19713-509

2/19/2002

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

FEB 19 2002

Ms. Luz G. Piwonka
Drexel Chemical Company
1700 Channel Avenue
Post Office Box 13327
Memphis, Tennessee 38113-0327

Subject: KOP-AM Complex
EPA Registration No. 19713-509
Your label amendment application dated November 21, 2001

Dear Ms. Piwonka,

The amended labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable, provided that you comply with the following conditions.

1. Make the following changes to the labeling.

   a. In the first sentence in the "ENVIRONMENTAL HAZARDS" section, insert "other" before "aquatic", since fish are also aquatic organisms.

   b. In each place where the phrase "chemical-resistant gloves" occurs, insert "made of any waterproof material" directly after it.

   c. In the "CHEMIGATION" section, delete the first sentence:

      "Do not apply this product through any irrigation system unless the supplemental labeling on chemigation is followed."

      Additional documents that are incorporated by reference in a label are also considered labeling and must first be approved by the Agency.

   d. In the second sentence of the "CONTAINER DISPOSAL" subsection of the "STORAGE AND DISPOSAL" section, change "...dispose of in a sanitary landfill or incineration..." to "...dispose of in a sanitary landfill or by incineration..."

2. Submit one copy of your final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration may be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions.

If you have any questions about this letter, please contact John Bazuin at (703)305-7381.

Sincerely yours,

Cynthia Giles-Parker
Product Manager (22)
Fungicide Branch
Registration Division (7505C)

Attachment: Label stamped "ACCEPTED with COMMENTS"

ACCEPTED
with COMMENTS
In EPA Letter Dated:
FEB 19 2002
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 19713-509

3/9

Drexel

KOP-AM Complex

Liquid Fungicide Spray

ACTIVE INGREDIENT:	
Copper, metallic*	8.0%
OTHER INGREDIENTS:	92.0%
TOTAL:	100.0%

*From Copper ammonium complex.
This product contains 0.784 pound of Copper per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See FIRST AID Below

SHAKE WELL BEFORE USING

EPA Reg. No. 19713-509
EPA Est. No. **Net Contents:** _____

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.

IF ON SKIN OR CLOTHING:
- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 to 20 minutes.

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 or convulsing person.

IF INHALED:
- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.

Call a poison control center or doctor for treatment advice. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information on this pesticide product (including health concerns, medical emergencies or pesticide incidents), call the National Pesticide Telecommunications Network at 1-800-858-7378.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION: Causes eye and skin irritation. Harmful if swallowed, absorbed through the skin or inhaled. May cause skin sensitization reaction in certain individuals. Avoid contact with the skin, eyes or clothing. Avoid breathing vapor or spray mist.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category G on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear: Long-sleeved shirt and long pants, chemical-resistant gloves, such as Barrier Laminate or Viton and shoes plus socks.

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.

ENGINEERING CONTROL STATEMENT

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticide (140 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should: 1) Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. 2) Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3) Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic organisms. For terrestrial uses, do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

Note: Add this statement to all container sizes of 5 gallons and higher. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

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

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

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

NON-AGRICULTURAL USE REQUIREMENTS

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

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

Manufactured For:
Drexel Chemical Company
P.O. BOX 13327, MEMPHIS, TN 38113-0327
SINCE 1972

CHEMIGATION

Do not apply this product through any irrigation system unless the supplemental labeling on chemigation is followed.

Apply this product only through center pivot, motorized lateral move or traveling gun sprinkler irrigation systems that do not contain aluminum components. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service Specialists, equipment manufacturers or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make the necessary adjustments should the need arise.

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

Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There should be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

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

The 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 withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

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.

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.

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.

Do not apply when wind speed favors drift beyond the area intended for treatment.

When mixing, fill the nurse tank half full with water. Add this product slowly to the tank while hydraulic or mechanical agitation is operating and continue filling the tank with water. Stickers, spreaders, nutrients, insecticides, etc. should be added last. If the compatibility is questionable, use the compatibility jar test before mixing a whole tank. Because of the wide variety of possible combinations that can occur, observe all cautions and limitations on the labels of all the products used in mixtures. This product should be continuously added through a traveling irrigation system. Agitation is recommended.

APPLICATION AND CALIBRATION TECHNIQUES FOR SPRINKLER IRRIGATION

Center pivot, Motorized Lateral Move and Traveling Gun Irrigation Equipment: Operate system and injection equipment at normal pressures recommended by the manufacturer of the injection equipment used. Fill tank of injection equipment with water. Operate system for one complete circle for center pivot or one complete run for motorized lateral move or traveling gun equipment, measuring time required, amount of water injected and acreage contained in circle or run. Mix recommended amount of this product for acreage to be covered into the same amount of water used during calibration and inject into system continuously for one revolution or run. Shut off injection equipment after one revolution or run, but continue to operate irrigation system until this product has been cleared from the last sprinkler head.

Solid set and Portable (Wheel move) Irrigation Equipment: Determine the acreage covered by the sprinkler. Fill tank of injection equipment with water and adjust flow to use contents over a 30 to 45 minute period. Mix the desired amount of this product for acreage to be covered into quantity of water used during calibration and operate entire system at normal pressures recommended by the manufacturer of injection equipment used for the amount of time established during calibration. This product can be injected at the beginning or the end of the injection cycle or as a separate application. Stop injection equipment after treatment is completed and continue to operate irrigation system until this product has been cleared from the last sprinkler head.

GENERAL INFORMATION

The control of diseases with fungicides is based on PREVENTION: plant surfaces must be completely covered with the fungicide to successfully prevent infection. Use the highest indicated rate per crop when disease incidence is high or expected to be, depending on rainfall and temperature. The low rate is suitable for general and preventative sprays under normal conditions. Since the weather conditions and disease incidence vary, consult your Agricultural Extension Service for timing and initial application.

GENERAL INSTRUCTIONS

Add this product last, with agitation during mixing and application, until tank is empty. Good bypass agitation is adequate. Observe all precautions and limitations on labeling of all products used in mixtures. In common with all good agricultural practice, start with clean equipment; equipment should be flushed well with water after use.

WATER RATES: Use enough for complete coverage.

Ground Application—Dilute Spraying: Apply specified rate in 10 to 100 gallons of water per acre. **Orchard and Grove Spraying:** Apply specified rate in 100 to 800 gallons of water per acre. **Concentrate Spraying:** On Vegetable crops use 5 to 25 gallons of spray mixture per acre; on Fruit and Nut trees use 20 to 250 gallons per acre.

AIR APPLICATION: Apply specified rate in 3 to 20 gallons of water per acre.

FRUIT AND NUT CROPS

Crop	Diseases	Rate of Application
Almonds	Brown rot	8 to 12 qts. per acre
	SPECIFIC DIRECTIONS: Apply at delayed-dormant bud swell stage. Dormant oil may be used.	
	Shot hole	8 to 12 qts. per acre
	SPECIFIC DIRECTIONS: Apply at leaf fall to protect buds and shoots from infection during rainy periods. Reapply every 3 to 4 weeks up to late bud swell. Do not apply after full bloom.	
Apples	Anthracnose	8 to 10 qts. per acre
	SPECIFIC DIRECTIONS: Apply to foliage after harvest, annually for red varieties and once every 2 to 3 years for yellow varieties.	
	Apple scab (black spot), Bacterial canker, Blossom and Shoot blast	8 to 12 qts. per acre
	SPECIFIC DIRECTIONS: Apply post-harvest before Fall rains.	
	Crown or Collar rot	4 qts. per acre in 100 gals. of water
	SPECIFIC DIRECTIONS: Apply 4 gals. of suspension as a drench on the lower trunk area of each tree. Apply either in early Spring or in late Fall after harvest. Do not use if soil pH is below 5.5 since copper toxicity may result.	
	Fireblight	1 to 2 qts. per acre
	SPECIFIC DIRECTIONS: Apply at 10% bloom and repeat at 5- to 7-day intervals during bloom period. Do not use on copper sensitive varieties. Apply 8 to 12 qts. per acre as a full cover spray between silver-tip and green-tip. Discontinue when green-tip reaches 0.5 inch as injuries may occur.	
Apricots	Brown rot blossom blight	8 to 12 qts. per acre
	SPECIFIC DIRECTIONS: Apply at red bud to jacket fall stage.	
	Shot hole	8 to 12 qts. per acre
	SPECIFIC DIRECTIONS: Apply at leaf fall to protect buds and shoots from infection during rainy periods. Reapply up to late bud swell. Do not apply after full bloom.	
Avocados	Anthracnose	8 qts. per acre
	SPECIFIC DIRECTIONS: Apply when the flower buds begin to swell and continue at monthly intervals until August.	

(Continued)

FRUIT AND NUT CROPS (Cont.)

Crop	Diseases	Rate of Application
Bananas	Sigatoka	2 to 4 qts. per acre
	SPECIFIC DIRECTIONS: Apply every 3 to 4 weeks.	
	Black pitting	5 to 8 qts. per 100 gals. of water
	SPECIFIC DIRECTIONS: Apply directly to the fruit stem and include the basal portion of the leaf crown. Apply during the first and second weeks after fruit emergence.	
Blueberries	Bacterial canker	8 to 10 qts. per acre
	SPECIFIC DIRECTIONS: Apply with a spreader/sticker before Fall rains and again 4 weeks later.	
	Cane canker	8 to 10 qts. per acre
	SPECIFIC DIRECTIONS: Apply with a spreader/sticker before Fall rains and again 4 weeks later. In the Spring during wet weather, apply at 10- to 14-day intervals beginning at leaf emergence.	
Caneberries	Anthracnose, Leaf and Cane spot, Purple blotch, Yellow rust	2 to 4 qts. per acre
	SPECIFIC DIRECTIONS: Apply when leaf buds open. Repeat when flower buds show white and continue at 10- to 14-day intervals.	
	Anthracnose, Bacterial blight, Leaf and Cane spot, Purple blotch, Yellow rust	8 to 12 qts. per acre
	SPECIFIC DIRECTIONS: Apply in the Fall after harvest.	
Cherries	Deadbud, Coryneum blight	6 qts. per 100 gals. of water
	SPECIFIC DIRECTIONS: Apply in October (before heavy Fall rains) and again in January. Where disease is severe, another application should be applied in August.	
	Brown rot blossom blight	2 to 3 qts. per 100 gals. of water
	SPECIFIC DIRECTIONS: Apply as a full cover spray at popcorn stage and at full bloom.	
Citrus	Greasy spot, Melanose, Pink pitting, Scab	0.75 to 2 qts. per 100 gals. of water **Aerial Application:** 6 to 8 qts. per 10 gals. of water per acre
	SPECIFIC DIRECTIONS: Apply as pre-bloom and post-bloom sprays. May be used in concentrate sprays at equivalent rates.	
	Brown rot	2 to 6 qts. per acre
	SPECIFIC DIRECTIONS: Apply in the Fall before or just after heavy rains. In areas of skirt sprays, apply to a height of at least 4 ft.	
Cocoa	Black pod rot	2 to 4 qts. per acre
	SPECIFIC DIRECTIONS: Apply on a 14- to 21-day schedule in high rainfall areas.	
Coffee	Iron spot, Pink disease	2 to 8 qts. per acre
	SPECIFIC DIRECTION: Apply 3 applications at monthly intervals at the beginning of the wet season.	
	Bacterial blight, Berry spot, Leaf spot, Leaf rust	3 to 8 qts. per acre
	SPECIFIC DIRECTIONS: Apply as locally recommended, usually at 3- to 4-week intervals depending upon disease severity and rainfall conditions.	
Cranberries	Fruit rot	8 qts. per acre
	SPECIFIC DIRECTIONS: Apply beginning in late bloom. One or two additional applications made at 10- to 14-day intervals may be required depending upon disease pressure. Follow the advice of the State Agricultural Extension Service.	
Currants, Gooseberries	Anthracnose, Leaf spot (cane blight)	5 to 10 qts. per acre
	SPECIFIC DIRECTIONS: Make 3 applications starting after harvest, before bloom and after petal fall.	
Filberts	Bacterial blight	10 to 12 qts. per acre
	SPECIFIC DIRECTIONS: Apply after harvest. Under severe conditions, apply again when three-fourths of the leaves have dropped.	
	Eastern filbert blight	10 to 12 qts. per acre
	SPECIFIC DIRECTIONS: Make initial application after harvest in October before heavy rains begin. The next application should be made in late February to early March followed by another application 1 month later. If desired, add 1 pt. of a sticking agent or superior type oil per 100 gals. of water. Use higher rates when rainfall is heavy and disease pressure is high.	
Grapes	Anthracnose, Black rot, Downy mildew, Powdery mildew	2 qts. per acre
	SPECIFIC DIRECTIONS: Apply just before bud break, when the shoots are 6 to 8 inches long, just after bloom and every 4- to 10-days throughout season as needed. Foliar injury may occur on copper-sensitive varieties.	
Hops	Downy mildew	2 qts. per acre
	SPECIFIC DIRECTIONS: Apply as needed at 10-day intervals. Begin with crown treatment (after pruning but before training) and continue until 2 weeks before harvest.	
Kiwi	*Pseudomonas syringea*, *Erwinia herbicola*, *Pseudomonas fluorescens*	8 qts. in 200 gals. of water per acre
	SPECIFIC DIRECTIONS: Make applications on a monthly basis. A maximum of 3 applications may be made.	
Limes	Greasy spot	8 qts. per acre
	SPECIFIC DIRECTIONS: Apply in June and continue at monthly intervals through August.	
Mangos	Anthracnose	8 qts. per acre
	SPECIFIC DIRECTIONS: Apply weekly from the time the panicles are 2 inches in length until all fruits are set and monthly thereafter until August.	
Olives	Peacock spot	8 to 12 qts. per acre OR 2 to 3 qts. per 100 gals. of water
	SPECIFIC DIRECTIONS: Make first application before Winter rains fall. A second application should be made in early Spring if disease is severe.	
Peaches, Nectarines	Bacterial spot	2 qts. per 100 gals. of water
	SPECIFIC DIRECTIONS: Apply as a dormant spray. Make post-bloom application. Apply at 0.5 pt. per 100 gals. at first and second cover sprays. DO NOT spray later than 3 weeks prior to harvest. DO NOT use at rates above those recommended. **Note:** Slight defoliation and spotting of leaves may occur from use in cover sprays.	
	Blossom brown rot	8 to 12 qts. per acre
	SPECIFIC DIRECTIONS: Apply as dormant or delayed-dormant spray. Can use with dormant spray oil. DO NOT apply at or after full bloom.	
	Leaf curl, Shot hole	8 to 12 qts. per acre
	SPECIFIC DIRECTIONS: Apply at leaf fall to protect buds and shoots from infection during rainy periods. Reapply up until late bud swell. DO NOT apply after full bloom.	
Pears, Quince	Fire blight	1 to 2 qts. per acre
	SPECIFIC DIRECTIONS: Apply at 10% bloom and repeat at 5- to 7-day intervals throughout the bloom period. Do not use on copper-sensitive varieties.	
	Blossom blast	8 to 12 qts. per acre
	SPECIFIC DIRECTIONS: Apply as a dormant spray. Apply only at bud break to control primary infection.	

(Continued)

FRUIT AND NUT CROPS (Cont.)

Crop	Diseases	Rate of Application
Pecans	Shuck and Kernel rot, Zonate leaf spot	4 to 10 qts. per acre
	SPECIFIC DIRECTIONS: For suppression, apply in sufficient water to ensure complete spray coverage at 2- to 4-week intervals starting at kernel growth and continuing until shucks open. Use the higher rate and shorter interval if frequent rainfall occurs.	
Pistachios	Alternaria late blight	8 to 12 qts. per acre
	SPECIFIC DIRECTIONS: Apply at 50% and full bloom followed by up to 3 applications at 30-day intervals.	
	Botrytis blight, Botryosphaeria panicle, Shoot blight, Septoria leaf blight	8 to 12 qts. per acre
	SPECIFIC DIRECTIONS: Make initial application at bud swell and repeat on a 14- to 28-day schedule as dictated by disease conditions. If disease conditions are severe, use the higher rate and shorter interval.	
Plums, Prunes	Brown rot blossom blight, Coryneum blight (shot hole)	8 to 12 qts. per acre
	SPECIFIC DIRECTIONS: Apply as a dormant spray before heavy rains begin. For Brown rot, apply at early green bud to full popcorn stages.	
	Bacterial blast, Bacterial canker	8 to 12 qts. per acre
	SPECIFIC DIRECTIONS: Apply at dormant to early pink stage. Where disease is severe, apply 1 qt. at 2-week intervals post-bloom. Slight leaf injury may occur.	
Walnuts	Walnut blight	8 to 12 qts. per acre
	SPECIFIC DIRECTIONS: Make first application at early pre-bloom. Make second application at late pre-bloom. Make additional applications if disease conditions persist.	

FIELD AND VEGETABLE CROPS

Crop	Diseases	Rate of Application
Alfalfa	Leaf spot	1 to 2 qts. per acre
	SPECIFIC DIRECTIONS: Apply by ground or air 10 to 14 days prior to harvest. Slight injury may occur to sensitive varieties.	
Beans, Lentils, Peas (succulent and dry)	Bacterial blight (halo and common)	1 to 3 qts. per acre
	SPECIFIC DIRECTIONS: Apply when plants are 3 to 5 inches high and before diseases appear. Repeat at 7- to 10-day intervals or 5- to 7-day intervals under severe disease pressure.	
Beets, Sugar beets	Cercospora leaf spot	1.5 to 3 qts. per acre
	SPECIFIC DIRECTIONS: Apply when disease appears making 3 to 6 sprays at 10- to 14-day intervals. Apply more frequently under severe disease pressure.	
Carrots	Early and Late blight	2 to 3 qts. per acre
	SPECIFIC DIRECTIONS: Apply when plants are 6 inches high. Make 3 to 5 applications at 7- to 10-day intervals.	
Celery	Bacterial blight, Early and Late blight	2 to 3 qts. per acre
	SPECIFIC DIRECTIONS: Apply as soon as plants are established in the field and repeat at 5- to 7-day intervals.	
Corn (field, pop, sweet)	Bacterial rot, Bacterial stripe, Bacterial wilt, Leaf blight, Stalk rot	2 qts. per acre
	SPECIFIC DIRECTIONS: Apply when disease appears and repeat as necessary.	
Crucifers [Broccoli, Brussels sprouts, Cabbage, Cauliflower, Greens (collard, mustard, turnip)]	Black leaf spot, Black rot	1 to 3 qts. per acre
	SPECIFIC DIRECTIONS: Apply by ground or air when disease appears and repeat at 7- to 10-day intervals.	
	Downy mildew	0.5 to 1 qt. per acre
	SPECIFIC DIRECTIONS: Apply by ground or air when disease appears and repeat at 7- to 10-day intervals.	
Cucurbits, (Cantaloupe, Cucumber, Honeydew, Muskmelon, Pumpkin, Squash, Watermelon)	Alternaria leaf spot, Angular leaf spot, Anthracnose, Downy mildew, Powdery mildew, Gummy stem blight, Watermelon bacterial fruit blotch	1.5 to 2 qts. per acre
	SPECIFIC DIRECTIONS: Apply by ground or air when disease appears and repeat at 7- to 10-day intervals.	
Eggplant	Alternaria blight, Anthracnose, Phomopsis	2 qts. per acre
	SPECIFIC DIRECTIONS: Apply before disease appears and repeat at 7- to 10-day intervals.	
Onions	Downy mildew, Purple blotch	2 qts. per acre
	SPECIFIC DIRECTIONS: Apply when plants are 4 to 6 inches high and repeat at 7- to 10-day intervals.	
Peanuts	Cercospora leaf spot	1.5 to 3 qts. per acre
	SPECIFIC DIRECTIONS: Apply on first appearance of disease and repeat at 10- to 14-day intervals.	
	Pod rot complex (*Pythium myriotylum, Rhizoctonia solani and Sclerotium rolfsii*)	12 qts. per acre
	SPECIFIC DIRECTIONS: Apply at pegging in a 12- to 15-inch band over the row.	
Peppers	Bacterial spot, Cercospora leaf spot	1.5 to 3 qts. per acre
	SPECIFIC DIRECTIONS: Make first application upon emergence of seedlings or immediately after transplanting and repeat at 7- to 10-day intervals. When disease is severe, apply at 4- to 5-day intervals. **Note:** Disease control is critical during fruiting.	
Potatoes	Early and Late blight	1.5 to 3 qts. per acre
	SPECIFIC DIRECTIONS: Apply on first appearance of disease and continue on 7- to 10-day intervals.	
Spinach	Anthracnose, Cercospora leaf spot, Downy mildew	1.5 qts. per acre
	SPECIFIC DIRECTIONS: Apply on first appearance of disease and repeat at 7- to 10-day intervals.	
Strawberries	Leaf spot, Scorch	1.5 to 2 qts. per acre
	SPECIFIC DIRECTIONS: Apply at 7- to 10-day intervals from the time new growth starts until harvest.	
Tobacco	Angular leaf spot	4 to 5 qts. per acre
	SPECIFIC DIRECTIONS: Apply on 7- to 10-day basis when disease appears. Destroy all infected plants.	
	Blue mold	2 qts. per acre
	SPECIFIC DIRECTIONS: Apply every 7 to 10 days when disease appears.	
	Brown spot	4 to 5 qts. per acre
	SPECIFIC DIRECTIONS: Apply every 7 to 10 days when disease appears.	
	Damping-off disease	5 to 6 qts. per acre
	SPECIFIC DIRECTIONS: Apply to the seed bed after planting. Avoid overwatering.	
	Frog eye disease	4 to 5 qts. per acre
	SPECIFIC DIRECTIONS: Apply just before transplanting and when topped.	
	Wild fire	2 qts. per acre
	SPECIFIC DIRECTIONS: Apply every 7 days from seeding to transplanting.	

(Continued)

FIELD AND VEGETABLE CROPS (Cont.)

Crop	Diseases	Rate of Application
Tomatoes	Bacterial speck, Bacterial spot, Early and Late blight	1.5 to 3 qts. per acre
	SPECIFIC DIRECTIONS: Make first application upon emergence of seedlings or immediately after transplanting and repeat at 7- to 10-day intervals. When disease is severe, apply at 4- to 5-day intervals. Complete coverage is essential for disease control. **Note:** While the labeled rate is particularly effective against Bacterial spot, a tank mix with Maneb or Mancozeb used at the labeled rates controls a broad range of diseases.	
Wheat, Oats, Barley	Helminthosporium spot blotch, Septoria leaf blotch	1.5 to 2 qts. per acre
	SPECIFIC DIRECTIONS: Apply at early heading and follow with second spray 10 days later. Use the higher rate when conditions favor disease.	
	Bacterial wilt, Head scab	2 qts. per acre
	SPECIFIC DIRECTIONS: Apply when disease appears and repeat as necessary.	

MISCELLANEOUS

Crop	Diseases	Rate of Application
Atemoyas, Carambolas	Anthracnose	3 qts. per acre
	SPECIFIC DIRECTIONS: Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.	
Chives	Downy mildew	2 qts. per acre
	SPECIFIC DIRECTION: Begin applications when plants are first established in the field. Repeat applications every 7 to 10 days as dictated by disease conditions. If disease pressure is high, use the shorter spray interval.	
Dill	*Phoma* leaf spot, *Rhizoctonia* foliage blight	3 qts. per acre
	SPECIFIC DIRECTIONS: Begin applications when plants are first established in the field and repeat at 7- to 10-day intervals depending upon disease severity and environmental conditions. If disease pressure is high, use the shorter spray interval.	
Douglas fir	Rhabdocline needlecast	2 qts. per acre
	SPECIFIC DIRECTIONS: Begin applications at bud break and repeat at 3- to 4-week intervals. Apply in a tank mix with another registered pesticide if moderate to severe disease pressure is present.	
Ginseng	Alternaria leaf and stem blight	3.5 qts. per acre
	SPECIFIC DIRECTIONS: Use as a tank mix with 2 lbs. Rovral 50W in 100 gallons of water. Begin applications of this tank mix as soon as plants have emerged in Spring. Applications should be repeated every 7 days until plants become dormant in Fall. If scheduled application is to be before a rain shower, apply fungicides at least 8 hours before the rain, giving the fungicides time to dry on the plants. Use of a spreader-sticker is advised. **Note:** Alternaria leaf and stem blight are most severe in humid conditions such as those found in the dense canopies of 2-, 3- and 4-year old Ginseng. It is very important that the stems be thoroughly covered with fungicide; therefore, use a spray apparatus which distributes the fungicide throughout the canopy.	
Guava	Anthracnose, Red algae	3 qts. per acre
	SPECIFIC DIRECTION: Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.	
Litchi	Anthracnose	3 qts. per acre
	SPECIFIC DIRECTION: Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.	

Crop	Diseases	Rate of Application
Live Oak	Ball moss	6 qts. per acre
	SPECIFIC DIRECTIONS: Apply in the Spring when Ball moss is actively growing, using 1.5 gals. of spray per ft. of tree height. Make sure to wet Ball moss tufts thorughly. A second application may be required after 12 months. **Note:** This product may be injurious to ornamentals grown under Live oaks. This product may be reactive on metal and masonry surfaces such as galvanized roofing. Avoid contact with metal surfaces. Do not spray on cars, houses, lawn furniture, etc.	
Macadamia	Anthracnose	6 qts. per acre
	SPECIFIC DIRECTIONS: Initiate spray at first sign of flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.	
	Phytopthora blight, Raceme blight	4 to 6 qts. per acre
	SPECIFIC DIRECTIONS: Apply during Raceme development and bloom periods. Apply in sufficient water for thorough coverage.	
Mamey sapote	Anthracnose, Algal leaf spot	6 to 8 qts. per acre
	SPECIFIC DIRECTIONS: Apply when conditions favor disease. Repeat on 14- to 30- day schedule as disease severity and environmental conditions dictate.	
Papayas	Anthracnose	4 to 10 qts. per acre
	SPECIFIC DIRECTIONS: Begin applications before disease appears and repeat at 10- to 14-day intervals. Apply at 5- to 7-day intervals during periods of heavy rainfall. Use higher rates when conditions favor disease.	
Parsley	Bacterial blight	3 qts. per acre
	SPECIFIC DIRECTIONS: Begin applications when plants are first established in the field and repeat at 5- to 7-day intervals depending upon disease severity and environmental conditions.	
Passion fruit	Anthracnose	6 qts. per acre
	SPECIFIC DIRECTIONS: Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.	
Sugar apples (annona)	Anthracnose	8 to 12 qts. per acre
	SPECIFIC DIRECTIONS: Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage.	
Sycamore	Anthracnose	2 to 3 qts. per acre
	SPECIFIC DIRECTIONS: Apply as a full coverage spray. Apply in 100 gals. of water or sufficient volume for thorough coverage. Make first application at bud crack and second application 7 to 10 days later at 10% leaf expansion.	

CITRUS (Field Nursery Grown)

To control Brown rot, Citrus canker (suppression), Greasy spot, Melanose, Pink pitting and Scab, apply 2 quarts of this product per 100 gallons of water (4 to 8 quarts per acre). Apply this product at 28-day intervals or as needed depending on disease severity.

TURFGRASS

To control Algae in Turfgrass, apply 1 pint of this product per 1,000 square feet in 5 gallons of water. This product may be used alone or in combination with other registered fungicides as a maintenance spray. Observe all precautions and limitations on the label of each product used in tank mixes.

Note: Phytotoxicity may occur depending upon varietal differences. Apply the recommended rate to a small area and observe for 7 to 10 days for signs of injury. If phytotoxicity occurs, discontinue use. Do not apply in a spray solution with a pH of less than 6.5.

GREENHOUSE AND SHADE HOUSE CROPS

Notice to User: This product may be used in greenhouses and shade houses to control diseases on some crops which appear on this label. The grower should bear in mind that the sensitivity of crops grown in greenhouses and shade houses differ greatly from crops grown under field conditions. Neither the Manufacturer nor the Seller has determined whether or not this product can be used safely on all greenhouse and shade house-grown crops. The user should determine if this product can be used safely prior to commercial use. In a small area, apply the recommended rates to the plants in question, i.e., foliage, fruit, etc., and observe for 7 to 10 days for symptoms of phytotoxicity prior to commercial use.

Crop	Diseases	Rate of Application
Eggplant	Alternaria blight, Anthracnose, Phomopsis	4 tbsps. per 1,000 sq. ft.
	SPECIFIC DIRECTIONS: Begin applications prior to development of disease symptoms. Repeat spray at 7- to 10-day intervals or as disease pressure dictates.	
Peppers	Bacterial spot	4 to 6 tbsps. per 1,000 sq. ft.
	SPECIFIC DIRECTIONS: Begin applications when conditions first favor disease development and repeat at 5- to 10-day intervals as needed depending on disease severity. Use higher rate for severe disease.	
Tomatoes	Early and Late blight	4 to 6 tbsps. per 1,000 sq. ft.
	SPECIFIC DIRECTIONS: Begin applications when disease first threatens and repeat at 7- to 10-day intervals or as needed depending on disease severity. Use higher rate for severe disease.	
	Bacterial speck	4 to 6 tbsps. per 1,000 sq. ft.
	SPECIFIC DIRECTIONS: Begin applications when disease first threatens and repeat at 7- to 10-day intervals or as needed depending on disease severity.	
	Anthracnose, Bacterial spot, Gray leaf mold, Septoria leaf spot	4 to 8 tbsps. per 1,000 sq. ft.
	SPECIFIC DIRECTIONS: Begin applications when disease first threatens and repeat at 7- to 10-day intervals or as needed depending on disease severity. Use higher rate for severe disease.	
Citrus (non-bearing nursery)	Brown rot, Citrus canker, Greasy spot, Melanose, Pink pitting, Scab	6 tbsps. per 1,000 sq. ft.
	SPECIFIC DIRECTIONS: Begin applications when disease threatens. Repeat at 30-day intervals or as needed depending on disease severity.	

ORNAMENTALS

Notice to User: Plant sensitivities to this product have been found to be acceptable in specific genera and species listed on this label; however, it is impossible to know sensitivities under all conditions and phytotoxicity may occur. Due to the large number of species and varieties of ornamentals and nursery plants, it is impossible to test every one for sensitivity to this product. Neither the Manufacturer nor Seller recommends use upon species not listed on the label, nor has it been determined that this product can be safely used on ornamental or nursery plants not listed on this label. The user should determine if this product can be used safely prior to commercial use.

Use this product on container, bench or bed-grown ornamentals in greenhouses, shade houses or outdoor nurseries, for professional use on ornamentals grown in indoor and outdoor landscaping and for control of bacterial and fungal diseases of foliage, flowers and stems. Apply as a thorough coverage spray using 1 quart of this product per 100 gallons of water. Begin application at first sign of disease and repeat at 7-to 14-day intervals as needed. Use shorter interval during periods of frequent rains or when severe disease conditions persist.

This product may be used alone or in combination with other registered fungicides as a maintenance spray. Observe all precautions and limitations on the label of each product used in tank mixes.

Note: Do not tank-mix this product with Aliette fungicide unless appropriate precautions have been taken to buffer the spray solution. Severe phytotoxicity may result if adequate precautions are not taken.

Crop, *Latin name*, Disease

Althaea (Rose of Sharon), *Hibiscus syriacus*, Bacterial leaf spot. **Aralia**, *Dizygotheca elegantissima*, Xanthomonas leaf spot, Cercospora leaf spot, Alternaria. **Arborvitae**, *Thuja spp.*, Alternaria twig blight, Cercospora leaf blight. **Azalea**[1], *Rhododendron spp.*, Cercospora leaf spot, Botrytis blight, Phytophthora dieback, Powdery mildew. **Begonia**, *Begonia semperflorens*, Bacterial leaf spot (Xanthomonas sp., Erwina sp., Pseudomonas sp.). **Bougainvillea**, *Bougainvillea spectabilis*, Anthracnose, Bacterial leaf spot. **Bulbs (Tulip, Gladiolus)**, *Miscellaneous*, Anthracnose, Botrytis blight. **Camellia**, *Camellia japonica, C. sasanqua*, Anthracnose, Bacterial leaf spot. **Camphor tree**, *Cinnamomum camphora*, Pseudomonas leaf spot. **Canna**, *Canna spp.*, Pseudomonas leaf spot. **Carnation**[1], *Dianthus spp.*, Alternaria blight, Pseudomonas leaf spot, Botrytis blight. **Chinese tallow tree**, *Sapium sebiferum*, Bacterial leaf spot (Xanthomonas sp., Pseudomonas sp.). **Chrysanthemum**[1], *Chrysanthemum morifolium*, Septoria leaf spot, Botrytis blight. **Cotoneaster**, *Cotoneaster spp.*, Botrytis blight. **Dahlia**, *Dahlia pinnata*, Alternaria leaf spot, Botrytis gray mold, Cercospora leaf spot. **Date palm**, *Phoenix canariensis*, Pestalotia leaf spot. **Dianthus**, *Dianthus spp.*, Bacterial spot, Bacterial soft rot. **Dogwood**, *Cornus florida*, Anthracnose. **Dusty miller**, *Senecio cineraria*, Bacterial leaf spot (Pseudomonas chichorii). **Easter lily**[2], *Lilium longiflorum*, Botrytis blight. **Echinacea**, *Echinacea spp.*, Bacterial leaf spot (Pseudomonas cichorii). **Elm "Drake"**, *Ulmus parvifolia*, Xanthomonas leaf spot. **Euonymus**, *Euonymus spp.*, Botrytis blight, Anthracnose. **European fan palm**, *Chamaerops humilis*, Pestalotia leaf spot. **Gardenia**, *Gardenia jasminoides*, Alternaria leaf spot, Botrytis bud rot, Cercospora leaf spot. **Geranium**, *Pelargonium spp.*, Alternaria leaf spot, Botrytis gray mold, Cercospora leaf spot. **Gladiolus**, *Gladiolus spp.*, Alternaria leaf spot, Botrytis gray mold, Bacterial leaf blight. **Goldenrain tree**, *Koelreuteria paniculata*, Bacterial leaf spot. **Hibiscus**, *Hibiscus rosa-sinensis*, Bacterial leaf spot. **Holly fern**, *Cyrtomium falcatum*, Pseudomonas leaf spot. **Impatiens**, *Impatiens sallerana*, Bacterial leaf spot. **India hawthorn**[3], *Rhaphiolepis indica*, Anthracnose, Entomosporium leaf spot. **Ivy (English, Algerian)**[1], *Hedera helix, H. canariensis*, Xanthomonas leaf spot. **Ixora**, *Ixora coccinea*, Xanthomonas leaf spot. **Juniper (Eastern red cedar)**, *Juniperus virginiana*, Anthracnose. **Lantana**, *Lantana camara*, Bacterial leaf spot. **Lilac**, *Syringa spp.*, Cercospora leaf spot. **Loblolly bay**, *Gordonia lasianthus*, Anthracnose. **Loquat**, *Eriobotrya japonica*, Entomosporium maculata, Colletotrichum sp. **Magnolia (Saucer)**, *Magnolia soulangiana*, Bacterial leaf spot. **Magnolia (Southern)**, *Magnolia grandiflora*, Algal leaf spot, Anthracnose, Bacterial leaf spot. **Magnolia (Sweet bay)**, *Magnolia virginiana*, Anthracnose. **Mandevillas**, *Mandevilla spp.*, Anthracnose. **Marigold**, *Tagetes spp.*, Alternaria leaf spot, Botrytis leaf and flower rot, Cercospora leaf spot. **Mulberry, weeping**, *Morus alba*, Bacterial leaf spot. **Oak, Laurel**, *Quercus laurifolia*, Algal leaf spot (Cephaleuros virescens). **Oleander**, *Nerium oleander*, Bacterial leaf spot, Fungal leaf spot. **Pachysandra**, *Pachysandra procumbens*, Volutella leaf blight. **Pansy**, *Viola spp.*, Downy mildew. **Pear (Flowering)**, *Pyrus calleryana*, Fireblight, Leaf spot. **Pentas (Egyptian star)**, *Pentas spp.*, Bacterial leaf spot (Xanthomonas sp.). **Peony**, *Paeonia spp.*, Botrytis blight. **Periwinkle**, *Catharanthus roseus, Vinca spp.*, Phomopsis stem blight. **Philodendron**, *Philodendron selloum*, Bacterial leaf spot. **Phlox**, *Phlox spp.*, Alternaria leaf spot. **Photinia**, *Photinia fraseri, P. glabra*, Anthracnose, Entomosporium. **Pistachio**, *Pistacia chinensis*, Anthracnose. **Plantain lily**, *Hosta spp.*, Bacterial leaf spot. **Powder puff plant**, *Calliandra spp.*, Bacterial leaf spot. **Pyracantha**, *Pyracantha spp.*, Fireblight, scab. **Queen palm**, *Syagrus romanzoffianum*, Exosporium leaf spot, Phytophthora bud rot. **Rhododendron**, *Rhododendron spp.*, Alternaria flower spot. **Rose**[1], *Rosa spp.*, Powdery mildew, Black spot. **Verbena**, *Verbena spp.*, Xanthomonas leaf spot. **Viburnum**, *Viburnum odoratissimum, V. suspensum*, Anthracnose. **Washingtonia palm**, *Washingtonia robusta*, Pestalotia leaf spot. **Weeping willow**, *Salix babylonica*, Anthracnose. **Yucca (Adam's needle)**, *Yucca spp.*, Cercospora leaf spot, Septoria leaf spot.

FROST INJURY PROTECTION

Bacterial Ice Nucleation Inhibitor—Application of this product made to all crops listed on this label at rates indicated on this label, just prior to anticipated frost conditions, will sustain control of ice nucleating bacteria (Pseudomonas syringae, Erwina herbicola and Pseudomonas fluorescens) and may therefore provide protection against light frost. Not recommended for those geographic areas where weather conditions favor severe frost.

TREATMENT OF WOOD BASED COMPOSITES

For treatment of composite wood products for protection from fungal decay and termite attack, this product can be applied to the furnish (fiber, flakes, chips, particles or strands) either as a solution concentrate or, alternately, diluted with water. The weight percent loading on the furnish should range from 1.0% w/w to 4.0% w/w as copper ammonium acetate complex (0.26 to 1.1% copper metal). The actual amount of copper ammonium acetate complex to make the composite, the desired distribution of this product in the composite, and the anticipated exposure conditions end use of the composite

of the composite wood product. Consult manufacturer for recommendations on specific products and applications.

Apply the treatment solution by spraying the composite wood component with a low-pressure sprayer. A moderately fine spray, not an aerosol or fog, generally provides the best coverage. Apply in a commercial spray booth. Treatment solution may also be applied by immersing the composite wood components. Immersion systems should be fully contained to recycle any excess solution.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Storage should be under lock and key and secure from access by unauthorized persons and children. Storage should be in a cool, dry area away from any heat or ignition source. Do not stack over 2 pallets high. Move containers by handles or in cases. Do not move containers from one area to another unless they are securely sealed. Keep container tightly sealed when not in use. Keep away from any puncture source. Avoid storage near water supplies, food, feed and fertilizer to avoid cross-contamination. Store in original containers only. If the contents are leaking or material is spilled, follow these steps:

1. Contain spill. Absorb with a material such as sawdust, clay granules or dirt.
2. Collect and place in suitable containers for disposal.
3. Wash area with soap and water to remove remaining pesticide.
4. Follow washing with clean water rinse.
5. Do not allow runoff to enter sewer or contaminate water supplies.
6. Dispose of wastes as indicated below:

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration or, if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

WARRANTY—CONDITION OF SALE

OUR RECOMMENDATIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the Seller. Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith.

In no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.

[1] Discoloration of foliage and/or blooms has been noted on some varieties. To prevent residues on commercial plants, do not spray just before selling season.

[2] Apply this product at 3 to 5 quarts per acre in 20 to 100 gallons of water per acre.

[3] For India Hawthorn, use 2 to 4 quarts per 100 gallons or 2 to 4 level tablespoons per gallon.