Spectro™ 90 WDG
For Professional Use

TURF AND ORNAMENTAL FUNGICIDE
For the prevention and control of fine turf diseases and diseases of annual and perennial flowers, bedding plants, foliage plants, ground covers, plus deciduous and evergreen trees and shrubs.

ACTIVE INGREDIENTS:
Chlorothalonil (tetrachloroisophthalonitrile) .................................................. 72%
Thiophanate-methyl (dimethyl 4,4-o-phenylenebis-[3, thioallophanate]) ........... 18%

INERT INGREDIENTS .................................................................................. 10%

TOTAL ........................................................................................................... 100%

KEEP OUT OF REACH OF CHILDREN
DANGER - PELIGRO
See booklet label for additional precautionary statements and directions for use.
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.)

FIRST AID

• IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

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

• IF SWALLOWED: Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

• IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

• Note to physicians: Probable mucosal damage may contraindicate the use of gastric lavage. No specific antidote is available. All treatments should be based on observed signs and symptoms of distress in the patient. Overexposure to materials other than this product may have occurred. Persons having temporary skin irritation may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

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

For 24-Hour Emergency Assistance Call Chemtrec 1-800-424-9300.

EPA Reg. No. 1001-72
CLEARY CHEMICALS, LLC
178 RIDGE ROAD, SUITE A
DAYTON, NJ 08810-1501

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EMERGENCY PHONE NUMBERS:
800-524-1662 • 732-329-8399
24 Hour CHEMTREC • 800-424-9300

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PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Danger - Corrosive, causes irreversible eye damage. May be fatal if inhaled. Harmful if swallowed or absorbed through skin. May be a potential skin sensitizer. Do not get in eyes or on clothing or skin. Wear goggles or face- shield when handling. Wear a respirator as specified below under Personal Protection Equipment (PPE). Do not breathe dust or spray mist. Avoid prolonged contact with skin. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Note to User: This product may produce mild bronchial irritation and temporary irritation of the skin characterized by redness or rash on exposed skin areas. Affected persons should consult a physician.

PERSONAL PROTECTION EQUIPMENT (PPE)

Mixers, Loaders, Applicators and all other handlers must wear:

- Long sleeved shirt and long pants,
- Shoes plus socks,
- Protective eyewear (goggles or face shield)

In addition, chemical-resistant gloves (made out of any waterproof material, selection category A) must be worn by:

1. Mixers/loaders
2. Other handlers exposed to concentrate
3. Cleaners/repairers of equipment
4. Applicators using airblast equipment for golf course applications
5. Applicators using handheld equipment.

Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber (14 mil or thicker), nitrile rubber (14 mil or thicker), neoprene rubber (14 mil or thicker), natural rubber (14 mil or thicker), polyethylene (14 mil or thicker), polyvinyl chloride, viton (14 mil or thicker). If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

In addition, a dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with any N, R, P, or HE filter, must be worn by:

1. Mixers/loaders
2. Others exposed to the concentrate
3. Applicators and other 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 and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

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/PPE 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 from treated areas 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 drained or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow groundwater, areas with infiel d canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surface water.

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 animals, either directly or through drift. Do not graze animals on treated turf or feed clippings to livestock or poultry. 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 statements 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.

Personal Protective Equipment (PPE) required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:
• coveralls over long sleeved shirt and long pants
• chemical-resistant gloves made of any waterproof material
• chemical-resistant footwear plus socks
• chemical-resistant headgear for overhead exposures
• protective eyewear
**Special Eye Irritation Provisions:** This product is a severe eye irritant. Although the restricted entry interval (REI) expires after 12 hours, for the next 6 1/2 days entry is permitted only when the following safety measures are provided:

1) At least one container designed specifically for flushing eyes must be available in operating condition at the WPS required decontamination site intended for workers entering the treated area.
2) Workers must be informed, in a manner they can understand:
   a) That residues in the treated area may be highly irritating to their eyes.
   b) That they should take precautions, such as refraining from rubbing their eyes, to keep the residues out of their eyes.
   c) That if they do get residues in their eyes, they should immediately flush their eyes using the eye flush container that is located at the decontamination site or using other readily available clean water.
   d) How to operate the eye flush container.

**NON-AGRICULTURAL USE REQUIREMENTS**
The requirements in this box apply to uses of this product that are **NOT** within the scope of the Worker Protection Standard 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.

**GENERAL INFORMATION**
Cleary’s SPECTRO may be applied with ground equipment using sufficient volume of spray to provide thorough coverage. Add required amount of SPECTRO to a partially filled tank, agitate by mechanical or hydraulic means and then add remaining required amount of water. Continuous agitation is required to keep the material in suspension. Do not tank mix with copper-containing materials or with highly alkaline pesticides such as Bordeaux mixture of lime sulfur. Do not combine SPECTRO with other pesticides, surfactants, or fertilizers, unless your prior use has shown the combination is physically compatible, effective, and noninjurious under your conditions of use. In general, add insecticide and fertilizer products last. No claim of compatibility with other pesticides is implied. Do not combine SPECTRO with Dipel 4L, Foil, Triton Ag-98, Triton B-1956, Latron B-1956 or Latron AG-98 as phytotoxicity may result from the combination when applied to some species on this label. Do not graze animals on treated turf or feed clippings to livestock or poultry.

**GENERAL PRECAUTIONS AND RESTRICTIONS**
Do not use on home lawns and turf sites associated with apartment buildings, daycare centers, playgrounds, playfields, recreational park athletic fields, athletic fields located on or next to schools (i.e., elementary, middle and high school), campgrounds, churches, and theme parks. This product must not be applied within 150 ft (for air-blast) 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 body of water. Do not apply with fixed wing or rotary aircraft.

**Pesticide Storage and Disposal**
Do not contaminate water, food, or feed by storage or disposal.
Storage: Store in a cool, dry area in original unopened container. Store in a secured area unavailable to unauthorized persons.
well below these threshold levels. In addition, surveillance of chlorothalonil plant workers for over twenty years has not demonstrated any increase in oncogenic potential to humans.

Thiophanate methyl: No oncogenicity, no observed effect level, 160 ppm in diet for two years (rat) and 50 mg/kg/day in single dose for two years (dog) and to mice consuming levels as high as 640 ppm over a two year period. No delayed neurotoxicity or cholinesterase inhibition. No teratogenicity to rats or mice dosed throughout pregnancy with levels as high as 1,000 mg/kg/day. No effects on spermatogenesis, testosterone assimilation and no evidence of effects on fertility, fecundity or offspring from a three generation study. Ames, Mammalian Somatic, Cytogenicity, Dominant Lethal, DNA Damage/Repair all test negative.

Section 12 ECOLOGICAL INFORMATION

Toxic to fish, aquatic invertebrates, and marine estuarine organisms. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters. Do not apply when weather conditions favor drift from treated areas. Apply only to areas specified on label.

Section 13 DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Improper disposal of excess pesticide, spray mixture or rinsate is a violation of federal law. If these wastes cannot be disposed of by intended use according to label instructions, contact the appropriate agency in your state or the nearest EPA Regional Office for guidance.

Section 14 TRANSPORT INFORMATION

DOT Shipping Description: Fungicide, Agricultural, Solid N.O.I Reportable Quantity: 5.6 lbs
Hazardous Substance: N/A DOT Hazard Classification: Not DOT regulated
DOT Label Requirements: N/A UN Identification Number: N/A
IMO (water): Not regulated DOT Packing Group: N/A
ATA (air): Not regulated OSHA Hazard Classification: N/A

Section 15 REGULATORY INFORMATION

EPA SARA TITLE III DATA: Positive rating for acute hazard.
SECTION 302 Substances: N/A RCRA Waste Number: Chlorothalonil – N/A Thiophanate methyl – U409
SECTION 311/312 Hazardous Categories: N/A Immediate Health: Yes
Delayed Health: Yes Fire: No Reactive: No Sudden Pressure: No
NFPA RATINGS Flammability: 0 Reactivity: 0 Health: 3

PLEASE NOTE: Cleary Chemicals, LLC believes that the information and recommendations contained herein are accurate as of the date hereof. The information provided herein applies only to the specific product designated and may not be valid where said product is used in combination with any other material or in any process. It is the user’s responsibility to determine the suitability of the information for their purposes. No warranty of fitness for any particular purpose, warranty of merchantability, or any other warranty, expressed or implied, is made concerning the information proved herein.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticides, pesticide sprays 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: Nonrefillable Container. Do not reuse or refill container. Offer for recycling, if available. Completely empty bag into application equipment. Then dispose of empty in a sanitary landfill or by incineration or as allowed by State and local authorities by burning. If burned, stay out of smoke.

TURF APPLICATIONS

For use only by certified applicators or those under their immediate supervision. For use on fine turf applications of cool season and warm season grasses (such as Bentgrasses, Bermudagrasses, Bluegrasses, Fescues, Ryegrasses, St. Augustine grasses, and Zoysia) or their mixtures, except where prohibited below. Cleary’s SPECTRO is not phytotoxic to any of the above mentioned grasses when used in accordance with the label. SPECTRO is to be used for the prevention and control of the diseases mentioned below. It can provide both curative and protective action. For best results use spray mixture the same day it is prepared. Spray uniformly over the area to be treated with a properly calibrated power sprayer. Begin applications when conditions favor disease development and repeat applications as long as these conditions persist. Treatments should be applied using 14 - 21 day intervals as indicated. When treating golf greens, always treat aprons and approaches. Use the highest recommended rate and shortest application interval under conditions of severe disease pressure. Refer to Table 1 and Table 2 rate and interval instructions and Table 3 for proper use. Apply recommended amounts in sufficient water to obtain thorough coverage (2-4 gallons suggested per 1,000 square feet). Cleary’s SPECTRO should always be used in conjunction with good turf management practices. Apply after mowing or avoid mowing twelve hours after application. Do not mow or water after treatment until spray deposited on turfgrass is thoroughly dry (unless directed specifically by use directions).

Not for homeowner use. Not for use on turf being grown for sale or commercial use as sod. Do not use on home lawns and turf sites associated with apartment buildings, daycare centers, playgrounds, playfields, recreational park athletic fields, athletic fields located on or next to schools (i.e., elementary, middle and high school), campgrounds, churches, and theme parks.

Table 1: Maximum seasonal application rates. Do not exceed the following amounts per Acre.

<table>
<thead>
<tr>
<th>Use Site(s) Lbs Spectro 90 WDG</th>
<th>Ounces Spectro 90 WDG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Golf Course - Greens</td>
<td>10.1</td>
</tr>
<tr>
<td>Golf Course - Greens and Tees</td>
<td>72</td>
</tr>
<tr>
<td>Golf Course - Fairways - Florida</td>
<td>30.2</td>
</tr>
<tr>
<td>Golf Course - Fairways - Florida Only</td>
<td>15.1</td>
</tr>
</tbody>
</table>

Table 2: Maximum individual application rates and minimum re-treatment intervals. Do not exceed the amounts per acre to reduce the re-treatment interval indicated below.

<table>
<thead>
<tr>
<th>Use Site(s)</th>
<th>Maximum individual application rate</th>
<th>Minimum re-treatment interval (days)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Golf course - Greens and Tees</td>
<td>15.7 (5.76 oz / 1000)</td>
<td>14</td>
<td>One application only at max rate.</td>
</tr>
<tr>
<td>Golf course - Fairways - Florida Only</td>
<td>15.1 (5.56 oz / 1000)</td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

Table 3: Turf Disease Control

<table>
<thead>
<tr>
<th>Disease(s) controlled</th>
<th>Application Interval(days)</th>
<th>Application Rate (oz/1000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthracnose (fungal and basal rot) Colletotrichum graminicola (a)</td>
<td>14</td>
<td>3 - 5.76</td>
</tr>
</tbody>
</table>
Special Instructions:
(a) Irrigate/sprinkle lightly (0.1 - 0.25 inches of water) after 8-12 hours. Take care not to move material below root zone of turf in treatment area.
(b) Apply before turf has stopped all growth activity and before snow cover. If snow cover is intermittent or lacking, apply Cleary 90 WDG at a rate of 1.0 to 2.0 pounds per 100 gallons of water unless other directions are given in labeled containers and store in safe place out of doors to await proper disposal. Re-use spilled material if possible, otherwise dispose in accordance with all federal, state and local health and pollution regulations.

Section 9 PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: N/A
Melting Point: 250°C
Freezing Point: N/A
Specific Gravity: 1.38 (calculated)
Bulk Density: 37-42 lb/cu ft
Vapor Pressure (@ 25°C): 5.72 x 10-7@25°C

Section 10 STABILITY AND REACTIVITY
Stability: Stable under normal use and transportation situations.
Conditions To Avoid: N/A
Incompatibility: Highly alkaline materials, oxidizing agents, lime sulfur, bordeaux mixture, copper compounds.
Hazardous Polymerization: N/A
Hazardous Decomposition Products: Thermal decomposition generates hydrogen chloride and oxides of nitrogen, sulfur, and carbon.

Section 11 TOXICOLOGICAL INFORMATION

TOXICITY DATA:

Oral (acute): LD50>5000 mg/kg (rat)
Dermal (acute): LD50>2,000 mg/kg (rabbit)
Inhalation (acute): N/A. Particle size not respirable. Particle integrity established.
Chronic: Chlorothalonil: Repeated excessive dermal exposure may cause marked skin irritation. Studies on rats and mice have suggested that technical chlorothalonil (97%), when fed at high levels in the diet, may have oncogenic potential to these laboratory animals. However, neither chlorothalonil or its metabolites interact with DNA. In addition, numerous mutagenicity studies have been conducted which further demonstrate that these compounds are not mutagenic. Tumor formation has been related to a non-genotoxic mechanism of action for which threshold levels have been established on rats and mice. Comprehensive dietary and worker exposure studies have shown exposure levels for humans to be
Section 1 CHEMICAL PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: Spectro 90 WDG
EPA REGISTRATION NUMBER(S): 1001-72
GENERAL USE: Turf and Ornamental fungicide
CHEMICAL NAME: Tetrachloroisophthalonil and Dimethyl-4,4’-o-phenylenebis[3-thioallophanate]
SYNONYM: Chlorothalonil and Thiophanate-methyl

Section 2 COMPOSITION, INFORMATION ON INGREDIENTS
Active Ingredient (CAS#) Percent Exposure Limits
Tetrachloroisophthalonil (1897-45-6) 72.0% TLV’s and PEL’s have not been established.
Dimethyl-4,4’-o-phenylenebis-[3-thioallophanate] (23564-05-8) 18.0%
Other Ingredients 10.0%

Section 3 HAZARDS IDENTIFICATION
Corrosive, causes irreversible eye damage. May be fatal if inhaled. Harmful if swallowed or absorbed through skin.
Do not get in eyes or on clothing or skin. Wear goggles or face shield when handling. Do not breathe dust or spray mist. Avoid prolonged contact with skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Note to User: This product may produce mild bronchial irritation and temporary irritation of the skin characterized by redness or rash on exposed skin areas. Affected persons should consult a physician.

Section 4 FIRST AID MEASURES
IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. Have person sip a glass of water preferably by mouth to an unconscious person.
IF SWALLOWED: Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately and thoroughly. Call a poison control center or doctor if irritation or redness continues. Note to physicians: Probable muscosal damage may contraindicate the use of gastric lavage. No specific antidote is available. All treatments should be based on observed signs and symptoms of distress in the patient. Overexposure to materials other than this product may have occurred. Persons having temporary skin irritation may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

Section 5 FIRE FIGHTING MEASURES
Flash Point: N/A
Flammable Limits (vol % in air): N/A
Autoignition Temperature: N/A
Extinguishing Media: Carbon dioxide, foam, water, dry chemical, earth, or sand.

Table 4: Maximum seasonal application rates. Do not exceed the following amounts per acre.

<table>
<thead>
<tr>
<th>Use Site(s)</th>
<th>Lbs Spectro 90 WDG</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ornamentals</td>
<td>50.6</td>
<td>Field Grown Only</td>
</tr>
<tr>
<td>Roses</td>
<td>50.6</td>
<td>Field Grown Only</td>
</tr>
<tr>
<td>Pachysandra</td>
<td>50.6</td>
<td>Field Grown Only</td>
</tr>
<tr>
<td>Conifers</td>
<td>22.9</td>
<td></td>
</tr>
</tbody>
</table>

Table 5: Maximum individual application rates and minimum re-treatment intervals. Do not exceed the amounts per acre or reduce the re-treatment interval indicated below.

<table>
<thead>
<tr>
<th>Use Site(s)</th>
<th>Maximum individual application rate</th>
<th>Minimum re-treatment interval (days)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ornamentals</td>
<td>2.15 lbs / Acre</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Roses</td>
<td>1.53 lbs / Acre</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Pachysandra</td>
<td>4.31 lbs / Acre</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Conifers</td>
<td>5.7 lbs / Acre</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Conifers Seed Beds</td>
<td>5.7 lbs / Acre</td>
<td>7</td>
<td>Seed Beds Only</td>
</tr>
</tbody>
</table>

Table 6: Horticultural Disease Control

1. Leaf Spots/Foliar Blights
   - Alternaria leaf spot
   - Botrytis leaf spot, leaf blight
   - Bipolaris (Helminthosporium) leaf spot
   - Black spot of rose
   - Cercospora leaf spot
   - Cercosporidium leaf spot
   - Cephalosporium leaf spot
   - Colletotrichum leaf blotch, leaf spot, blights
   - Dactylaria leaf spot
   - Didymella leaf spot
   - Microsphaera spp.
   - Erysiphe spp.
   - Sphaerotheca spp.
   - Thidiosphaera spp.

2. Flower Spots/Blight
   - Botrytis flower spot, flower blight
   - Curvularia flower spot
   - Monilinia blossom blight
   - Oculinia flower blight
   - Rhizopus blossom blight
   - Sclerotinia flower blight

3. Powdery Mildews
   - Ascocytula blight
   - Bipolaris (Helminthosporium) leaf spot
   - Blumeriella spp.
   - Cercospora leaf spot
   - Cercosporidium leaf spot
   - Cylindrosporium leaf spot
   - Didymella leaf spot
   - Microsphaera spp.
   - Mycosphaerella spp.
   - Phytophthora spp.
   - Oidium spp.
   - Sphaerotheca spp.
Table 7: Ornamentals Suggested For Treatment

Note: The following listing of plants reflects the cumulative inputs from both historical field use and product testing programs. However, it is impossible to test this product on all species and cultivars. This list is provided as a general guide. A preliminary trial is suggested on a small scale before a full treatment is applied to any plant type not shown on this label but found in a similar use site with a listed disease problem. Wait 5-7 days after treatment to evaluate trial results for possible phytotoxic responses. This product is not recommended for the following plants: Swedish Ivy (Plectranthus australis), Boston Fern (Nephrolepis exaltata), and Easter Cactus (Hatiora gaertneri).

Note: Numbers following plant names refer to disease categories.

Trees And Shrubs

- Andromeda (Pieris) - 1
- Ash (Fraxinus) - 1, 3, 4, 6
- Aspen (Populus) - 1, 3, 6
- Azalea (Rhododendron) - 1, 2, 3, 6
- Buckeye, Horsechestnut (Aesculus) - 1, 3, 4, 6
- Cherry-Laurel (Prunus) - 1, 2, 3, 5, 6
- Conifers - see Special Instructions below
- Crabapple (Malus) - 1, 2, 3, 4, 5, 6
- Cherry, Sand (Prunus) - 1, 2, 3, 5, 6
- Dogwood (Cornus) - 1, 2, 3, 4, 5, 6
- Euonymus - 1, 3, 6
- Fotherm (Pyracantha) - 1, 3, 5, 6

Ornamental Plants, Bulbs, and Ground Covers

- Arabian Violet (Exacum) - 1, 2, 6
- Aster - 1, 2, 3, 4, 6
- Begonia - 1, 2, 3, 6
- Bleeding heart (Dicentra) - 1, 6
- Camellia - 1, 2, 6
- Carnation (Dianthus) - 1, 2, 3, 4, 6
- Chrysanthemum (Dendranthemum) - 1, 2, 3, 4, 6
- Crocus - 6
- Croton (Codiaeum) - 1, 6
- Daffodil (Narcissus) - 1, 2, 6

4. Rusts

- Gymnosporangium spp.
- Puccinia spp.
- Uromyces spp.

5. Scabs

- Venturia spp.

6. Stem Rots/ Crown Rots

- Bipolaris (Helminthosporium) spp.
- Botrytis spp.
- Cylindrocladium stem canker
- Fusarium spp.
- Gibberella spp.
- Myrothecium spp.
- Ramularia spp.
- Rhizoctonia spp.
- Sclerotinia spp.

Foliage Plants

- Aechmea - 1, 6
- Aglaonema - 1, 6
- Aluminum Plant (Pilea) - 1, 6
- Artemisia - 1, 3, 4, 6
- Birdnest Fern (Asplenium) - 1, 6
- Bougainvillea - 1, 6
- Caladium - 1, 6
- Christmas Cactus (Schlumbergera) - 1, 6
- Dumbcane (Dracaena) - 1, 6
- Falsa (Dracaena) - 1, 6
- False Aralia (Diospyros) - 1, 6
- Fatsia - 1, 6
5. Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute suspension per unit time. An injection ratio of 1:100 is recommended for greenhouse systems.

Instructions For Sprinkler - (Overhead) Irrigation
Observe the requirements in the System Requirements section above. Do not apply when wind speed favors drift beyond the area intended for treatment. Apply SPECTRO only through systems containing anti-siphon and check valves designed to prevent water source contamination or overflow of the mix tank and containing interlocking controls between the metering device and the water pump to ensure simultaneous shut-off. Maintain a gentle continuous agitation in mix tank during mixing and application to assure a uniform suspension. Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute suspension per unit time. An injection ratio of 1:100 is recommended for greenhouse systems.

APPLICATION INSTRUCTIONS
Hand Held Irrigation
1. Remove scale, pesticide residue, and other foreign matter from the chemical tank and entire injector system. Flush with clean water.
2. Determine the treatment rate as indicated in the directions for use for crop and pathogen and measure the intended areas of application.
3. Prepare a suspension of the product in the mix tank or stock bucket. Fill the tank with 1/2 or 3/4 of the desired amount of water. Start agitation and add the required amount of product to the solution along with the remaining volume of water.
4. Maintain a gentle agitation in the mix tank during application to assure a uniform suspension.
5. Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute suspension per unit time. An injection ratio of 1:100 is recommended for greenhouse systems.

Foliage Plants
Ficus - 1, 6
Fittion - 1, 6
Florida Ruffle (Villaria) - 1, 6
Hollyfern (Polystichum) - 1, 6
Hibiscus - 1, 6
Jade plant (Crassula) - 1, 3, 6
Leaflet fern (Acrostichum) - 1
Lipstick plant (Aeschynanthus) - 1, 6
Ming aralia (Polyscias) - 1, 6
Oyster plant (Tradescantia) - 1, 4, 6
Pachysandra - 1, 6
Palms - 1, 6
Peacock plant (Calathea, Kaempferia) - 1, 2, 6
Peperomia - 1, 6
Phloretum - 1, 6
Piggyback Plant (Tolmiea) - 1, 3, 6
Pothos (Epipremnum) - 1, 6
Prayer plant (Maranta) - 1, 4, 6
Purple Passion Vine (Gynura) - 1, 6
Staghorn Fern (Lygodium) - 1
Symonion - 1, 4, 6
Ti (Cordyline) - 1, 6
Venus fly trap (Dionaea) - 1, 6
Yucca - 1, 3, 4, 6
Zebra plant (Aphelandra) - 1, 6

Note: Do not apply SPECTRO to either green or variegated Pittosporum or to Schefflera more than once, as multiple applications have been demonstrated to cause phytotoxic responses.

Table 8: Special Instructions For Conifers Diseases Controlled
Diploodia (Sphaeropsis) Tip blight (b)
Swiss needlecast (a)
Sclerotodris canker (pines)(a)
Siroccoccus tip blight(a)
Rhizosphaera needlecast (spruces)(a)
Scirrhia brown spot (pines)(a)
Cyclaneusma needlecasts(b)
Lophodermium needlecasts(b)
Rhabdocline needlecast (b)
Botryis seedling blight (c)
Phoma twig blight (c)
Phomopsis twig blight (b)
Kabatina twig blight (b)
(a) Make first application in spring when new shoot growth is 1/2 to 2 inches in length. Make additional applications at 3-4 week intervals until conditions no longer favor disease development.

Trees And Shrubs
Hawthorn (Crataegus) - 1, 3, 4, 5, 6
Holly (Ilex) - 1, 2, 3, 6
Lilac (Syringa) - 1, 2, 3, 5, 6
Magnolia - 1, 3, 5, 6
Maple (Acer) - 1, 3, 5, 6
Mountain Laurel (Rhododendron) - 1, 2, 3, 6
Norfolk Island Pine - see Special Instructions below
Oak (Quercus) - 1, 3, 6
Oregon grape (Mahonia) - 1, 2, 3, 4, 6
Ornamental Almond (Prunus) - 1, 2, 3, 5, 6
Ornamental Cherry (Prunus) - 1, 2, 3, 5, 6
Ornamental Peach (Prunus) - 1, 2, 3, 5, 6
Ornamental Plum (Prunus) - 1, 2, 3, 5, 6
Ornamental Quicks (Choenomeles) - 1, 2, 3
Pothos - 1, 3, 4, 6
Poplar (Populus) - 1, 3, 6
Privet (Ligustrum) - 1, 3, 6
Rhododendron - 1, 2, 3, 6
Sugawara - 1, 6
Spirea (Spiraea) - 1, 3
Sycamore, Planetree (Platanus) - 1, 3, 6
Viburnum - 1, 2, 3, 4, 6
Vigetum (Vigna) - 1, 3, 6, 5

Ornamental Plants, Bulbs, and Ground Covers
Daisy (Chrysanthemum) - 1, 2, 3, 4, 6
Geranium (Pelargonium) - 1, 2, 3, 4, 6
Gerbera Daisy (Gerbera) - 1, 2, 3, 6
Glicidium - 1, 2, 6
Flame violet (Epicoe) - 1, 6
Gypsophila - 1, 2, 6
Hollyhock (Alcea) - 1, 3, 4, 6
Hydrangea (Hoya) - 1, 2, 3, 5, 6
Impatiens - 1, 2, 4, 6
Iris - 1, 2, 4, 6
Lily (Lilium) - 1, 2, 4, 6
Marigold (Tagetes) - 1, 2, 4, 6
Narcissus - 1, 2, 6
Natal plum (Cassia) - 1, 3, 6
Pachysandra - 1, 6
Parsley (Volv) - 1, 2, 3, 4, 6
Petunia - 1, 2, 3, 4, 6
Phlox - 1, 2, 3, 4, 6
Poinsettia (Euphorbia) - 1, 2, 3, 4, 6
Rosa (Rosa) - 1, 2, 3, 4, 6
Sarcoscvia - 1, 6
Stachy (Limonium) - 1, 2, 4, 6
Tulip (Tulipa) - 1, 2, 6
Zinnia - 1, 2, 3, 5

Hand Held Irrigation
1. Remove scale, pesticide residue, and other foreign matter from the chemical tank and entire injector system. Flush with clean water.
2. Determine the treatment rate as indicated in the directions for use for crop and pathogen and measure the intended areas of application.
3. Prepare a suspension of the product in the mix tank or stock bucket. Fill the tank with 1/2 or 3/4 of the desired amount of water. Start agitation and add the required amount of product to the solution along with the remaining volume of water.
4. Maintain a gentle agitation in the mix tank during application to assure a uniform suspension.
5. Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute suspension per unit time. An injection ratio of 1:100 is recommended for greenhouse systems.

APPLICATION INSTRUCTIONS
Hand Held Irrigation
1. Remove scale, pesticide residue, and other foreign matter from the chemical tank and entire injector system. Flush with clean water.
2. Determine the treatment rate as indicated in the directions for use for crop and pathogen and measure the intended areas of application.
3. Prepare a suspension of the product in the mix tank or stock bucket. Fill the tank with 1/2 or 3/4 of the desired amount of water. Start agitation and add the required amount of product to the solution along with the remaining volume of water.
4. Maintain a gentle agitation in the mix tank during application to assure a uniform suspension.
5. Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute suspension per unit time. An injection ratio of 1:100 is recommended for greenhouse systems.

Instructions For Sprinkler - (Overhead) Irrigation
Observe the requirements in the System Requirements section above. Do not apply when wind speed favors drift beyond the area intended for treatment. Apply SPECTRO only through systems containing anti-siphon and check valves designed to prevent water source contamination or overflow of the mix tank and containing interlocking controls between the metering device and the water pump to ensure simultaneous shut-off. Maintain a gentle continuous agitation in mix tank during mixing and application to assure a uniform suspension. Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute suspension per unit time. Application of more than recommended quantities of irrigation water per acre may result in decreased product performance. Do not apply when wind speed favors drift. When system connections or fittings leak, when nozzles do not provide uniform distribution or when lines containing the product cannot be flushed and must be dismantled and drained in a center pivot system, block the nozzle set nearest the well pivot injection unit to prevent spray being applied to this area. Where sprinkler distribution patterns do not overlap sufficiently, unacceptable disease control may result. Allow sufficient time for pesticides to be flushed through all lines and all nozzles before turning off irrigation water. SPECTRO may be applied in conjunction with chemically neutral liquid fertilizers. Application in conjunction with highly alkaline fertilizers, such as aqueous ammonia, may cause a degradation of the pesticide, resulting in reduced performance and should be avoided. Check local restrictions and requirements regarding sprinkler irrigation applications, as they may vary from state to state. Remove scale, pesticide residues, and other foreign matter from the chemical tank and entire injector system. Flush with clean water. Prepare a suspension of SPECTRO in a mix tank. Fill the tank with 1/2 to 3/4 of the desired amount of water. Start mechanical or hydraulic agitation. Slowly add the required amount of SPECTRO and then the remaining volume of water. Set sprinkler system to deliver 0.1 to 1.25 inches of water per acre. Volumes of water higher than this may reduce efficacy. Start sprinkler and then uniformly inject the suspension of SPECTRO into the irrigation water line so as to deliver the desired rate per acre. The suspension of SPECTRO should be injected with a positive displacement pump into the main line ahead of a right angle turn to ensure adequate mixing.

Note: Do not apply SPECTRO to either green or variegated Pittosporum or to Schefflera more than once, as multiple applications have been demonstrated to cause phytotoxic responses.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone (RPZ) posted in the corners of the treated areas and in any other locations affording maximum visibility to sensitive areas. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

5. a person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise. 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 such as golf courses or retail greenhouses. 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 area. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other locations 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 which 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.

Specific Requirements for Chemigation Systems Connected to Public Water Systems

1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone (RPZ), backflow preventer or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank at least twice the inside diameter of the fill pipe.

3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back towards the injection pump.
4. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being drawn from the supply tank when the irrigation system is either automatically or manually shut down.
5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump or equivalent, effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

Specific Requirements for Sprinkler and Drip/Trickle Chemigation

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

Specific Requirements for Flood (basin) Chemigation

1. Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from back flow if water flow stops.
2. Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:
   a. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow.
   b. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
   c. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
Spectro 90 WDG
For Professional Use

TURF AND ORNAMENTAL FUNGICIDE
For the prevention and control of fine turf diseases and diseases of annual and perennial flowers, bedding plants, foliage plants, ground covers, plus deciduous and evergreen trees and shrubs.

ACTIVE INGREDIENTS:
Chlorothalonil (tetrachloroisophthalonitrile) .......................... 72%
Thiophanate-methyl (dimethyl 4,4-0-phenylenebis-[3, thiaoalphanate]) .......................... 18%

INERT INGREDIENTS .............................................. 10%
TOTAL ................................................................. 100%

KEEP OUT OF REACH OF CHILDREN
DANGER - PELIGRO
See booklet label for additional precautionary statements and directions for use.
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.)

FIRST AID

• IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

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

• IF SWALLOWED: Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

• IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

• Note to physicians: Probable mucosal damage may contraindicate the use of gastric lavage. No specific antidote is available. All treatments should be based on observed signs and symptoms of distress in the patient. Overexposure to materials other than this product may have occurred. Persons having temporary skin irritation may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
For 24-Hour Emergency Assistance Call Chemtrec 1-800-424-9300.

EPA Reg. No. 1001-72

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