND THOSE CONTAINED HEREIN OR TO MODIFY THE WARRANTIES CONTAINED HEREIN.**

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER AND THE TOTAL LIABILITY OF ARYSTA, MANUFACTURER, AND SELLER SHALL BE LIMITED TO THE PURCHASE PRICE PAID, OR AT ARYSTA'S ELECTION, THE REPLACEMENT OF THE PRODUCT.**

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Latron B 1956 and latron AG 98 are registered trademarks of Dow AgroSciences LLC  
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**CHLOROTHALONIL720SC (PENDING) 05/21/12**



# Chlorothalonil 720 SC Flowable Fungicide

## Turf and Ornamental Fungicide

**ACTIVE INGREDIENT**

Chlorothalonil (tetrachloroisophthalonitrile)

54.0%

**INERT INGREDIENTS**

46.0%

**TOTAL**

100.0%

This product contains 6.0 pounds of chlorothalonil per gallon (720 g 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)

**See inside booklet for additional precautionary statements  
For Product Use Information Call 1-866-761-9397**

#### FIRST AID

<b>IF SWALLOWED</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor for treatment advice</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor</li> <li>• Have person sip a glass of water if able to swallow</li> </ul>
<b>IF ON SKIN OR CLOTHING</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing</li> <li>• Rinse skin with plenty of water for 15–20 minutes</li> <li>• Get medical attention if irritation persists</li> </ul>
<b>IF INHALED</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air</li> <li>• If person is not breathing call 911 or an ambulance then give artificial respiration preferably mouth to mouth if possible</li> <li>• Call a poison control center or doctor for further treatment advice</li> </ul>
<b>IF IN EYES</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes</li> <li>• Remove contact lenses if present after the first 5 minutes then continue rinsing</li> <li>• Call a physician if irritation persists</li> </ul>

#### NOTE TO PHYSICIAN

Persons suffering with temporary allergic skin reactions may respond to treatment with oral antihistamines and topical or oral steroids

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

#### HOTLINE NUMBERS

##### FOR 24-HOUR MEDICAL EMERGENCY ASSISTANCE

Call PROSAR at 1-866 303-6952 or 1-651 8946 if calling from outside of the U S

##### FOR 24-HOUR CHEMICAL EMERGENCY ASSISTANCE

Spill leak fire exposure or accident Call CHEMTREC at 1-800-424 9300 or 1 703-527-3887 if calling from outside of the U S

Arysta LifeScience North America, LLC  
15401 Weston Parkway, Suite 150  
Cary, NC 27513  
ADXXXXXX

EPA Reg No 66330-362

EPA Est No

NET WEIGHT \_\_\_\_\_

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION** Harmful if swallowed absorbed through skin or inhaled Causes moderate eye irritation Avoid contact with skin eyes or clothing Avoid breathing spray mist Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical resistant to this product are made of any waterproof material If you want more options follow the instructions for category A on an EPA chemical resistance category selection chart

### Mixers, loaders, applicators and all other handlers who handle this pesticide must wear

- Long-sleeved shirt and long pants
- Chemical resistant gloves made of any waterproof material – Category A (e.g. barrier laminate butyl rubber nitrile rubber neoprene rubber natural rubber polyethylene polyvinyl chloride (PVS) or viton)
- Shoes plus socks
- A NIOSH approved dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C) or a NIOSH approved respirator with any N R P or HE filter for applicators and handlers in enclosed areas such as a greenhouse

### USER SAFETY REQUIREMENTS

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 Discard clothing or other materials that have been drenched or heavily contaminated with this product s concentrate Do not reuse them

### ENGINEERING CONTROLS STATEMENT

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

### USER SAFETY RECOMMENDATIONS

#### Users should

- Wash hands before eating drinking chewing gum using tobacco or using the toilet
- 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
- Remove clothing immediately if pesticide gets inside Then wash thoroughly and put on clean clothing

### 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

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

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

## 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 or pets either directly or through drift Only protected handlers may be in the area during application For any requirements specific to your State or Tribe consult the agency responsible for pesticide regulation

### AGRICULTURAL USE REQUIREMENTS

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

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

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated such as plants soil or water is long-sleeved shirt and long pants or coveralls shoes plus socks chemical resistant gloves made of any waterproof material such as nitrile butyl neoprene and / or barrier laminate and protective eyewear

**Special Eye Irritation Provisions** This product is a severe eye irritant Although the restricted entry interval expires after 12 hours for the next 6 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
- 2 Workers must be informed in a manner they can understand
  - That residues in the treated area may be highly irritating to their eyes
  - That 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 eyeflush container that is located at the decontamination site or using other readily available clean water and
  - How to operate the eyeflush container

### NON-AGRICULTURAL USE REQUIREMENTS

THE REQUIREMENTS IN THIS BOX APPLY TO USES OF THIS PRODUCT THAT ARE not WITHIN THE SCOPE OF THE Worker Protection Standard for agricultural pesticides (40 CFR Part 170) The WPS applies when this product is used to produce agricultural plants on farms forests nurseries or greenhouses

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

### STORAGE AND DISPOSAL

Do not contaminate water food or feed by storage or disposal

#### PESTICIDE STORAGE

Store in original container and keep tightly closed Store in a cool dry place Protect from excessive heat

#### PESTICIDE DISPOSAL

Pesticide wastes are toxic Improper disposal of excess pesticide pesticide spray or rinsate is a violation of federal law If these wastes cannot be disposed of by use according to label instructions contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance

#### CONTAINER HANDLING

**Containers equal to or less than 5 gallons** Nonrefillable container Do not reuse or refill this container Triple rinse container (or equivalent) 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 ¼ 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

Offer for recycling if available or puncture and dispose of in a sanitary landfill

**Containers greater than 5 gallons** Nonrefillable container Do not reuse or refill this container Triple rinse container (or equivalent) promptly after emptying Triple rinse as follows Empty the remaining contents into application equipment or a mix tank Fill the container ¼ 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

Offer for recycling if available or puncture and dispose of in a sanitary landfill

#### Returnable Refillable Containers/ Bulk and Minibulk Containers

**Return container intact to point of purchase** Refillable container Refill this container with pesticide only 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 a mix tank Fill the container about 10 percent full with water Agitate vigorously or recirculate water with pump for 2 minutes Pour or pump rinsate into application equipment or rinsate collection system Repeat this rinsing procedure two more times

**PRODUCT INFORMATION**

Chlorothalonil 720 SC is an excellent disease control agent when used according to label directions for control of a broad spectrum of plant diseases Chlorothalonil 720 SC is recommended 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 post scouting and disease forecasting systems which reduce unnecessary applications of pesticides

Chlorothalonil 720 SC is effective in programs to minimize disease resistance to fungicides Chlorothalonil 720 SC with a multi-site mode of action may be used to delay or prevent the development of resistance to single-site fungicides Consult your federal or state Cooperative Extension Service representatives for guidance on the proper use of Chlorothalonil in programs which seek to minimize the occurrence of disease resistance to other fungicides

Chlorothalonil can be used effectively in dilute or concentrate sprays Thorough uniform coverage is essential for disease control

**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

Agricultural Use Sites Only (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

Do not combine Chlorothalonil 720 SC in the spray tank with pesticides surfactants or fertilizers unless prior use has shown the combination physically compatible effective and noninjurious under your conditions of use Do not combine Chlorothalonil 720 SC with DiPel® or Latron B-1956® as phytotoxicity may result from the combination when applied to some species on this label

**PRECAUTIONS**

The required amount of Chlorothalonil 720 SC should be added slowly into the spray tank during filling With concentrate sprays pre-mix the required amount of Chlorothalonil 720 SC 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

**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 use sites These requirements do not apply to forestry applications public health uses or to applications using dry formulation

- 1 The distance of the outer most nozzles on the boom must not exceed ¾ the length of the wingspan or rotor
- 2 Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees

Where states have more stringent regulations they should be observed

The applicator should be familiar with and take into account the information covered in the *Spray Drift Management section*

**Spray Drift Management**

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

**Information on Droplet Size**

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

**Controlling Droplet Size**

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

**Boom Length**

For some use patterns reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

**Application Height**

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

**Swath Adjustment**

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

**Wind**

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

**Temperature and Humidity**

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

**Temperature Inversions**

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

**Sensitive Areas**

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

**APPLICATION INSTRUCTIONS**

**APPLICATION AND CALIBRATION TECHNIQUES FOR SPRINKLER IRRIGATION – CHEMIGATION**

Apply this product only through sprinkler irrigation systems including center pivot, motorized lateral move, 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. Do not use Chlorothalonil 720 SC through sprinkler irrigation equipment on golf courses.

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 drain located between the irrigation water pump and the check valve to prevent back siphoning of treated irrigation water into the water source.

**Always inject Chlorothalonil 720 SC 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.

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes, or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public.

Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall and all letters and the symbol shall be a color that sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.

The sign is in addition to any sign posted to comply with the Worker Protection Standard.

Chlorothalonil 720 SC 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 – 3 times those encountered within the irrigation water line. Venturi applicator units cannot be used on these systems.

Fill chemical supply tank of injection equipment with water. Operate system for one complete revolution or run across the field measuring time required amount of water injected and acreage covered.

Thoroughly mix recommended amount of Chlorothalonil 720 SC for acreage to be covered to 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 Chlorothalonil 720 SC 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 thirty to forty-five minute period. Mix desired amount of Chlorothalonil 720 SC for acreage to be covered with water so that the total mixture of Chlorothalonil 720 SC 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. Chlorothalonil 720 SC 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 Chlorothalonil 720 SC has been cleared from last sprinkler head.

**DIRECTIONS FOR APPLICATION - TURF**

Chlorothalonil 720 SC can be used to control diseases on turf on golf courses and sod farms.

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.

**Turf Group A For Golf Course Fairways and Sod Farms**

- DO NOT use for sod farms at application rates greater than 13 lb ai per A per year.
- For fairways DO NOT apply more than 34.7 pt/A (12.7 fl oz/1,000 sq ft) of Chlorothalonil 720 SC per growing season (26 lb ai/A/growing season).
- The minimum re-treatment interval for single application rates up to 9.75 pt/A (3.6 fl oz/1,000 sq ft) of Chlorothalonil 720 SC (7.3 lb ai/A) is 7 days.
- The minimum re-treatment interval after an application of a rate greater than 9.75 pt/A (3.6 fl oz/1,000 sq ft) of Chlorothalonil 720 SC (7.3 lb ai/A) is 14 days.
- DO NOT apply more than one application of a rate greater than 9.75 pt/A (3.6 fl oz/1,000 sq ft) of Chlorothalonil 720 SC (7.3 lb ai/A) per growing season.
- The maximum single application rate is 15.1 pt/A (5.5 fl oz/1,000 sq ft) of Chlorothalonil 720 SC (11.3 lb ai/A).

- Apply Chlorothalonil 720 SC in 43.5 - 87 gallons of water per acre. Begin applications when conditions favor disease development and repeat applications as long as these conditions persist. Under severe disease conditions use the highest rate and shortest interval corresponding with the application schedule selected from the table below.
- DO NOT mow or water after treatment until spray deposited on turfgrass is thoroughly dry. Chlorothalonil 720 SC should always be used in conjunction with good turf management practices.
- Sod farm turf treated with chlorothalonil prior to harvest must be mechanically cut, rolled and harvested.

**Turf Group B. For Golf Course Tees and Greens**

**Golf Course Tees**

- DO NOT apply more than 69.3 pt/A (25.4 fl oz/1,000 sq ft) of Chlorothalonil 720 SC per growing season (52 lb ai/A/growing season).
- The minimum re-treatment interval for single application rate up to 9.75 pt/A (3.6 fl oz/1,000 sq ft) of Chlorothalonil 720 SC (7.3 lb ai/A) is 7 days.
- The minimum re-treatment interval after an application of a rate greater than 9.75 pt/A (3.6 fl oz/1,000 sq ft) of Chlorothalonil 720 SC (7.3 lb ai/A) is 14 days.
- DO NOT apply more than two applications of a rate greater than 9.75 pt/A (3.6 fl oz/1,000 sq ft) of Chlorothalonil 720 SC (7.3 lb ai/A) per growing season.
- The maximum single application rate is 15.1 pt/A (5.5 fl oz/1,000 sq ft) of Chlorothalonil 720 SC (11.3 lb ai/A).
- Apply Chlorothalonil 720 SC in 43.5 - 87 gallons of water per acre. Begin applications when conditions favor disease development and repeat applications as long as these conditions persist. Under severe disease conditions use the highest rate and shortest interval corresponding with the application schedule selected from the table below.
- DO NOT mow or water after treatment until spray deposited on turfgrass is thoroughly dry. Chlorothalonil 720 SC should always be used in conjunction with good turf management practices.

**Golf Course Greens**

- DO NOT apply more than 97.3 pt/A (35.7 fl oz/1,000 sq ft) of Chlorothalonil 720 SC per growing season (73 lb ai/A/growing season).
- The minimum re-treatment interval for single application rate up to 9.75 pt/A (3.6 fl oz/1,000 sq ft) of Chlorothalonil 720 SC (7.3 lb ai/A) is 7 days.
- The minimum re-treatment interval after an application of a rate greater than 9.75 pt/A (3.6 fl oz/1,000 sq ft) of Chlorothalonil 720 SC (7.3 lb ai/A) is 14 days.
- DO NOT apply more than two applications of a rate greater than 9.75 pt/A (3.6 fl oz/1,000 sq ft) of Chlorothalonil 720 SC (7.3 lb ai/A) per growing season.
- The maximum single application rate is 15.1 pt/A (5.5 fl oz/1,000 sq ft) of Chlorothalonil 720 SC (11.3 lb ai/A).
- Apply Chlorothalonil 720 SC in an adequate amount of water to provide complete coverage. This amount may vary from 87 to 450 gallons per acre. See table below for suggested rates and timing. Under severe disease conditions use the highest rate and shortest interval corresponding with the application schedule selected from the table below.
- DO NOT mow or water after treatment until spray deposited on turfgrass is thoroughly dry. Chlorothalonil 720 SC should always be used in conjunction with good turf management practices.

<b>Diseases Controlled</b>	<b>A</b>	<b>Pre-Disease Rates<sup>1</sup></b>
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	P P I N T E R V A L ( D A Y S )	fl oz/ 1,000 sq ft	pt/A	Lb ai/A
<b>Algae<sup>2</sup></b>	7 - 14	20 - 36	55 - 975	41 - 73
<b>Anthracnose</b> ( <i>Colletotrichum graminicola</i> )	7 - 14 14	30 - 36 36 - 55	83 - 975 99 - 151	62 - 73 74 - 113
<b>Brown Patch</b> ( <i>Rhizoctonia solani</i> )	7 - 14	20 - 36	55 - 975	41 - 73
<b>Copper Spot</b> ( <i>Gloeocercospora sorghi</i> )	14	40 - 55	11 - 151	825 - 113
<b>Dichondra Leaf Spot (CA only)</b> ( <i>Alternaria</i> spp)	14	40 - 55	11 - 151	825 - 113
<b>Dollar Spot</b> ( <i>Sclerotinia homeocarpa</i> Lanza or <i>Moellerodiscus</i> spp)	7 - 10 7 - 21	10 <sup>5</sup> - 20 20 - 36	28 <sup>5</sup> - 50 55 - 975	21 <sup>5</sup> - 41 41 - 73
<b>Fusarium Patch (Gerlachia)<sup>3</sup></b> ( <i>Microdochium nivale</i> )	21 - 28	55	151	113
<b>Gray Leaf Spot</b> ( <i>Pyricularia grisea P. oryzae</i> )	7 - 10	20 - 36	55 - 975	41 - 73
<b>Gray Snow Mold<sup>4</sup></b> ( <i>Typhula</i> spp)	30	55	151	113
<b>Leaf Spot , Melting Out, Brown Blight</b> ( <i>Bipolaris sorokiniana</i> <i>Drechslera</i> spp (including <i>D. poae</i> <i>D. siccans</i> ) <i>Curvularia</i> spp)	7 - 10 7 - 21	20 20 - 36	55 55 - 975	41 41 - 73
<b>Red Thread</b> ( <i>Laetisaria fuciformis</i> )	7 - 10 14	20 - 36 36 - 55	55 - 975 99 - 151	41 - 73 74 - 113
<b>Stem Rust (Bluegrass)</b> ( <i>Puccinia graminis</i> )	14	40 - 55	11 - 151	825 - 113

Diseases Controlled	App Interval (days)	Post-Disease Rates <sup>1</sup>		
		fl oz/ 1,000 sq ft	pt/A	Lb ai/A
<b>Algae<sup>2</sup></b>	7 14 14	2 0 – 3 6 4 0 – 5 5	5 5 – 9 75 11 – 15 1	4 1 – 7 3 8 25 – 11 3
<b>Brown Patch</b> ( <i>Rhizoctonia solani</i> )	14	4 0 – 5 5	11 – 15 1	8 25 – 11 3
<b>Copper Spot</b> ( <i>Gloeocercospora sorghi</i> )	14	5 5	15 1	11 3
<b>Dichondra Leaf Spot (CA only)</b> ( <i>Alternaria</i> spp)	14	5 5	15 1	11 3
<b>Dollar Spot</b> ( <i>Sclerotinia homeocarpa</i> Lanza or <i>Moellerodiscus</i> spp)	14	4 0 – 5 5	11 – 15 1	8 25 – 11 3
<b>Gray Leaf Spot</b> ( <i>Pyricularia grisea</i> <i>P. oryzae</i> )	14	4 0 – 5 5	11 – 15 1	8 25 – 11 3
<b>Leaf Spot , Melting Out, Brown Blight</b> ( <i>Bipolaris sorokiniana</i> <i>Drechslera</i> spp (including <i>D. poae</i> <i>D. siccans</i> ) <i>Curvularia</i> spp)	14	4 0 – 5 5	11 – 15 1	8 25 – 11 3
<b>Red Thread</b> ( <i>Laetisaria fuciformis</i> )	14	5 5	15 1	11 3
<b>Stem Rust (Bluegrass)</b> ( <i>Puccinia graminis</i> )	14	5 5	15 1	11 3

**NOTES**

- Turf Group A** Limit of one application per season at rates greater than 7 3 lb ai/A (9 75 pt/A or 3 6 fl oz/1 000 sq ft) of Chlorothalonil 720 SC

**Turf Group B** Limit of two applications per season at rates greater than 7 3 lb ai/A (9 75 pt/A or 3 6 fl oz/1 000 sq ft) of Chlorothalonil 720 SC
- Turf Groups A & B** For prevention of algae on turfgrasses apply Chlorothalonil 720 SC at the rate of 5 5 – 9 75 pt/A (2 0 – 3 6 fl oz/1 000 sq ft) (4 1 – 7 3 lb ai/A) on a 7 – 14 day schedule Under severe algae conditions use the 9 75 pt/A (3 6 fl oz/1 000 sq ft) rate and apply on a 7-day interval When algae is well established every attempt should be made to dry out the afflicted area Once dry spiking or verticutting should be done to enhance turfgrass recover in conjunction with a Chlorothalonil 720 SC application at the rate of 11 to 15 1 pt/A (4 0 – 5 5 fl oz/1 000 sq ft) **Turf Group B** A second application of Chlorothalonil 720 SC at the 15 1 pt/A (5 5 fl oz/1 000 sq ft) rate may be made 14 days after the first application **Turf Groups A & B** Following applications of the 15 1 pt/A (5 5 fl oz/1 000 aw ft) rate several applications of Chlorothalonil 720 SC at a rate of 5 5 – 9 75 pt/A (2 0 – 3 6 fl oz/1 000 sq ft) (4 1 – 7 3 lb ai/A) on a 7 to 14 day interval may be necessary for turfgrass recovery Only a preventive spray program with Chlorothalonil 720 SC will prevent a recurrence of the algae when environmental conditions are favorable
- Turf Groups A & B** In areas where pink snow mold (*Gerachia* or *Fusarium* patch) is likely to occur apply Chlorothalonil 720 SC at 15 1 pt/A (5 5 fl oz/1 000 sq ft) (11 3 lb ai/A) in combination with products containing iprodione at 88 oz ai/A (2 oz ai/1 000 sq ft) of turf area 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 15 1 pt/A (5 5 fl oz/1 000 sq ft) of Chlorothalonil 720 SC (11 3 lb ai/A) Make application in late autumn **Turf Group B** Apply a second application of 15 1 pt/A (5 5 fl oz/1 000 sq ft) of Chlorothalonil 21 to 28 days after the first application unless conditions favorable for *Fusarium* patch no longer prevail
- Turf Group A & B** For Gray snow mold caused by *Typhula* spp apply in sufficient water to obtain adequate coverage (2 to 10 gallons per 1 000 sq ft) Apply one application 15 1 pt/A (5 5 fl oz/1 000 sq ft) of Chlorothalonil (11 3 lb ai/A) Application must be made before snow cover in autumn **Turf Group B** If snow cover is intermittent or

lacking during the winter a second application of Chlorothalonil 720 SC at 15.1 pt/A (5.5 fl oz/1 000 sq ft) may be applied one month after the first application

5 Low rate is not effective on intensively mowed turfgrasses such as golf course and greens

**DIRECTIONS FOR APPLICATION - ORNAMENTAL PLANTS**

Apply Chlorothalonil 720 SC at a rate of 1 3/8 pt (1.0 lb ai) per 100 gallons of water unless other directions are given in the tables below DO NOT apply more than 48.5 pt Chlorothalonil 720 SC (36.4 lb ai/A) per growing season to field grown ornamentals Apply in a spray to the point of drip when conditions are favorable for disease development 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 Chlorothalonil 720 SC at 7 day intervals The minimum re-treatment interval is 7 days Chlorothalonil 720 SC should be applied to plants when both foliage and flowers are dry or nearly dry

**RESTRICTIONS**

DO NOT combine Chlorothalonil 720 SC in the 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

Treated plants and fruits from treated plants **MUST NOT BE EATEN**

Chlorothalonil 720 SC may be used in greenhouses DO NOT use mistblowers or high pressure spray equipment when making applications of Chlorothalonil 720 SC in greenhouses

**PRECAUTIONS**

Chlorothalonil 720 SC is recommended for control of 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 Chlorothalonil 720 SC at the recommended rates The user should test for possible phytotoxic responses using recommended rates on ornamental plants on a small area prior to commercial use Applications made during bloom may damage flowers and/or fruits

**ORNAMENTALS RECOMMENDED FOR TREATMENT WITH CHLOROTHALONIL 720 SC**

Broadleaf Shrubs and Trees		
Andromeda ( <i>Pieris</i> ) <sup>4</sup>	Flowering Almond <sup>1 2</sup>	Oregon-Grape ( <i>Mahonia</i> ) <sup>6</sup>
Ash ( <i>Fraxinus</i> ) <sup>1</sup>	Flowering Cherry <sup>1 2</sup>	Photinia <sup>1</sup>
Aspen <sup>1</sup>	Flowering Peach <sup>1 2</sup>	Poplar <sup>1</sup>
Azalea <sup>1 2 4</sup>	Flowering Plum <sup>1 2</sup>	Privet ( <i>Ligustrum</i> ) <sup>1</sup>
Buckeye Horsechestnut <sup>1</sup>	Flowering Quince <sup>1 2</sup>	Rhododendron <sup>1 2 4</sup>
Cherry Laurel <sup>1</sup>	Hawthorn <sup>1 6</sup>	Sand Cherry <sup>1 2</sup>
Crabapple <sup>1 6 8</sup>	Holly <sup>1</sup>	Sequoia <sup>1</sup>
Dogwood <sup>1</sup>	Lilac <sup>5</sup>	Spiraea <sup>1</sup>
Eucalyptus <sup>3</sup>	Magnolia <sup>1</sup>	Sycamore Planetree <sup>1</sup>
Euonymus <sup>1</sup>	Mountain Laurel <sup>1</sup>	Viburnum <sup>5</sup>
Firethorn ( <i>Pyracantha</i> ) <sup>1</sup>	Oak (red group only) <sup>1 7</sup>	Walnut ( <i>Juglans</i> ) <sup>1</sup>

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

Geranium <sup>1 6</sup>	Petunia <sup>1 4</sup>	
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- <sup>a</sup> Avoid applications during bloom period on plants where flower injury is unacceptable
- <sup>b</sup> Discontinue applications prior to bract formation phytotoxicity is possible on the bracts
- <sup>c</sup> Use 1 pint of Chlorothalonil 720 SC per 100 gallons of water

Foliage Plants		
Aglaonema <sup>1</sup> Areca palm <sup>1</sup> Artemisia <sup>1</sup> Boston fern <sup>1</sup> Dumbcane ( <i>Dieffenbachia</i> ) <sup>1</sup> Dracaena <sup>1</sup> Fatsia ( <i>Aralia</i> ) <sup>1</sup>	Ficus <sup>1</sup> Florida Ruffle Fern <sup>1</sup> Leatherleaf Fern <sup>1</sup> Lipstick plant <sup>1</sup> Ming aralia <sup>1</sup> Oyster plant ( <i>Rhoeo</i> ) <sup>1</sup> Pachysandra <sup>d 1</sup>	Parlor palm ( <i>Chamaedorea</i> ) <sup>1</sup> Peperomia <sup>1</sup> Philodendron <sup>1 4</sup> Prayer plant ( <i>Maranta</i> ) <sup>1</sup> Syngonium <sup>1</sup> Zebra plant ( <i>Aphelandra</i> ) <sup>1</sup>

<sup>d</sup> Use 2 ¾ pt of Chlorothalonil 720 SC per 100 gallons of water

**Note** DO NOT apply Chlorothalonil 720 SC to either green or variegated Pittosporum or to Schefflera as multiple applications have been demonstrated to cause phytotoxic responses

**DISEASES CONTROLLED WITH CHLOROTHALONIL 720 SC**

1 Leafspots & Foliar Blights	
Actinopelte leafspot Alternaria leafspot or leaf blight Anthracnose leaf blotch spot Anthracnose blight ( <i>Discula</i> ) Ascochyta blight Bipolaris leafspot ( <i>Helminthosporium</i> ) Black spot on roses Botrytis leafspot leaf blight Cephalosporium leafspot Cercospora leafspot Cercosporidium leafspot Corynespora leafspot Coryneum blight (shot-hole) Curvularia leafspot Cylindrosporium leafspot Dactylaria leafspot Didymellina leafspot	Drechslera leafspot Fabraea leafspot ( <i>Entomosporium</i> ) Gloeosporium black leafspot Ink spot ( <i>Drechslera</i> ) Marssonina leafspot Monilinia blossom blight twig blight Mycosphaerella ray blight Myrothecium leafspot brown rot Nematostoma leaf blight Phyllosticta leafspot Ramularia leafspot Rhizoctonia web blight Septoria leafspot Sphaeropsis leafspot Stagonospora leaf scorch Tan leaf spot ( <i>Curvularia</i> ) Volutella leaf blight

2 Flower Spots and Blights	
Botrytis flower spot flower blight Curvularia flower spot Monilinia blossom blight	Ovulinia flower blight Rhizopus blossom blight Sclerotinia flower blight

3 Cylindrocadium stem canker
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4 Phytophthora leaf blight, dieback
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5 Powdery mildews
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<i>Erysiphe cichoracearum</i>	<i>Microsphaera</i> spp
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**6 Rusts**

<i>Gymnosporangium</i> spp <i>Pucciniastrum hydrangeae</i>	<i>Puccinia</i> spp
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**7 Taphrina blister**

**8 Scab (*Venturia inaequalis*)**

### DIRECTIONS FOR APPLICATION - TREE AND ORCHARD CROPS

Apply Chlorothalonil 720 SC in sufficient water and with proper calibration to obtain uniform coverage of tree canopy. Application with ground equipment is preferable to aerial application because ground applications generally give better coverage of the tree canopy. If application with ground equipment is not feasible, Chlorothalonil 720 SC may be applied with aircraft using at least 20 gallons of spray per acre. When concentrate sprays are used or when treating non-bearing or immature trees, the lower rate of Chlorothalonil 720 SC listed may be used. DO NOT allow livestock to graze in treated areas. The following spray volumes are recommended as gallons of spray per acre.

Crop	Spray Volume (Gallons per A)	
	Concentrate	Dilute
Peach Nectarine Apricot Tart Cherry Plum Prune	20	300
Sweet Cherry	20	400
Conifers		
Conifer stands	10 – 20 (aircraft)	Not used
Christmas trees	10 – 50 (aircraft or ground equipment)	100
Nursery beds	5 – 10 (ground equipment only)	100

Crop	Diseases	Chlorothalonil 720 SC Use Rate		Application Instructions
		Pt/A (lb ai/A)	100 Gallons* (lb ai/100 gallons)	
Peach Nectarine Apricot Cherry Plum Prune	Leaf curl	3 1/8 - 4 1/8 (2.3 - 3.1)	1 - 1 3/8 (0.75 - 1.0)	For best control of both diseases apply at leaf fall in late autumn using sufficient water and proper sprayer calibration to obtain uniform coverage. When conditions favor high disease levels use the high rate of application and apply once or twice more in mid to late winter before budswell. If the leaf fall application is not practical, application of Chlorothalonil 720 SC for control of leaf curl may be made at any time prior to budswell the following spring. Where Coryneum blight (shothole) occurs, also apply at budbreak to protect newly emerging leaves and at shuck split to prevent fruit infections.
	Coryneum blight (shothole)			
	Lacy (russet) scab (Plum / Prune)	3 1/8 - 4 1/8 (2.3 - 3.1)	1 - 1 3/8 (0.75 - 1.0)	
	Cherry leaf spot	3 1/8 - 4 1/8 (2.3 - 3.1)	1 - 1 3/8 (0.75 - 1.0)	In addition to the bloom application listed above, make one application at shuck split. DO NOT apply Chlorothalonil 720 SC after shuck split and before harvest. If additional disease control is needed before harvest, use another
	Peach Nectarine			

Crop	Diseases	Chlorothalonil 720 SC Use Rate		Application Instructions
		Pt/A (lb ai/A)	100 Gallons* (lb ai/100 gallons)	
	Apricot scab  Black knot (Cherry Plum)			registered fungicide  For control of cherry leaf spot after harvest make one application to foliage within 7 days after fruit is removed In orchards with a history of high leaf spot incidence make a second application 10 – 14 days later

**Restrictions and Limitations**

- DO NOT apply more than 20.5 pt Chlorothalonil 720 SC (15.4 lb ai) per A during each growing season
- The minimum re-treatment interval is 10 days

Conifers (Pine Spruce)	Swiss needlecast	2 ¾ - 5 ½ (2.1 – 4.125)	2 ¾ - 5 ½ (2.1 – 4.125)	Single application technique In Christmas tree plantations or conifer stands make one application in the spring when new shoot growth is ½ to 2 inches in length
	Scleroderris canker (Pines)	1 ½ - 2 ¾ (1.125 – 2.1)	1 ½ - 2 ¾ (1.125 – 2.1)	
	Swiss needlecast			Make the first application in spring when new shoot growth is ½ to 2 inches in length Make additional applications at 3 to 4 week intervals until conditions no longer favor disease development For use in nursery beds apply the highest rate specified on a 3-week schedule
	Sirococcus tip blight	2 – 3 ½ (1.5 – 2.6)	2 – 3 ½ (1.5 – 2.6)	
	Rhizosphaera needlecast (Spruces)	5 ½ (4.125)	5 ½ (4.125)	
	Scirrhia brown spot (Pines)			
	Cyclaneusma and Lophodermium needlecasts (Pines)	2 ¾ to 5 ½ (2.1 - 4.125)	2 ¾ - 5 ½ (2.1 – 4.125)	Apply in early spring prior to budbreak Repeat applications at approximately 6 - 8 week intervals until spore release ceases in late fall Apply monthly during periods of frequent rainfall and where Lophodermium infections occur during dormancy (Pacific Northwest) During drought periods applications may be suspended then resumed upon next occurrence of needle wetness
	Rhabdocline needlecast (Douglas fir)	1 ½ - 2 ¾ (1.125 – 2.1)	1 ½ - 2 ¾ (1.125 – 2.1)	Apply at budbreak and repeat at 3 - 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 - 4 weeks as specified above In nursery beds use the high rate on a 3 week schedule
Botrytis	1 ½ - 2 ¾	1 ½ - 2 ¾	Begin applications in nursery beds when	

Crop	Diseases	Chlorothalonil 720 SC Use Rate		Application Instructions
		Pt/A (lb ai/A)	100 Gallons* (lb ai/100 gallons)	
	seedling blight  Phoma twig blight	(1 125 – 2 1)	(1 125 – 2 1)	seedlings are 4 inches tall and when cool most conditions favor disease development Make additional applications at 7 to 14 day intervals as long as disease favorable conditions persist
	Autoecious needle rust (Weir s cushion) (Spruce)	5 ½ (4 125)	5 ½ (4 125)	Begin applications when 10% of buds have broken and twice thereafter at 7 - 10 day intervals

**Restrictions and Limitations**

- DO NOT apply more than 22 pt Chlorothalonil 720 SC (16 5 lb ai) per A during each growing season
- The minimum re-treatment interval is 21 days
- The minimum re treatment interval in nursery beds is 7 days
- DO NOT use on forests

\*Volumetric rates to be used only with full dilute spray volume specified on this label for tree and orchard crops

**Warranty and Disclaimer Statement**

The directions for use of this product are believed to be adequate and must be followed carefully However it is impossible to eliminate all risks associated with the use of this product Such risks may arise from weather conditions soil factors off target movement unconventional farming techniques the presence of other materials the manner of use or application or other unknown factors all of which are beyond the control of Arysta LifeScience North America LLC ( Arysta ) and can cause crop injury injury to non-target crops or plants ineffectiveness of the product or other unintended consequences All such risks shall be assumed by the user or buyer Arysta warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use subject to the inherent risks described above when used in accordance with the Directions for Use under normal conditions This warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to Arysta and is subject to the inherent risks described above

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CHLOROTHALONIL 720 SC (PENDING) 05/21/12