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1812-377

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August 3, 1995

ACCEPTED

AUG 11 1995

UNDER THE FEDERAL INSECTICIDE
FUNGICIDE AND RODENTICIDE ACT
FOR ECONOMIC POISON REGISTERED
UNDER NO. 1812-377

COPPER FUNGICIDE 4E

EMULSIFIABLE LIQUID COPPER FUNGICIDE

ACTIVE INGREDIENTS:

Copper salts of fatty and rosin acids..... 48.0%

INERT INGREDIENTS 52.0%

TOTAL 100.0%

(Metallic copper equivalent 4.0%)

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Do not induce vomiting. Call a physician immediately.

IF IN EYES: Wash eyes with water and see a physician.

IF ON SKIN: Wash with soap and water. Get medical attention if irritation persists.

See side/back for additional "Precautionary Statements."

GRIFFIN CORPORATION
VALDOSTA, GA. 31601

EPA REG. NO. 1812-377
EPA EST. NO. 8901 TX-1

NET CONTENTS: _____ GALS. _____ LITERS

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**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS (AND DOMESTIC ANIMALS)
CAUTION**

Harmful if swallowed. Contains a petroleum solvent.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- 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 CONTROLS STATEMENT

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

USER SAFETY RECOMMENDATIONS

Users should:

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

ENVIRONMENTAL HAZARDS

This product is toxic to fish. 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 disposing of equipment washwaters.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flames.

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 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls.
- Waterproof gloves
- Shoes plus socks.
- Protective eyewear.

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 area without protective clothing until sprays have dried.

STORAGE AND DISPOSAL

STORAGE: Store in a secure place, away from fire or open flame. Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Keep container closed and reseal after use. Product is not damaged by freezing, but preferably store at temperatures above 32° F. If spilled, use absorbent materials and dispose of in approved landfill.

PESTICIDE DISPOSAL: Do not contaminate water, food, or feed by storage or disposal. Pesticide wastes are toxic. 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 EPA Regional Office for guidance.

CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities, or plastic containers by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Read and follow all applicable directions and precautions on this label or label of other products before mixing with Copper Fungicide 4E.

Copper Fungicide 4E can be applied up to day of harvest. When tank-mixed with other products, do not apply closer to harvest than is permitted or stated on their labels.

Pour Copper Fungicide 4E into spray tank at least 1/2 filled with water with adequate agitation. When mixed with other products proven or known to be compatible, wettable powders should be added first, followed in order by flowables, and then emulsifiable concentrates such as Copper Fungicide 4E. Do not apply this product through any type of irrigation system.

Consult State Agricultural Experiment Stations or State Agricultural Extension Service for additional information as the timing needs may vary with local conditions.

Copper Fungicide 4E is compatible with many organic insecticides and fungicides in tank mixes. Do not mix Copper Fungicide 4E with oil when applied to citrus. Do not mix Copper Fungicide 4E with chelated or liquid fertilizers. Use product with other fungicides and insecticides with caution. Observe all cautions and limitations on all products used in mixtures.

2 tsp*/gal = 1 qt./100 gals.

*tsp = teaspoon

CROP USE DIRECTIONS

FRUITS AND NUTS

AVOCADOS: Anthracnose, Blotch (*Cercospora leafspot*) - Apply 4 tsp/gal. when bloom buds begin to swell. Repeat monthly until September.

BERRIES (BLACKBERRIES, BOYSENBERRIES, LOGANBERRIES, RASPBERRIES: Anthracnose, Leaf and Cane Spots, and Yellow Rust - Apply 4 to 6 tsp/gal. when leaf buds begin to open. Repeat when flower buds show white and continue at 10 to 14 days until harvest. Also make a post-harvest spray after pruning but before fall rains using 8 tablespoons/gallon.

CHERRIES (SOUR): Bacterial Canker (*Pseudomonas syringae*) and Leaf Spot - Apply 3 tsp/gal. in spring as buds begin to swell. Repeat at bud burst and weekly thereafter as needed for up to 6 sprays. In fall apply a spray at both 10 and 80% leaf fall. **CAUTION:** Sprays after leaf emergence may cause some leaf defoliation. For Brown Rot Blossom Blight - Apply 3 tablespoons/gal. at popcorn bud, full bloom and at petal fall. During wet weather additional bloom sprays may be necessary.

CITRUS: Melanose, Red Algae - Apply 4 tsp/gal. (2 quarts/100 gals.) Apply 1 to 3 weeks after petal fall and repeat four weeks later. Do not apply with any oil on any citrus as some defoliation may occur. Citrus includes grapefruit, oranges, lemons, tangerines, and similar members of the citrus group.

GRAPES: Downy and Powdery Mildew - Apply 2 tsp/gal. (1 quart/100 gals.). Begin spray when new growth is 1/2 inch long and repeat every 7 to 10 days throughout growing season. Also suppresses and aids in control of black rot. Note: Do not mix with lime. Certain varieties and hybrids may be slightly sensitive to copper sprays resulting in marginal leaf burn.

MANGOES: Anthracnose - Apply 6 tsp/gal. weekly beginning when panicles are two inches long until fruit are set; then continue monthly through September.

PEACHES, NECTARINES: Leaf Curl, Shot Hole, Blossom Brown Rot - Apply 7 to 10 tsp/gal. (3-1/2 to 5 qts/100 gals.) at leaf fall and repeat in late dormant up to bud swell and at pink bud. Do not apply after pink bud.

STRAWBERRIES: Leaf Spot, Scorch - Apply 3 to 4 tsp/gal. beginning when new growth starts and repeat at 7 to 10 days until harvest.

WALNUTS: Bacterial Blight - Apply 4 tsp/gal. beginning when leaflets start to unfold and before 1% pistillate blooms. Repeat weekly as needed, especially during wet rainy periods.

VEGETABLES

BEANS (GREEN, SNAP, AND DRY COLORED AND NAVY BEANS): Bacterial Blights - Apply 4 tsp/gal. beginning at trifoliolate and continue at 7 to 10 day intervals to harvest. During wet weather use 7 day intervals.

BROCCOLI, BRUSSELS SPROUTS, CAULIFLOWER, CABBAGE: Downy Mildew and Alternaria Blight - Use 1 tsp/gal. Begin application when disease is expected and repeat at 7 day intervals as needed. CAUTION: A slight reddening of the older leaves may occur occasionally, especially in late fall. Do not add additional spreader-sticker to spray. Do not spray when plants are under environmental stress conditions.

POTATOES: Late Blight - Apply 7 tsp/gal. beginning treatment when weather conditions favor late blight and repeat every 7 days up to day of harvest.

ADDITIONAL VEGETABLE USES

For the following crops apply 4 to 6 tsp/gal. beginning when disease is expected or first symptoms appear. Repeat at 7 to 10 day intervals as needed or up to day of harvest. Use shorter intervals and higher rates in wet weather periods.

<u>CROP</u>	<u>DISEASE</u>
Beets (Red Table)	Cercospora Leaf Spot
Carrots	Early and Late Blights, Leafspots
Celery	Bacterial Blight, Early Blight
Cucurbits (Cucumbers, Cantaloupe, Muskmelon, Squash, Pumpkins, and Watermelons;	Downy Mildew, Powdery Mildew, Alternaria Blight, Scab
Cucumbers*	Angular Leaf Spot
Onions	Downy Mildew, Gray Mold Neck Rot, Bacterial Soft Rot
Peppers*	Bacterial Spot, Cercospora Leaf Spot

<u>CROP</u>	<u>DISEASE</u>
Peanuts	Leafspots (early and late) and Web Blotch
Peas	Powdery Mildew, Bacterial Blight
Potatoes	Early Blight
Tomatoes *	Bacterial Spot and Speck, Early Blight, Septoria Leafspots, Anthracnose - Where Early Blight or Anthracnose is expected to be heavy, make a tank mix with approved organic fungicides used at labeled rates.

* For control of disease on these crops in greenhouses, fields, gardens and plant beds.

ORNAMENTALS

For control of diseases on ornamentals in greenhouses, fields, gardens, nurseries, or plant beds.

For the following crops apply 4 to 6 tsp/gal. (2 qts/100 gals.) beginning when disease is expected or first symptoms appear. Repeat every 7 to 10 days as needed to control disease. Use higher rates and shorter intervals during periods of frequent rain or when several disease conditions are present.

<u>CROP</u>	<u>DISEASE CONTROLLED</u>
Azaleas *	Cercospora Leafspot, Botrytis Blight, Leaf Gall, Phytophthora Dieback, and Powdery Mildew
Begonia	Xanthomonas Leaf Spot, Anthracnose, Powdery Mildew
Camellia	Phytophthora Dieback
Chrysanthemums, Gardenia, and Foliage Plants including Philodendron *	Bacterial Blight
Cotoneaster	Botrytis Blight
Hydrangeas	Leafspots, Powdery Mildew
Ixora, Magnolias, and Palm Trees	Leafspots

CROP

DISEASE CONTROLLED

Iris *	Scab
Ivy	Bacterial Leafspot, Xanthomonas Leafspot
Pachysandra	Volutella Blight
Pyracantha	Fire Blight and Scab - Begin spray during bloom period and repeat at 3 to 4 day intervals. After bloom period continue on 7 to 10 day schedule.
Roses *	Powdery Mildew - Suppresses and aids in control of black spot.

* Discoloration of blooms may occur on certain varieties or colors of these plants. To avoid problem, do not spray just before or during flower period.

PINE (AUSTRIAN, PONDEROSA, MUGO, SCOT): Dothistroma Needle Blight and Diplodia Tip Blight - Mix 4 teaspoons per gallon water (2 qts/100 gals.) and apply to point of spray run-off thoroughly wetting needles. For Dothistroma make first application as new needles begin to emerge from needle sheaths (about mid May in eastern Nebraska) and repeat 3 to 4 weeks later. For Christmas trees or in continued wet seasons, repeat monthly through September. For Diplodia Tip Blight make first application when shoot buds open (about third week in April in eastern Nebraska) and repeat at weekly intervals until needles break through needle sheaths.

JUNIPERS: Cercospora Needle Blight - Mix 4 tsp/gal. water (2 qts/100 gals.) Make first spray as new growth begins and repeat monthly making at least 2 or 3 sprays or through September if frequent rains occur.

MAPLES, OAKS AND SYCAMORE: Anthracnose, Leafspots - Mix 4 tsp/gal. and make first application just before buds begin to swell and repeat at 7 day intervals as needed. Make at least 3 sprays.

CEDAR: Cedar Apple Rust - Apply 4 tsp/gal. (2 qts/100 gals.) weekly in July and August.

NOTICE TO BUYER: Seller warrants that this product conforms to the chemical description on this label and is reasonably fit for purposes stated on this label only when used in accordance with the directions under normal use conditions. This warranty does not extend to use of this product contrary to label directions, or under abnormal use conditions, or under conditions not reasonably foreseeable to seller; buyer assumes all risk of any such use. Seller makes no other warranties, either expressed or implied.