

228-390

03/17/2003

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U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Registration Division (7505C)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460-0001

EPA Reg. Number:  
228-390

Date of Issuance:  
**MAR 17 2003**

Term of Issuance:  
Conditional

Name of Pesticide Product:  
Riverdale CTM  
Fungicide

NOTICE OF PESTICIDE:

- Registration
- Reregistration  
(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Riverdale Chemical Company  
1333 Burr Ridge Parkway  
Burr Ridge, IL 60527-0866      Attn: Russell Sawyer

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

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA Section 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration of your product under FIFRA Section 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA Section 4.
2. Make the following label changes before you release the product for shipment:
  - a. Revise the EPA Registration Number to read, "EPA Reg. No. 228-390."
  - b. The last sentence on page 1 should read: "Have the product container or label with you when calling a poison control center or doctor, or going for treatment."
  - c. At the bottom of page 2 under the heading Engineering Controls, the first sentence should read as follows: "When handlers use the closed systems, . . . ."
  - d. The maximum single application rate for golf course greens and tees and golf course fairways exceeds the application rates for thiophanate methyl. The rates must be revised to 15.1 lbs. of product which is 2.72 lbs. active ingredient.
  - e. In Table 1, Golf Course Fairways - Florida Only, must be 15.1 lbs. of product and 5.56 oz/100 sq. ft. (As per the Agency's letter dated Nov 15, 2002)

Signature of Approving Official:

Dennis M. McNeilly  
Acting, Product Manager (22)  
Fungicide Branch

Date:

**MAR 17 2003**

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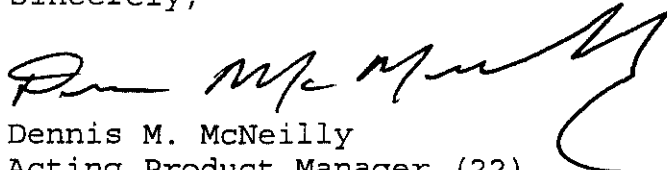
EPA Reg. No. 228-390

Submit one copy of the revised final printed label before releasing the product for shipment. Additional, label changes made be required during product specific reregistration.

If the conditions enumerated above are not complied with, the registration will be subject to cancellation in accordance with FIFRA Section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records. Please contact me on (703) 308-6742 if you have questions regarding this registration.

Sincerely,

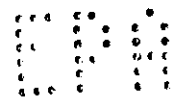


Dennis M. McNeilly  
Acting, Product Manager (22)  
Registration Division (7505C)

Enclosure 1) Stamped Label

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RIVERDALE



CTM™ Fungicide

FOR TURF AND ORNAMENTAL USE

Prevents and Controls fine turf diseases and diseases of annual and perennial flowers, bedding plants, foliage plants, ground covers, plus deciduous and evergreen trees and shrubs.

ACTIVE INGREDIENT:

Chlorothalonil (tetrachloroisophthalonitrile)	72.0%
Thiophanate methyl (dimethyl 4,4'-O-phenylenebis-[3-thiollaophanate])	18.0%

INERT INGREDIENTS:	10.0%
TOTAL	100.0%

CTM is a Trademark of Riverdale Chemical Company  
Riverdale is a Registered Trademark of Riverdale Chemical Company

ACCEPTED  
with COMMENTS  
In EPA Letter Dated

**KEEP OUT OF REACH OF CHILDREN**

**DANGER - PELIGRO**

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 AND FIRST AID STATEMENTS**

**MAR 17 2003**

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 228-380

**FIRST AID**

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

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

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

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

**NOTE TO PHYSICIAN:** 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 or doctor, or going for treatment.

EPA NO. 228-GON

NET WEIGHT

EPA EST. NO. 228-IL-1

MANUFACTURED BY

RIVERDALE CHEMICAL COMPANY

BURR RIDGE, ILLINOIS 60527-0866

**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**  
**DANGER - PELIGRO**

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 breath 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. 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.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**NON-WPS USES:** Applicators and others handlers who handle this pesticide for any use not covered by the Worker Protection Standard (40 CFR Part 170), must wear: Long sleeved shirt, long pants, shoes, socks, chemical-resistant gloves made of any water proof material and protective eye wear.

**WPS Uses:** Mixers, Loaders, Applicators and all other handlers who handle this pesticide for any use covered by the Worker Protection Standard (40 CFR Part 170), must wear: Long sleeved shirt, long pants, shoes, socks, and protective eye wear.

In addition, chemical-resistant gloves made of any waterproof material 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, and (5) Applicators using handheld equipment.

Some materials that are chemical-resistant to this product are listed below: barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils, neoprene rubber  $\geq$  14 mils, natural rubber  $\geq$  14 mils, polyethylene, polyvinyl chloride (PVC)  $\geq$  14 mils, or Viton  $\geq$  14 mils. 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 applicators and other handlers in enclosed areas, such as a greenhouse.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

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

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**USER SAFETY RECOMMENDATIONS**

**USERS SHOULD:** Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. 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.

Chlorothalonil 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 contaminations.

Chlorothalonil 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 readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow groundwater, 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. **READ ENTIRE LABEL BEFORE USING THIS PRODUCT. USE STRICTLY IN ACCORDANCE WITH LABEL PRECAUTIONARY STATEMENTS AND DIRECTIONS.**

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

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, 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 protection equipment (PPE), and restricted entry interval (REI). The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the 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, shoes with socks, and protective eye wear, and chemical resistant gloves.

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 eyeflush container that is located at the decontamination site or using other readily available clean water. (d) 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 WPS 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 spray has dried.

#### GENERAL INFORMATION AND USE PRECAUTIONS

CTM™ Fungicide may be applied with ground equipment using sufficient volume of spray to provide thorough coverage. Add required amount of CTM 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 CTM with other pesticides, surfactants, or fertilizers, unless your prior use has shown the combination is physically compatible, effective, and non injurious 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 CTM with Dipel 4L, Foil, Triton Ag-98, Triton B-1956, Latron B-195 or Latron AG-98 as phytotoxicity may result from the combination when applied to some species on this label.

This product must not be applied within 150 ft. (for air-blast) or 25 ft. (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 aerially.

Do not graze animals on treated turf or feed clippings to livestock or poultry.

#### POSTING INSTRUCTIONS

Posting of areas to be chemigated is required when: 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 when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to the following requirements. Treatment 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 signal at least 8 inches in diameter containing the word "STOP". Below the symbol shall be the words "PESTICIDES IN IRRIGATION WATER".

#### TURF APPLICATIONS

For use on fine ornamental turf applications such as commercial and public lawns, athletic fields, cemeteries, parks and recreation, and golf courses (only greens, tees, and fairways) of cool season and warm season grasses (such as Bentgrasses, Bermudagrasses, Bluegrasses, Fescues, Ryegrasses, St. Augustine grasses, and Zoysia) or their mixtures. CTM™ Fungicide is not phytotoxic to any of the above mentioned grasses when used in accordance with the label. CTM 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 to 21 day intervals. 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 to 4 gallons suggested per 1,000 square feet). CTM™ Fungicide 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). Use of this product on home lawns is prohibited. Not for use on turf being grown for sale or commercial use as sod.

**TABLE 1**

**Maximum seasonal application rates. Do not exceed the following amounts per Acre.**

Use Site(s)	Lbs CTM	Ounces CTM
Golf Course - Greens	101.0	37.25 oz/1000 sq. ft.
Golf Course - Tees	72.0	26.50 oz/1000 sq. ft.
Golf Course - Fairways - Florida only	30.2	12.00 oz/1000 sq. ft.
Golf Course - Fairways, except Florida	15.1	5.56 oz/1000 sq. ft.
Turf - Public areas (Commercial, recreational, athletics, etc.)	36.0	13.25 oz/1000 sq. ft.

**TABLE 2**

**Maximum individual application rates and minimum re-treatment intervals. Do not exceed the amounts per Acre or reduce the re-treatment interval indicated below.**

Use site	Maximum individual application rate Lbs CTM	Minimum re-treatment interval (days)	Remarks
Golf course - Greens and Tees	15.7 (5.76 oz/1000)	14	
Golf course - Fairways - Florida only	15.1 (5.56 oz/1000)	14	One application only at maximum rate
Golf course - Fairways - except Florida	15.7 (5.76 oz/1000)	14	One application only at maximum rate
Turf - Public areas (Commercial, recreational, athletics, etc.)	15.1 (5.56 oz/1000)	14	Four applications maximum

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TABLE 3

**Turf Disease Control**

Disease(s) controlled	Application Interval (days)	Application Rate (oz/1000)
Anthraxnose (foliar and basal rot) Colletotrichum graminicola (a)	14	3.72 to 5.76
Brown patch Rhizoctonia solani, R. zeae, R. Cerealis	14 to 21	3 to 5.76
Copper spot Gloeocercospora sorghi	14	3 to 5.76
Dollar spot Sclerotinia homeocarpa, Lanzia or Moellerodiscus spp.	14 to 21	3.72 to 5.76
Gray leaf spot Pyricularia grisea, P. oryzae	14	3.72 to 5.76
Leaf spot, melt-out Helminthosporium spp., Dreschlera spp., Bipolaris spp., Curvularia spp.	14	3.72 to 5.76
Red thread Laetisaria fuciformis	14	3.72 to 5.76
Snow mold, gray Typhula spp. (B)	14	3.72 to 5.76
Snow mold, pink Fusarium nivale, Microdochium nivale (b)	14	3.72 to 5.76
Bluegrass stem rust	14	3.72 to 5.76
Powdery mildew	14	3.72 to 5.76
Downy mildew	14	3.72 to 5.76
Fusarium blight	14	3.72 to 5.76
Fusarium patch	14	3.72 to 5.76
Dichondra leaf spot	14	3.72 to 5.76

**SPECIAL INSTRUCTIONS:**

(a) Irrigate/syringe lightly (0.1 to 0.25 inches of water) after 8 to 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, additional applications may be made at monthly intervals in areas of suspected or historic gray snow mold activity. In areas of predominantly pink snow mold, application should be made during the reproductive (fruiting) period of the pathogen for best results. Consult with your local extension service for this information.

**ALGAE CONTROL:**

For the prevention of algal scum of turfgrasses caused by cyanobacteria of the genus Lyngbia, apply CTM at a rate of 2 to 3.72 ounces per 1000 square feet on a 7 day schedule. When algae scum is well established, every attempt should be made to dry out the afflicted area. Once dry, spiking or verticutting should be done to enhance turfgrass recovery in conjunction with CTM applications at the rate of 3.72 to 5.76 ounces per 1000 square feet on a 7 to 14 day schedule. Several applications of CTM at the high rate may be necessary for turfgrass recovery. Refer to Table 1 and Table 2 rate and interval instructions for proper use. Only a preventative spray program with CTM will prevent a recurrence of the algae when environmental conditions are favorable for algal growth.



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## HORTICULTURAL APPLICATIONS

## Nursery, Greenhouse, Landscape, and Interiorscape

Annual and perennial flowers, bedding plants, foliage plants, ground covers, plus deciduous and evergreen trees and shrubs.

Apply CTM™ Fungicide at a rate of 1.0 to 2.0 pounds per 100 gallons of water unless other directions are given in the information below. 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, apply as a full coverage spray to run-off when conditions are favorable for disease development. Refer to Table 4 and Table 5 rate and interval instructions for proper use. Application should be made to plants when both foliage and flowers are dry, or nearly dry. CTM can provide both curative and protective action. Use the highest recommended rate and shortest application interval under conditions for severe disease pressure. Do not use mistblower or high pressure (greater than 400 psi) spray equipment when making applications in greenhouses. Do not use this product on plants bearing fruits and other parts/structures, which may be eaten.

TABLE 4

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

Use Site(s)	Lbs CTM	Remarks
Ornamentals	50.6	Field Grown Only
Roses	50.6	Field Grown Only
Pachysandra	50.6	Field Grown Only
Conifers	22.9	

TABLE 5

Maximum individual application rates and minimum re-treatment intervals.  
Do not exceed the amount per Acre or reduce the re-treatment interval indicated below.

Use site	Maximum individual application rate Lbs CTM	Minimum re-treatment interval (days)	Remarks
Ornamentals	2.15 lbs/Acre	7	
Roses	1.53 lbs/Acre	7	
Pachysandra	4.31 lbs/Acre	7	
Conifers	5.7 lbs/Acre	21	
Conifers Seed Beds	5.7 lbs/Acre	7	Seed Beds Only

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TABLE 6

**Horticultural Disease Control**

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| <p>1. Leaf Spots/Foliar Blights</p> <ul style="list-style-type: none"> <li>Actinopelte leaf spot</li> <li>Alternaria leaf spot, leaf blight</li> <li>Anthraco nose</li> <li>Ascochyta blight</li> <li>Bipolaris (Helminthosporium) leaf spot</li> <li>Black spot of rose</li> <li>Blumeriella spp.</li> <li>Botrytis leaf spot, leaf blight</li> <li>Cephalosporium leaf spot</li> <li>Cercospora leaf spot</li> <li>Cercosporidium leaf spot</li> <li>Coccomyces spp.</li> <li>Colletotrichum leaf blotch, leaf spot, blights</li> <li>Corynespora leaf spot</li> <li>Coryneum blight, shothole</li> <li>Curvularia leaf spot, tan leaf spot</li> <li>Cylindrosporium leaf spot</li> <li>Dactylaria leaf spot</li> <li>Didymellina leaf spot</li> <li>Diplodia spp.</li> <li>Drechslera leaf spot, ink spot</li> <li>Exobasidium leaf blister</li> <li>Entomosporium (Fabraea) leaf spot</li> <li>Fusarium leaf spot</li> <li>Gloeosporium black leaf spot</li> <li>Marssonina leaf spot</li> <li>Monilinia blossom blight, twig blight</li> <li>Mycosphaerella ray blight</li> <li>Myrothecium leaf spot, brown rot</li> <li>Nematostoma leaf blight</li> <li>PHoma spp.</li> <li>Phylloticta leaf spot</li> <li>Physalospora spp.</li> <li>Phytophthora aerial blight</li> <li>Ramularia leaf spot</li> </ul> | <ul style="list-style-type: none"> <li>Rhizoctonia web blight</li> <li>Schizothyrium spp.</li> <li>Septoria leaf spot</li> <li>Sphaceloma spp.</li> <li>Sphaeropsis leaf spot</li> <li>Stagonospora leaf scorch</li> <li>Taphrina leaf blister</li> <li>Volutella leaf blight</li> </ul> <p>2. Flower Spots/Blights</p> <ul style="list-style-type: none"> <li>Botrytis flower spot, flower blight</li> <li>Curvularia flower spot</li> <li>Monilinia blossom blight</li> <li>Ovulinia flower blight</li> <li>Rhizopus blossom blight</li> <li>Sclerotinia flower blight</li> </ul> <p>3. Powdery Mildews</p> <ul style="list-style-type: none"> <li>Erysiphe spp.</li> <li>Microsphaera spp.</li> <li>Phyllactinia spp.</li> <li>Podosphaera spp.</li> <li>Oidium spp.</li> <li>Sphaerotheca spp.</li> </ul> <p>4. Rusts</p> <ul style="list-style-type: none"> <li>Gymnosporangium spp.</li> <li>Puccinia spp.</li> <li>Uromyces spp.</li> </ul> <p>5. Scabs</p> <ul style="list-style-type: none"> <li>Venturia spp.</li> </ul> <p>6. Stem Rots/Crown Rots</p> <ul style="list-style-type: none"> <li>Bipolaris (Helmint spp.)</li> <li>Gliocladium spp.</li> <li>Myrothecium spp.</li> <li>Ramularia spp.</li> <li>Rhizoctonia spp.</li> <li>Sclerotinia spp. (helminthosporium) spp.</li> <li>Botrytis spp.</li> <li>Cylindrocladium stem canker</li> <li>Fusarium</li> </ul> |
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TABLE 7

**Ornamentals Suggested For Treatment**

**Note:** The following listing of plants reflect 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 to 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 exhalta*), and Easter Cactus (*Hatiora gaertneri*).

**Note:** Numbers following plant names refer to disease categories.

**TREES AND SHRUBS**

Andromeda (Pieris)-1	Oak (Quercus)-1,3,6
Ash (Fraxinus)-1,3,4,6	Oregon-grape (Mahonia)-1,2,3,4,6
Aspen (Populus)-1,3,6	Ornamental Almond (Prunus)-1,2,3,5,6
Azalea (Rhododendron)-1,2,3,6	Ornamental Cherry (Prunus)-1,2,3,5,6
Buckeye, Horsechestnut (Aesculus)-1,3,4,6	Ornamental Peach (Prunus)-1,2,3,5,6
Cherry-Laurel (Prunus)-1,2,3,5,6	Ornamental Plum (Prunus)-1,2,3,5,6
Conifers-see Special Instructions below	Ornamental Quince (Chaenomeles)-1,2,3
Crabapple (Malus)-1,2,3,4,5,6	Photinia-1,3,4,6
Cherry, Sand (Prunus)-1,2,3,5,6	Poplar (Populus)-1,3,6
Dogwood (Cornus)-1,2,3,4,5,6	Privet (Ligustrum)-1,3,6
Eucalyptus-1,3,6	Rhododendron-1,2,3,6
Euonymus-1,3,6	Sequoia-1,6
Firethorn (Pyracantha)-1,3,5,6	Spiraea (Spiraea)-1,3
Hawthorn (Crataegus)-1,3,4,5,6	Sycamore, Planetree (Plantanus)- 1,3,6
Holly (Ilex)- 1.2.3.6	Viburnum-1,2,3,4,6
Lilac (Syringa)-1,2,3,5,6	Walnut (Juglans)-1,3,4,6
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	

**ORNAMENTAL PLANTS, BULBS, AND GROUND COVERS**

Arabian Violet (Exacum)-1,2,6	Hydrangea (foliage)-1,2,3,5,6
Aster-1,2,3,4,6	Impatiens-1,2,4,6
Begonia-1,2,3,6	Iris-1,2,4,6
Bleeding heart (Dicentra)-1,6	Lily(Lilium)-1,2,4,6
Camellia-1,2,6	Marigold (Tagetes)-1,2,4,6
Carnation (Dianthus)-1,2,3,4,6	Narcissus-1,2,6
Chrysanthemum (Dendranthemum)-01,2,3,4,6	Natal plum (Carissa)-1,3,6
Crocus-6	Pachysandra-1,6
Croton (Codiaeum)-1,6	Pansy (Viola)-1,2,3,4,6
Daffodil (Narcissus)-1,2,6	Petunia-1,2,3,4,6
Daisy (Chrysanthemum)-1,2,3,4,6	Phlox-1,2,3,4,6
Geranium (Pelargonium)-1,2,3,4,6	Poinsettia (Euphorbia)-1,2,3,4,6
Gerbera Daisy (Gerbera)-1,2,3,6	Rose (Rosa)-1,2,3,4,6
Gladiolus-1,2,6	Sansevieria-1,6
Flame violet (Episcia)-1,6	Statice (Limonium)-1,2,4,6
Gypsophila-1,2,6	Tulip(Tulipa)-1,2,6
Hollyhock (Alcea)-1,3,4,6	Zinnia-1,2,3,5

**TREES AND SHRUBS**

Aechmea-1,6	Lipstick plant (Aeschynanthus)-1,6
Aglaonema-1,6	Ming aralia (Polyscias)-1,6
Aluminum Plant (Pilea)-1,6	Oyster plant (Tradescantia)-1,4,6
Artemisia-1,3,4,6	Pachysandra-1,6
Birdnest Fern (Asplenium)-1,6	Palms-1,6
Bougainvillea-1,6	Peacock plant (Calathea, Kaempferia)-1,2,6
Caladium-1,6	Peperomia-1,6
Christmas Cactus (Schlumbergera)-1,6	Philodendron-1,6
Dumbcane (Diffenbachia)-1	Piggyback Plant (Tolmeia)-1,3,6
Dracaena-1,6	Pothos (Epipremnum)-1,6
False Aralia (Dizygotheca)-1,6	Prayer plant (Maranta)-1,4,6
Fatsia-1,6	Purple Passion Vine (Gynura)-1,6
Ficus-1,6	Staghorn Fern (Lycopodium)-1
Fittonia-1,6	Stnagonium-1,4,6
Florida Ruffle (Vittaria)-1,6	Ti (Cordyline)-1,6
Hollyfern (Polystichum)-1,6	Venus's Flytrap (Dionaea)-1,6
Hoya-1,6	Yucca-1,3,4,6
Jade plant (Crassula)-1,3,6	Zebra plant (Aphelandra)-1,6
Leatherleaf Fern (Acrostichum)-1	

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

**TABLE 8**

**Special Instructions for Conifers**  
**Diseases Controlled**

Diplodia (Sphaeropsis) Tip blight (b)	Cyclaneusma needlecasts (b)
Swiss needlecast (a)	Lophoderium needlecasts (b)
Scleroderris canker (pines) (a)	Rhabdocline needlecast (b)
Sirococcus tip blight (a)	Boyrytis seedling blight (c)
Rhizosphaera needlecast (spruces) (a)	Phoma twig blight (c)
Scirrhia brown spot (pines) (a)	Phomopsis Twig Blight (b)
	Kabatina Twig Blight (b)

(a) Make 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.

(b) Apply at budbreak and repeat at 2 to 3 week intervals until needles are fully elongated and conditions no longer favor disease development.

(c) Begin applications in nursery beds when seedlings are 4 inches tall and when cool, moist conditions favor disease development. Make additional applications at 7 to 14 day intervals as long as disease favorable conditions persist.

**CHEMIGATION****Application through Irrigation Systems****GENERIC REQUIREMENTS**

1. Apply this product only through a sprinkler including center pivot, lateral move,

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end tow, side wheel roll, traveler, solid set, hand move, hand held or similar; flood (basin); or drip (trickle) irrigation system. Do not apply this product through any other type of irrigation system.

2. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
3. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
4. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
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.

#### **SPECIFIC REQUIREMENTS**

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, reduce 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 of 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.

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**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 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 ration 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 CTM 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 insure 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.

CTM 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 CTM 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 CTM 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 CTM into the irrigation water line so as to deliver the desired rate per acre. The suspension

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of CTM should be injected with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed  $\frac{3}{4}$  the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

#### Aerial Drift Reduction Advisory Information

[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 conditions (see Wind, Temperature).

#### **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 potential.

#### **BOOM LENGTH**

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

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**WIND**

Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. 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 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.

**STORAGE AND DISPOSAL**

**PESTICIDE STORAGE:** Store in a cool, dry place in original container. Do not contaminate water, food, or feed by storage or disposal.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, 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 Environmental Protection Agency Regional Office for guidance.

**CONTAINER DISPOSAL:** Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill, or incinerator, or if allowed by State and Local authorities, by burning. If burned stay out of smoke.

**WARRANTY**

Riverdale Chemical Company warrants that this fungicide conforms to the chemical description on its label. When used in accordance with label directions under normal condition, this fungicide is reasonably fit for its intended purposes. Since timing, method of application, weather, plant and soil conditions, mixtures with other chemicals, and factors affecting the use of this product are beyond our control, no warranty is given concerning the use of this product contrary to label directions or under conditions which are abnormal or not reasonably foreseeable. The user assumes all risks of any such use.