

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (H7505C)
401 "M" St., S.W.
Washington, D.C. 20460

Reregistration

<u>x</u> Registration

:OTICE OF PESTICIDE:

EPA Reg. Number: 100 - 796

Date of Issuance: MAR 2.2 1996

Term of Issuance:

Time-Limited

Name of Pesticide Product:

Mefenoxam MC

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Ciba-Geigy Corp. P.O. Box 18300

Greensboro, NC 27419-8300

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.

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 registered in accordance with section 3(c)(5) of FIFRA subject to the following terms:

- 1. This registration shall expire on March 5, 1997 without opportunity for hearing.
- 2. EPA may, by order and without opportunity for hearing, cancel this registration prior to March 5, 1997 if the Agency determines, based upon comments submitted pursuant to section 3(c)(4) of FIFRA, or upon any other information that this product no longer meets the requirements of section 3(c)(5).
- 3. You must submit to the Agency a written request to voluntarily cancel Metalaxyl Technical and its end use products within 10 business days from the date of this registration.
- 4. Submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 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.

(cont'd on page 2)

Signature of Approving Official:			
-	- A	1.1.1.	

Date:

3/22/94

PA Form 8570-6

- 5. Any outstanding data requirements cited in the Metalaxyl Reregistration Eligibility Document (RED) also apply to Mefenoxam. These studies may be conducted on either Metalaxyl or Mefenoxam.
- 6. Revise the EPA Registration Number to read, "EPA Reg. No. 100-796".
  - 7. Submit five copies of your final printed label.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 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.

F.03

Labelmaster Booklet (Front Cover)

with COMMENTS In EPA Letter Dated

MAR 22 1996

Mefenoxam MC

**FUNGICIDE** 

Under the Federal Insecticid Fundicide, and Redenticide Act as amended, for the posts registered under EPA Reg. No.

For the control of certain diseases in conifers, nonbearing citrus, nonbearing deciduous fruits and nuts, omamentals, and turf

**Active Ingredient:** 

Mefenoxam: (R)-2-[(2,6-dimethylphenyl)methoxyacetylamino]-propionic acid

methyl ester ..... Related Compounds..... inert ingredients: 78.0% Total: 100.0%

KEEP OUT OF REACH OF CHILDREN.

# CAUTION

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-

EPA Est. 100-AL-1, 67517-MO-1 (15 gal.)

One Gallon

U.S. Standard Measure

One Quart

U.S. Standard Measure

Fifteen Gallons

U.S. Standard Measure

CGA

- 1 Gallon

CGA

- 1 Quart

CGA

- 15 Gallons

[LABELM-W/MEFNX-MC] - 3/5/96

#### DIRECTIONS FOR USE AND CONDITIONS OF SALE AND WARRANTY

IMPORTANT: Read the entire **Directions for Use** and the **Conditions of Sale** and **Warranty** before using this product. If terms are not acceptable, return the unopened product container at once.

# **Conditions of Sale and Warranty**

The **Directions for Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application all of which are beyond the control of Ciba-Geigy or the Seller. All such risks shall be assumed by the Buyer.

Ciba-Geigy warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use subject to the inherent risks referred to above. Ciba-Geigy makes no other express or implied warranty of Fitness or Merchantability or any other express or implied warranty. In no case shall Ciba-Geigy or the Seller be liable for consequential, special, or indirect damages resulting from the use or handling of this product. Ciba-Geigy and the Seller offer this product, and the Buyer and user accept it, subject to the foregoing Conditions of Sale and Warranty, which may be varied only by agreement in writing signed by a duly authorized representative of Ciba-Geigy.

#### **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, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours. Exception: If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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
- Waterproof gloves
- Shoes plus socks

#### NON-AGRICULTURAL USE REQUIREMENTS

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

Do not enter treated areas without protective clothing until sprays have dried.

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR DISEASE CONTROL OR CROP INJURY.

#### **General Information**

Mefenoxam MC is a systemic fungicide for use on ornamentals; turf; nonbearing citrus grown in nurseries and as landscape plantings; conifers grown in nurseries and plantations, including Christmas trees; and nonbearing deciduous fruit and nut trees grown in nurseries.

Notes: (1) Mefenoxam MC is a systemic fungicide having a specific mode of action. Use of Mefenoxam MC could result in development of insensitive strains of fungi. Development of insensitivity cannot be predicted. Therefore, Ciba-Geigy cannot assume liability for crop damage resulting from insensitive strains of fungi. Consult with your State Agricultural Experiment Station or Extension Service Specialist for guidance and ways to control any possible Mefenoxam MC insensitive strains of fungi which may occur. (2) To help decrease the chance of downy mildew insensitivity, do not use Mefenoxam MC for control of downy mildew diseases, except for use in turf. Use Mefenoxam MC only as a soil application for control of soil-borne diseases with the exception of azalea petal blight.

To avoid spray drift, do not apply under windy conditions. Avoid spray overlap, or crop injury may result.

### **Mixing Instructions**

Mefenoxam MC is usually compatible with D•z•n®, Triumph®, Banner®, Sprint®, Pennant®, Daconil®, Tersan® LSR, Fore®, and Acti-dione TGF®.

To determine the compatibility of Mefenoxam MC with these and other products, pour the products into a small container of water in the correct proportions. After thorough mixing, let stand for 5 minutes. If the combination remains mixed, or can be remixed readily, the mixture should be considered compatible.

Prepare no more spray mixture than is required for the immediate operation. Agitate the spray solution continuously during mixing and during application. Rinse the spray tank thoroughly with clean water after each day's use and dispose of pesticide rinsate by application to an already treated area.

Mefenoxam MC Alone: Add 1/4-1/2 of the required amount of water to the spray tank. With the agitator running, add the Mefenoxam MC to the tank. Continue agitation while adding the remainder of the water. Begin application of the spray solution after the Mefenoxam MC has completely dispersed into the mix water. Maintain agitation until all of the mixture has been sprayed.

Mefenoxam MC + Tank Mixtures: Add 1/4-1/2 of the required amount of water to the spray tank. Start the agitator before adding any tank mix partners. In general, tank mix partners should be added in this order: wettable powders, dry flowable formulations, liquid flowable formulations, microencapsulated formulations such as Mefenoxam MC, and emulsifiable concentrates. Always allow each tank mix partner to become fully dispersed before adding the next product. Provide sufficient agitation while adding the remainder of the water and the Mefenoxam MC to the spray tank. Allow the Mefenoxam MC to completely disperse into the mix water. Maintain agitation until all of the mixture has been sprayed.

**Note**: When using Mefenoxam MC in tank mixtures, all products in water-soluble packaging should be added to the tank before any other tank mix partner, including Mefenoxam MC. Allow the water-soluble packaging to completely dissolve and the product(s) to completely disperse before adding any other tank mix partner to the tank.

If using Mefenoxam MC in a tank mixture, observe all directions for use, crops/sites, use rates, dilution ratios, precautions, and limitations which appear on the tank mix partner label. No label dosage should be exceeded and the most restrictive label precautions and limitations should be followed. This product should not be mixed with any product which prohibits such mixing. Tank mixtures or other applications of products referenced on this label are permitted only in those states in which the products are registered.

# **Application Instructions**

For banded applications, calculate the amount of Mefenoxam MC needed as follows:

band width in inches row width in inches

X broadcast rate per acre

= amount needed per acre

# **Application Through Irrigation Systems**

Mefenoxam MC alone or in tank mixture with other pesticides registered for application through irrigation systems may be applied in irrigation water at rates recommended on this label. This product may be applied through center pivot, solid set, hand-move, moving wheel, micro sprinklers, or drip irrigation systems. Do not apply this product through any other type of irrigation system. Plant injury or lack of effectiveness may result from nonuniform 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 label-prescribed safety devices for public water supplies are in place. A person knowledgeable of the chemigation system and responsible for its operation shall shut the system down and make necessary adjustments should the need arise.

Dilute Mefenoxam MC with water in the solution tank at a ratio of at least 15 parts Mefenoxam MC to 1 part water. Liquid fertilizer may replace all or part of the water. If diluted in liquid fertilizer, the pH level must be less than 7.5. Inject Mefenoxam MC solution at a ratio 50:1 or greater. Injecting a larger volume of a more dilute mixture will usually allow a more accurate calibration of the metering equipment. Meter the fungicide into the irrigation water during the first part of the irrigation cycle.

**Note**: Mefenoxam MC is highly corrosive to seals and other pump components. Recommended components are Teflon, polyethylene, polypropylene, and nylon. When Mefenoxam MC is diluted at least 50:1, silicone rubber and viton can be used. Do not use PVC, or EPDM based components.

# Safety Devices for Irrigation Systems Connected to Public Water Supplies

If the source of water for your irrigation system is a public water supply, follow the instructions below.

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.

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- 2. 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, 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.
- The pesticide injection pipeline must contain a functional, automatic, quickclosing check-valve to prevent the flow of fluid back toward 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 withdrawn 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 (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. Do not apply when wind speed favors drift beyond the area intended for treatment.

# Safety Devices for Irrigation Systems Not Connected to a Public Water Supply

- 1. The system must contain a functional check-valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quickclosing check-valve to prevent the flow of fluid back toward the injection pump.
- 3. The pesticide injection pipeline must also contain a functional normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from

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

- 4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where the pesticide distribution is adversely affected.
- 6. Systems must use a metering pump such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. Do not apply when wind speed favors drift beyond the area intended for treatment.

# **Application Instructions**

Mefenoxam MC must be applied on the schedule specified in the use recommendations, not according to the irrigation schedule.

The following calibration and application techniques are provided for user reference, but do not constitute a warranty of fitness for application through sprinkler irrigation equipment. Users should check with state and local regulatory agencies for potential use restrictions before applying any agricultural chemical through sprinkler irrigation equipment.

# **Center Pivot Irrigation Equipment**

Note: (1) Use only with drive systems which provide uniform distribution. (2) Do not use end guns when chemigating Mefenoxam MC through center pivot systems because of non-uniform application. (3) Plug the first nozzle closest to well head to protect water source.

- 1. Determine the size of the area to be treated.
- 2. Determine the time required to apply 1/4-1/2 inch water over the area to be treated when the system and injection equipment are operated at normal pressures as recommended by the equipment manufacturer. But the system at 80-95% of the manufacturer's rated capacity.
- 3. Using water, determine the injection pump output when operated at normal, line pressure.

- 4. Determine the amount of Mefenoxam MC required to treat the area covered by the irrigation system.
- 5. Add the required amount of Mefenoxam MC and sufficient water to meet the injection time requirements to the solution tank.
- 6. Make sure the system is fully charged with water before starting injection of the Mefenoxam MC solution. Time the injection to last at least as long as it takes to bring the system to full pressure.
- 7. Maintain constant solution tank agitation during the injection period.
- 8. Stop injection equipment after treatment is completed. Continue to operate the system until the Mefenoxam MC solution has cleared the sprinkler head.

# Solid Set, Hand-Move, and Moving Wheel Irrigation Equipment

- 1. Determine the acreage covered by the sprinklers.
- 2. Fill injector solution tank with plain water and calibrate the flow rate of the system to deliver the contents of the tank over a 20 to 30-minute time interval.
- 3. Determine the amount of Mefenoxam MC required to treat the area covered by the irrigation system.
- 4. Add the required amount of Mefenoxam MC into the same quantity of water used to calibrate the injection period.
- 5. Operate system at the same pressure and time interval established during the calibration.
- 6. Inject Mefenoxam MC at the beginning of the irrigation cycle in 1/2-1 inch of water or as a separate application to maximize the effectiveness of the fungicide.
- Stop injection equipment after treatment is completed. Continue to operate
  the system until the Mefenoxam MC solution has cleared the last sprinkler
  head.

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Micro Sprinkler or Drip Irrigation Systems	*****
General Instructions	* * * *

- Each run of the irrigation system must be calibrated separately to determine the time it takes water to move through the system and to make sure all emitters in the system are putting out the same amount of water.
- 2. Only pressure injection or venturi equipment is recommended.
- 3. Determine the area to be treated in each irrigation run.
- 4. Measure the output of each of the emitters or drip tubes closest to and farthest from the injector site.
- 5. For calibration, substitute a concentrated detergent (such as Wisk) for the Mefenoxam MC in the injector tank. It is important to use the same volume of soap solution as the planned volume of Mefenoxam MC solution when calibrating the system. The detergent will bubble as it leaves the emitters. The time period over which bubbles occur should be checked for both the closest and farthest emitters. If these times are not within 2 minutes of each other, adjust the dilution ratio and/or the injection rate.

# Step-by-Step Instructions

- 1. Before starting to calibrate, operate the system until all the emitters are putting out at equal flow rates or until the system is operating at full pressure.
- 2. Make up an indicator solution of detergent or fertilizer, using the same ratio to be used with mixing Mefenoxam MC.
- 3. Set the injector to apply the indicator solution at the injection rate to be used in the actual Mefenoxam MC application.
- 4. Attach a 5-inch length of flexible tubing over the emitter closest to the injection point, another length over the emitter farthest away. Both emitters should be monitored to determine the time intervals that the indicator solutions are observed.
- 5. Begin injecting the indicator solution. Direct the flow from the tubes at the emitters into a small container. Begin timing when the indicator solution is first detected, stop timing when the indicator solutions are no longer detected.
- 6. If the period of detection of the indicator solution between the 2 emitters are within 2 minutes of each other, comparable coverage will be obtained. If they are not, make adjustments by increasing the dilution ratio, using more water per part of Mefenoxam MC, or adjust the injector to a slower flow rate.

- Once the system is calibrated, dilute the needed amount of Mefenoxam MC with water using a minimum of 15 parts water to 1 part Mefenoxam MC in the solution tank.
- 8. Do not begin to inject Mefenoxam MC into the system until all emitters are producing equal flow rates, or until the system is at full pressure.
- 9. Inject the Mefenoxam MC into the system at the beginning of the irrigation set in 1/2 1 inch of irrigation water.

#### **Ornamentals**

Use Mefenoxam MC on container, bench, or bed-grown ornamentals in greenhouses or outdoor nurseries, and for use on ornamentals grown for indoor and outdoor landscaping, for control of damping-off, and root and stem rot diseases caused by Pythium and Phytophthora. Mefenoxam MC may be applied through irrigation systems, as a soil drench or as a soil surface spray, or incorporated into a soil mix for subsequent seeding or transplanting of ornamentals. Mefenoxam MC may be applied as a foliar spray on azaleas. Within a rate range given for a specific group of ornamentals, use the lower rate for the shortest interval listed and the higher rate for the longest interval. Under severe disease conditions, use the highest rate and the shortest interval.

For drench applications, use enough of the specified Mefenoxam MC: water solution to wet the root zone of plants. In general, 1 pt./sq. ft. of this solution is sufficient for ornamentals growing in containers with 4 inches of growth media. Containers with growth media depth greater than 4 inches generally require 1 1/2 - 2 pts./sq. ft. of the solution. If soil surface applications are made, irrigate with at least 1/2 inch of water if rainfall does not occur within 7 days.

NOTICE TO USER: Due to the large number of species and varieties of ornamentals and nursery plants, it is impossible to test every one for tolerance to Mefenoxam MC. Neither the manufacturer nor the seller has determined whether or not Mefenoxam MC can be used safely on ornamental and nursery plants not specified on this label. The professional user should determine if Mefenoxam MC can be used safely prior to commercial use. In a small area, test the recommended rates for a particular group of unlabeled plants, i.e., bedding plants, foliage, etc., for phytotoxicity prior to widespread use.

# **Foliage Plants**

Aglaonema Aphelandra Dieffenbachia Peperomia Philodendron\* Pothos Schefflera Sedum Sempervivum Zygocactus **DRENCH**: Mix 0.1-0.6 fl. oz. with 100 gals. of water. Apply 1 pt. solution/sq. ft. For growth media depth greater than 4 inches, apply 1 1/2-2 pts. solution/sq. ft. Repeat applications at 2- to 3-month intervals if necessary.

\*On Philodendron, use 0.2-1 fl. oz./100 gals.

Precaution: To minimize the potential for injury to Pothos, do not use more than 0.38 fl. oz./100 gals. and do not apply more frequently than once every 3 months.

**SOIL MIX**: Thoroughly mix 0.05-0.25 fl. oz. with each cu. yd. of soil mixture.

**SOIL SURFACE SPRAY:** Apply 0.2-1 fl. oz./1,000 sq. ft. to the soil surface in a broadcast or banded spray in sufficient water to obtain thorough coverage of the plant root zone. After application, irrigate with a minimum of 1/2 inch of water if rainfall does not occur within 7 days.

# **Bedding Plants**

Ageratum
Algerian ivy
Artemisia
Aster
Begonia
Caladium
Carnation
Chrysanthemum
Coleus

Daisy
English ivy
Foxglove
Gaillardia
Geranium
Impatiens
Marigold
Pansy

Phlox Pinks Primrose Prostrate Rosemary

Petunia

Salvia Snapdragon Verbena Vinca Zinnia **DRENCH At Seeding** (Soil 2-3 inches deep): Mix 0.05-0.25 fl. oz. with 100 gals. of water and apply 1 pt. solution/sq. ft.

DRENCH At Transplanting (Soil 2-3 inches deep): Mix 0.2-1 fl. oz. with 100 gals. of water and apply 1 pt. solution/sq. ft. For growth media depth greater than 4 inches, apply 1 1/2-2 pts. solution/sq. ft. Repeat applications at 1- to 2-month intervals if necessary. Do not apply rates of 0.75-1 fl. oz./100 gals. more often than once every 6 weeks.

# **SOIL MIX At Seeding and At Transplanting:**

Thoroughly mix 0.03-0.13 fl. oz. with each cu. yd. of soil mixture.

SOIL SURFACE SPRAY: Apply 0.2-1 fl. oz./1,000 sq. ft. to the soil surface in a broadcast or banded spray in sufficient water to obtain thorough coverage of the plant root zone. After application, irrigate with a minimum of 1/2 inch of water if rainfall does not occur within 7 days.

#### Flowers

African violet
Anthurium
Baby's breath
Carnation
Chrysanthemum
Columbine
Delphinium
Easter lily
Geranium
Gloxinia
Poinsettia
Rose

**DRENCH**: Mix 0.2-1 fl, oz. with 100 gals. of water and apply 1 pt. solution/sq. ft. For growth media depth greater than 4 inches, apply 1 1/2-2 pts. solution/sq. ft. Repeat applications at 1- to 2-month intervals if necessary. Do not apply rates of 0.75-1 fl. oz./100 gals. more often than every 6 weeks.

Precaution: Do not apply more than 0.5 fl. oz./100 gals. water to Easter lily and only make one at-planting application.

**SOIL SURFACE SPRAY:** Apply 0.2-1 fl. oz./1,000 sq. ft. to the soil surface in a broadcast or banded spray in sufficient water to obtain thorough coverage of the plant root zone. After application, irrigate with a minimum of 1/2 inch of water if rainfall does not occur within 7 days.

#### **Azaleas**

**DRENCH:** Phytophthora root and crown rot - Mix 0.25-1.25 fl. oz. with 100 gals. of water and apply 1 pt. with 100 gals. of water and apply 1 pt. solution/sq. ft. For growth media depth greater than 4 inches, apply 1 1/2-2 pts. solution/sq. ft. Repeat applications at 2- to 4-month intervals if necessary.

**FOLIAR SPRAY:** Phytophthora shoot blight - Mix at 0.25-1.25 fl. oz. with 100 gals. of water. Spray to runoff. Repeat at 2- to 3-month intervals if necessary.

**SOIL SURFACE SPRAY:** Apply 0.5-2.50 fl. oz./1,000 sq. ft. to the soil surface in a broadcast or banded spray in sufficient water to obtain thorough coverage of the plant root zone. After application, irrigate with a minimum of 1/2 inch of water if rainfall does not occur within 7 days.

Precautions: (1) To minimize the potential for injury to azaleas, do not apply repeat soil applications of 1.25 fl. oz./100 gals. closer than every 3 months, and do not exceed a total of 2 fl. oz. in 6 months. (2) Use the lower rate for "Coral Bell" variety.

# Woody Ornamentals Other Than Azalea

Aucuba japonica Arborvitae Boxwood Ceanothus Cotoneaster Dogwood Ficus "Halls" Honeysuckle llex Juniperus spp. Photinia Pieris japonica Pinus spp. Pittosporum Rhododendron White cedar White pine

Yew

DRENCH: Mix 0.4-2 fl. oz. with 100 gals. of water and apply 1 pt. solution/sq. ft. For growth media depth greater than 4 inches, apply 1 1/2-2 pts. solution/sq. ft. Repeat applications at 2- to 3-month intervals if necessary. Do not apply rates of 1.6 fl. oz./100 gals. more often than every 10 weeks.

**SOIL SURFACE SPRAY:** Apply 0.5-2.5 fl. oz./1,000 sq. ft. to the soil surface in a broadcast or banded spray in sufficient water to obtain thorough coverage of the plant root zone. After application, irrigate with a minimum of 1/2 inch of water if rainfall does not occur within 7 days.

# Interiorscape and Individual Plant Use

In situations where water volumes used are much less than 100 gals, and the area treated is small, the following table provides the Mefenoxam MC rates to make small quantities of solution. Refer to the plant type for the correct fl. oz. of product to use when utilizing this table.

	Amount of Mefenoxam MC to add to water to make the following quantities			
Rate of Mefenoxam MC (fl. oz.)	1 gal.	5 gals.	10 gals.	25 gals.
0.25	4 drops	18 drops	37 drops/ 0.75 ml	1.9 ml/ 3/8 tsp.
0.5	7 drops	37 drops/ 0.75 ml	75 drops 1.5 ml	3.8 ml/ 3/4 tsp.
1.0	15 drops	75 drops/ 1.5 ml	3.0 ml/ 1/2 tsp.	7.5 ml/ 1.5 tsp./ 1/2 Tbsp.
1.5	22 drops	3.0 ml/ 1/2 tsp.	4.5 ml/ 1 tsp.	11.3 ml/ 2.25 tsp. 3/4 Tbsp.
2.0	30 drops	4.5 ml/ 1 tsp.	6.0 ml/ 1.5 tsp.	15.0 ml/ 3 tsp./ 1 Tbsp.

Apply enough solution to wet the root area of the plants.

# Citrus in Nurseries and Landscape Plantings (Nonbearing)

Use Mefenoxam MC on nonbearing citrus for control of citrus foot rot, root rot, and trunk canker caused by *Phytophthora* spp. Apply to the soil as a drench or as a spray in a banded application.

Make the first application of Mefenoxam MC at the time of planting. Make repeat applications at 3-month intervals during the period when trees are actively growing.

**Soil Drench**: Mix 0.6-3 fl. oz./100 gals. of water and apply as a drench over the row at the rate of 100-250 gals./1,000 ft. of row. The width of the drench treatment should be wide enough to cover the root systems of the plants.

**Soil Surface Spray:** Apply 0.2-1 gal./A of treated soil in a broadcast or banded surface spray to seedbeds, liners, or bedded stock in sufficient water to obtain uniform coverage. If applications are banded, the treated area should be wide enough to cover the root systems of the plants. Follow with a 1/2 inch irrigation.

Calculate the amount of Mefenoxam MC needed for a banded treatment by using the formula at the end of the **General Information** section of this label.

**Note**: Do not use in greenhouse citrus nursery stock intended for commercial fruit production.

# Conifers in Nurseries and Plantations (Including Christmas Trees)

Mefenoxam MC provides control of Phytophthora root rot of conifers.

#### **Conifers in Nurseries**

Seedbeds and Plug-Plantings	Apply 0.25-1.25 pts. Mefenoxam MC in at least 50 gals. of water per acre in the spring and again in the fall.
2-0 Transplants	Apply 0.5-2.5 pts. Mefenoxam MC in at least 50 gals. of water per acre in the spring and again in the fall.

#### **Conifers in Plantations**

Use of Mefenoxam MC will aid in the control of Phytophthora root rot when used in conjunction with good cultural practices. The use of Mefenoxam MC will not overcome poor management practices such as planting on sites that are prone to flooding or are poorly drained. Mefenoxam MC fungicide will not revitalize trees showing moderate to severe disease symptoms.

Apply 0.25-1.25 gals. of Mefenoxam MC per acre in a minimum of 50 gals. of water as a directed soil spray. Do not apply as a foliar spray. Applications should be made in early spring before growth starts and in the fall before the ground freezes. Calculate the amount of Mefenoxam MC needed for a banded treatment by using the formula at the end of the **General Information** section of the label.

For best results, apply 1/2-1 inch of water after application if rain is not expected within 3 days.

# **Deciduous Fruits and Nuts in Nurseries (Nonbearing)**

Mefenoxam MC provides control of Pythium root rot and Phytophthora root crown, and collar rot of nonbearing deciduous fruits and nuts.

Apply 0.6-3 fl. oz./1,000 sq. ft. in sufficient water to obtain thorough coverage of the soil under the canopy of the trees. Treat sufficient surface area in nurseries to cover the root zone of the plants. Additional applications may be made as necessary at 3-month intervals during the growing season.

**Notes:** (1) Do not apply to trees that will bear harvestable fruit within 12 months of the last application, or possible illegal residues may result. (2) Do not apply more than 8.8 fl. oz./1,000 sq. ft. (3 gals./A) of Mefenoxam MC per year.

#### Turf

Mefenoxam MC controls Pythium blight and Pythium damping-off in turf, yellow tuft (downy mildew) in bluegrass, and downy mildew in St. Augustinegrass. Within the rate range given for turf, use the lower rate for the shortest interval listed and the higher rate for the longest interval. Under severe disease conditions, use the highest rate and shortest interval.

Established Turf Pythium Blight Yellow Tuft Downy mildew	Apply as a preventative treatment at 0.2-1 fl. oz. in 1-5 gals. of water per 1,000 sq. ft. Re-treat at 10-21 day intervals. During periods of prolonged conditions favorable for disease development, use 0.5-1 fl. oz. on a 14-day schedule.
Newly Seeded Areas Pythium Damping-off Pythium Blight	Apply 0.2-1 fl. oz. in 1-5 gals. of water per 1,000 sq. ft. immediately after seeding. Re-treat at 7-14 day intervals if conditions remain favorable for disease.
Yellow Tuft Downy Mildew	Note: For long-term control of Pythium in areas when using mefenoxam treated seed, make an application of Mefenoxam MC 7-10 days after seeding.

**Note**: For control of other diseases of turf, use Banner alone or in a tank mix combination with Mefenoxam MC. Refer to the Banner label for rates, precautions, restrictions, etc.

Precautions: To minimize the potential for insensitivity, (1) Make no more than 3 applications per season of any product in which mefenoxam is the only active ingredient, and (2) Apply an alternate EPA-registered fungicide for Pythium control at least once during the season.

# **Rotational Crops**

Do not plant any crop which is not registered for use with mefenoxam in mefenoxam-treated soil for a period of 12 months.

# Storage and Disposal

# **Storage**

Do not use, pour, spill, or store near heat or open flame.

#### Pesticide Disposal

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Wastes resulting from the use of this product are toxic. Improper disposal of unused pesticide, spray mixture, or rinsate is a violation of federal law. Pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to federal, state, or local procedures. For guidance in proper disposal methods, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office.

# Container Disposal (One Quart, One Gallon)

Do not reuse empty container. Triple rinse (or equivalent), puncture and dispose of in a sanitary landfill, or by incineration, or by open burning, if allowed by state and local authorities. Keep out of smoke from burning container.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

# Container Refilling and Disposal (Fifteen Gallons)

This is a refillable container. If the container is to be refilled, do not rinse with any material or introduce any pesticide other than Mefenoxam MC. Reseal and return the container to an authorized Ciba-Geigy refilling facility. If the container is not to be refilled, triple rinse (or equivalent) and offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or by incineration, or by open burning, if allowed by state and local authorities. If burned, keep out of smoke.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

# **Precautionary Statements**

#### Hazards to Humans and Domestic Animals

#### CAUTION

Causes eye irritation. Harmful if swallowed or absorbed through skin. Avoid contact with eyes, skin, or clothing.

#### Statement of Practical Treatment

If in eyes: Flush with plenty of water. Get medical attention if irritation persists.

If on skin: Wash with plenty of soap and water. Get medical attention.

If swallowed: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

**Notes to Physician:** If ingested, induce emesis or lavage stomach. Treat symptomatically.

# **Personal Protective Equipment:**

# Applicators and other handlers must wear:

- · Long-sleeved shirt and long pants
- Waterproof gloves
- 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 Statements**

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

# **User Safety Recommendations**

#### **Users should:**

- 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**

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 apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

#### **Physical or Chemical Hazards**

Do not use, pour, spill, or store near heat or open flame.

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U.S. Patent Nos. 4,079,062; 4,022,611; 3,932,629; 3,867,396

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Ciba Crop Protection
Turf and Ornamental Products
Ciba-Geigy Corporation
Greensboro, North Carolina 2741-9

CGA	(Gallon)	Product ID:
CGA	(Quart)	Product ID:
ÇGA	(15 Gallon)	Product ID:

24/25

# (Back Cover) (For 1 Quart, 1 Gallon)

#### Mefenoxam MC

#### **FUNGICIDE**

For the control of certain diseases in conifers, nonbearing citrus, nonbearing deciduous fruits and nuts, omamentals, and turf

Active Ingredient:

Metenoxam: (R )-2-[(2,6-dimethylphenyl)-

methoxyacetylamino]-propionic acid

See directions for use in attached booklet.

#### **AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section information about this standard.

EPA Reg. No. 100-

EPA Est. 100-AL-1

KEEP OUT OF REACH OF CHILDREN.

CAUTION

**Precautionary Statements** 

Hazards to Humans and Domestic Animals

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#### **Environmental Hazards**

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# Physical or Chemical Hazards

Do not use, pour, spill, or store near heat or open flame.

**CHEMIGATION**: See attached booklet for use directions for chemigation. Do not apply this product through any irrigation systems unless the labeling on chemigation is followed.

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Ciba Crop Protection
Turf and Ornamental Products
Ciba-Geigy Corporation
Greensboro, North Carolina 2741-9

CGA

(1 Gallon)

CGA

(1 Quart)

Product ID:

Product ID:

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