

PM 21

45002-8

Page 19 12

Please read instructions on reverse before completing form.

Form Approved, OMB No. 2070-0060. Approval expires 05-31-88



United States  
Environmental Protection Agency  
Washington, DC 20460

Registration  
 Amendment  
 Other

OPP Identifier Number  
247618

Application for Pesticide - Section I

|   |   |  |
|---|---|--|
| 1. Company/Product Number<br>45002-8  | 2. EPA Product Manager<br>Theresa A. Stowe  | 3. Proposed Classification<br><input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted |
| 4. Company/Product (Name)<br>Cuproquim Basic Copper 53  | PM#<br>21   |  |
| 5. Name and Address of Applicant (Include ZIP Code)<br>Cuproquim Corporation<br>P.O. Box 171357<br>Memphis, TN 38187<br><input type="checkbox"/> Check if this is a new address | 6. Expedited Review. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:<br>EPA Reg. No. _____<br>Product Name _____ |  |

Section - II

|  |  |
|--|--|
| <input type="checkbox"/> Amendment - Explain below.                            | <input type="checkbox"/> Final printed labels in response to Agency letter dated _____ |
| <input type="checkbox"/> Resubmission in response to Agency letter dated _____ | <input type="checkbox"/> "Me Too" Application.   |
| <input checked="" type="checkbox"/> Notification - Explain below.              | <input type="checkbox"/> Other - Explain below.  |

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Notification of change in chemigation advisory statement.

NOTIFICATION

APR 24 1996

Section - III

|  |   |  |  |
|--|---|--|--|
| 1. Material This Product Will Be Packaged In:  |   |  |  |
| Child-Resistant Packaging<br><input type="checkbox"/> Yes*<br><input type="checkbox"/> No  | Unit Packaging<br><input type="checkbox"/> Yes<br><input type="checkbox"/> No | Water Soluble Packaging<br><input type="checkbox"/> Yes<br><input type="checkbox"/> No | 2. Type of Container<br><input type="checkbox"/> Metal<br><input type="checkbox"/> Plastic<br><input type="checkbox"/> Glass<br><input type="checkbox"/> Paper<br><input type="checkbox"/> Other (Specify) _____ |
| * Certification must be submitted  |   | If "Yes" Unit Packaging wgt. No. per container   | If "Yes" Package wgt. No. per container  |
| 3. Location of Net Contents Information<br><input type="checkbox"/> Label <input type="checkbox"/> Container   |   | 4. Size(s) Retail Container  | 5. Location of Label Directions<br><input type="checkbox"/> On Label<br><input type="checkbox"/> On Labeling accompanying product  |
| 6. Manner in Which Label is Affixed to Product<br><input type="checkbox"/> Lithograph<br><input type="checkbox"/> Paper glued<br><input type="checkbox"/> Stenciled <input type="checkbox"/> Other _____ |   |  |  |

Section - IV

|   |                                   |   |
|---|-----------------------------------|---|
| 1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application)  |                                   |   |
| Name<br>Alice Walker, Ph.D.   | Title<br>Regulatory Consultant    | Telephone No. (Include Area Code)<br>601-562-5995 |
| Certification<br>I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. |                                   | 6. Date Application Received<br>(Stamped)         |
| 2. Signature<br><i>Alice Walker</i>   | 3. Title<br>Regulatory Consultant |   |
| 4. Typed Name<br>Alice Walker, Ph.D.  | 5. Date<br>March 14, 1996         |   |

2712

CUPROQUIM  
**BASIC COPPER 53**  
BASIC COPPER SULFATE

|                        |       |        |
|------------------------|-------|--------|
| ACTIVE INGREDIENT:     |       |        |
| Basic Copper Sulfate * | ..... | 98.0%  |
| INERT INGREDIENTS:     | ..... | 2.0%   |
|                        | TOTAL | 100.0% |

(Metallic copper equivalent 53%)

\*CAS No. 1344-73-6

Apply this product to crops to control plant diseases as directed on the back panel of this label.

**KEEP OUT OF REACH OF CHILDREN**

**WARNING - AVISO**

HARMFUL IF SWALLOWED. DO NOT SWALLOW OR INHALE.

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail).

**STATEMENT OF PRACTICAL TREATMENT**

- If in Eyes: Flush with plenty of water. Get medical attention.
- If Swallowed: Call a physician or Poison Control Center. Drink one or two glasses of water and induce vomiting by touching the back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person. Get medical attention.
- If on Skin: Wash with plenty of soap and water. Get medical attention.

See side/back panel for additional  
Precautionary Statements.

Manufactured for:  
**CUPROQUIM CORPORATION**  
P. O. Box 171357  
Memphis, TN 38187  
**PRODUCT OF MEXICO**

EPA Reg. No. 45002-8

EPA Est. No. 45002-MX-2

**NET CONTENTS: 50 LB/22.68 KG**

## PRECAUTIONARY STATEMENTS

### WARNING

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Causes substantial but temporary eye injury. Harmful if absorbed through skin or inhaled. May cause skin sensitization reactions in certain individuals. Avoid contact with skin, eyes, or clothing. Avoid breathing dust.

#### PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear long-sleeved shirt and long pants, shoes plus socks, protective eyewear, chemical-resistant headgear for overhead exposure, and dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C).

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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.

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 toilet. Remove personal protective equipment 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 pesticide 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 disposing of equipment washwaters. Drift and runoff from treated areas may be hazardous to fish and aquatic organisms in adjacent aquatic sites. Do not contaminate water by cleaning of equipment or disposal of wastes.

#### 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 24 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, and chemical-resistant headgear for overhead exposure.

### STORAGE AND DISPOSAL

**DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISPOSAL.**

**STORAGE:** Store only in original container. Store in a cool, dry, well ventilated place. When opening, closing or handling open packages, or pouring product, wear goggles to prevent dusting into eyes. Store pesticides separately to prevent cross contamination of other pesticides, fertilizer, food and feed.

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

**CONTAINER DISPOSAL:** Do not reuse this container. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

### CHEMIGATION

#### GENERAL CHEMIGATION INSTRUCTIONS

Apply this product only through one or more of the following types of systems: sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation system(s). Do not apply this product through any other type of irrigation system. **PRECAUTION:** Corrosion of aluminum and carbon steel irrigation sprinkler systems may be experienced with the use of copper based fungicides. The end-user assumes all responsibility for use of this product through such systems. If the user elects to apply this product through such systems, it is essential that all application equipment containing this product be thoroughly flushed with clean water after each day's use. Continue to operate system with clean water until all product has cleared the last sprinkler head.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can 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 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 necessary adjustments should the need arise.

### **CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS**

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.

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 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, 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.

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.

### **SPRINKLER CHEMIGATION**

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 towards the injection pump. 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.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. 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.

To mix Basic Copper 53 for application, add it to the pesticide supply tank containing sufficient water to maintain a pumpable fluid for your equipment. Continuous agitation is required in the pesticide supply tank until it is completely empty. If other known compatible pesticides or products are tank-mixed, add this product and other wettable powders first to the water, followed by flowables, liquids, and lastly, emulsifiable products. This product can be mixed with other fungicides or insecticides. Basic Copper 53 may be used alone or in combination with other fungicides and insecticides with caution until experience with tank mix is developed. Observe all cautions and limitations stated on the label of product used in the tank mixtures. Tank mixes must observe the more restricted uses of the directions. In lateral move, end tow, side (wheel) roll, solid set, or hand move systems inject the product in the last 15 to 30 minutes to each set allowing sufficient time for all of the required pesticide to be applied by all sprinkler heads. In continuous moving systems, inject this product-water mixture continuously applying the labeled rate per acre for that crop. In continuous moving systems, best disease control results when water applications are low, but do not exceed one inch per acre.

#### **Directions for Dilution and Recommendations For Use**

**Mixing Sprays:** Fill the spray tank about 1/3 full of water and with the agitator running, add the required amount of Basic Copper 53. Keep the agitator running while adding the remaining water and any other products to the spray tank. Continue agitation until spraying is finished and tank has been emptied. When mixed with other products proven or known to be compatible, generally add wettable powders first, followed in order by flowables, followed by emulsifiable concentrates.

**Applying Spray Mixture:** On most crops, sprays can be applied with conventional dilute sprays in aerial application unless specifically prohibited on the label. Recommended use rates are generally stated in lbs of Basic Copper 53 per acre sprayed. When using each type of sprayer, follow that equipment manufacturer's recommendation, or that of the State Extension Service for the volume of spray water per acre on each crop. Mix the recommended lbs of Basic Copper 53 for each crop in sufficient spray water for thorough

coverage of the crop to be sprayed. The following spray volumes are general suggestions for use.

**For conventional dilute spray:** Apply spray to point of spray run-off. On vegetable and field crops this is usually 100 or more gallons per acre and 250 to about 1000 gallons per acre for fruit and nuts depending on tree type, size and foliage.

**For concentrate spray:** On vegetable and field crops, use 5 or more gallons spray per acre, and on fruit and nut trees use 25 or more gallons per acre.

**For aerial spray:** Use 3 to 15 gallons per acre. Note: Be sure aerial application spray concentration will not harm foliage.

Basic Copper 53 can be applied up to day of harvest.

### Fruit and Nut Crops

**Almonds: Shot hole** - Apply 12 to 20 lbs per acre. Apply higher rate as dormant spray (in California) and repeat for Shot hole as well as **Brown rot** suppression using lower rates; apply at pink bud to popcorn stages, again at full bloom and at petal fall if trees are not in leaf. Spraying tender foliage may cause leaf injury.

**Apples: Anthracnose** - Use 3 to 4 lbs per 100 gallons. For red varieties apply to foliage before or after harvest. For yellow varieties apply to foliage after harvest once every 2 to 3 years as necessary. **Brooks Spot** - Use 1 lb plus 2 lbs hydrated lime per 100 gallons. Apply in late cover sprays. **Bitter Rot, Black Spot, Blotch, Powdery Mildew** - Use 1/2 to 1 1/2 lbs plus 3 to 5 lbs hydrated lime per 100 gallons. Begin at petal fall and repeat through fourth cover spray. **Bullseye Rot** - Use 4 lbs with suitable spray oil per 100 gallons of water. Apply after harvest. **Fire Blight** - 1/3 to 1/2 lbs per 100 gallons; 2 lbs. per acre in concentrate sprays. Begin at 10% bloom. Repeat at 5-day intervals until late bloom is over. **Scab** - 1 to 1 1/4 lbs plus 2 to 2 1/2 lbs hydrated lime per 100 gallons; or 1/3 lb per 100 gallons. Apply at delayed dormant stage. **Sooty Blotch** - 1 1/4 lb plus 2 1/2 lbs hydrated lime per 100 gallons. NOTE: Apply in late cover sprays. Under conditions where copper injury is likely to occur, add additional lime. LIMIT: 32 lbs per acre.

**Apricots: Shot hole (Stigmina or Coryneum blight)** - Apply 14 to 20 lbs per acre. Apply as dormant spray (in California) for shot hole. For **Brown Rot** suppression in buds apply lower rate through swelling buds and popcorn stage. Do not spray trees in leaf. When bud blight is a problem, apply the maximum rate shown above after most of the leaves have fallen, usually in November and December, but ahead of fall rains. Spray may injure tender foliage.

**Avocados: Anthracnose, Blotch and Scab** - Apply 12 to 20 lbs per acre depending on tree size. Begin treatment when flower buds open and repeat at 4 week intervals. Do not apply later than 140 days after bloom. In Florida, addition of spreader-sticker such as Nu-Film 17 at its recommended rate may improve disease control.

**Berries (Blackberries, Boysenberries, Dewberries, Loganberries, Raspberries): Anthracnose** - Apply 4 to 5 lbs per acre. Begin spray when leaf buds begin to open. Repeat when flower buds show white and continue at 10 to 14 day intervals. **Leaf and Cane Spot and Yellow rust** - Spring sprays, use 4 to 5 lbs per acre and apply when leaf buds begin to open and repeat

when flower buds show white. Post-harvest spray after pruning, but before fall rains begin to fall, use 12 to 15 lbs per acre combined with a spreader-sticker.

**Cherries (all):** - To aid in control of **Bacterial gummosis and Canker (*Pseudomonas*) and Coryneum blight** - At late leaf-fall, apply 13 to 16 lbs per acre. In dilute sprays, mix 3 1/4 lbs per 100 gallons water and apply a maximum of 500 gallons per acre. Dormant spray for Coryneum blight: Apply 12 to 16 lbs (Northwestern states use 20-25 lbs) per acre, or use 5 lbs per 100 gallons dilute spray up to 500 gallons per acre.

**Cherries (Sour Only):** For leaf fall and dormant sprays also see **Cherries (all)** above: For **Brown rot and Blossom Blight** suppression (except Great Lakes states) apply 12 to 16 lbs per acre. Apply in red bud, popcorn, and late bloom stages. In Great Lakes area, for suppression of **Bacterial canker (*Pseudomonas syringae* PV. *mors. prunorum*)** and spring application for **Blossom blight, Leaf and Fruit Spots** - Use 3 lbs per acre, or 1 lb per 100 gallons dilute spray. Begin sprays at bud burst stage and apply at weekly intervals to late May. Later sprays may be phytotoxic causing some leaf defoliation. Basic Copper 53 may be tank-mixed with other effective fungicides for leaf spot and brown rot control. For **Leaf Spot** application in other than Great Lakes states, apply 10 to 16 lbs. per acre plus 10 to 16 lbs of hydrated lime; apply using lower rate at petal fall. Make two post-harvest sprays using higher rates. Do not apply non-dormant sprays to sweet cherries or the English Morelo variety as severe injury may result.

**Citrus: Melanose, Scab, Greasy Spot, Alternaria, Brown Spot and Pink Pitting of Grapefruit** - Use 7 to 15 lbs per 500 gallons by dilute spray or 10 to 26 lbs per acre by aerial or concentrate sprayers, but not less than 10 gallons spray per acre. (In Florida, use 2 lbs per 100 gallons (400 to 800 gallons per acre) or 8 to 16 lbs per acre by concentrate spray). For Scab suppression, make two applications; one just before trees begin to flush and repeat at 2/3 petal fall. For Melanose control, make application 1 to 3 weeks after petal fall. Repeat 2-4 weeks later if necessary. For Greasy spot and Pink pitting make a summer spray about July 15. For Alternaria, Brown spot on Dancy tangerine and other citrus, apply 7 to 15 lbs per 500 gallons in a dilute spray. Make first application in April and repeat two or three times at monthly intervals as needed. A spreader-sticker may be added. For **Brown Rot** use 1-3 lbs per 100 gallons (10 lbs per 500 gallons in Florida) plus a spreader-sticker. Apply at first indication of rain or first appearance of Brown rot. Repeat as needed to maintain protection during wet weather. For **Red alga** use 7.5 lbs per 500 gallons water as a dilute spray. Apply in the early summer and repeat in the late summer. For **Bacterial blast (*Pseudomonas*)** (northern California) - Mix 10 to 20 lbs per 500 gallons water and spray entire tree in October-November before the first rains. Do not apply to Mandarins until after fruit has been picked.

For "shot bag" mixes on citrus (Florida only), Basic Copper 53 may be mixed with dry foliar nutritionals (micronutrients) to create "Shot Bag" mixes to meet the various nutritional requirements of citrus and provide disease protection as described on this label. Basic Copper 53 per acre rates in these mixes must not exceed the maximum recommended labeled rates for disease control.

**Citrus: Bacterial canker** (except California) - For aid in suppressing or controlling bacterial canker on citrus, spray expanding foliage and young fruit less than 3 months old. On bearing trees, spray for melanose control 1 to 3 weeks after petal fall and repeat again with 2 more sprays at monthly intervals. On non-bearing trees, including greenhouse, nurseries, and young transplants, spray 7.5 lbs Basic Copper 53 in 500 gallons spraying to point of runoff applied monthly, or as needed to keep new foliage protected. Spray bearing trees with Basic



Copper 53 for melanose with 7.5 lbs Basic Copper 53 per 500 gallons water during the early spring flush. If bearing trees are not routinely sprayed for melanose but bacterial canker is a threat, follow the melanose spray program with the two monthly repeat sprays described above.

**Currants, Gooseberries: Anthracnose, Leaf Spot** - Apply 6 lbs per 100 gallons. Make 3 applications: full bloom, 2 weeks later, and after harvest.

**Filbert: Bacterial Blight** - Mix 6 lbs per 100 gallons water as a dilute spray and apply post-harvest before first heavy rain. If heavy fall rains occur, repeat spray after three-quarters of leaves have dropped.

**Grapes: Anthracnose, Downy Mildew and suppression of Black rot** - Mix 2 lbs per 100 gallons as a dilute spray or use 4 to 5 lbs per acre as a concentrate spray. Make first application when new growth is 1/2 inch long and repeat at 10 to 14 day intervals as needed. Some vinifera may be sensitive to copper sprays. Check with your State Extension Service.

**Mango: Anthracnose (except California)** - Apply 12 to 15 lbs per acre. Begin spray treatment when panicles are about 2 inches long. Repeat weekly until fruit set and then continue sprays monthly through September for a total of 5 to 12 applications, depending upon area.

**Olives: Leaf Spot (Peacock, Cyclonium)** - Use 5 to 6 lbs per 100 gallons; apply in the fall, usually in October or November. In concentrate sprays, apply 15-25 lbs per acre in not less than 40 gallons of water.

**Papaya: Anthracnose (except California)** - Mix 2 lbs per 100 gallons. Begin treatment before rains when disease is expected. Repeat at 10 to 14 day intervals during periods of heavy rainfall. Addition of a spreader-sticker is desirable.

**Peaches and Nectarines: Bacterial diseases (Peaches), Leaf curl, Shot hole, (peach blight, Coryneum blight), suppression of Brown rot, blossom and twig blight** - 16 to 25 lbs per acre applied as a dilute spray of 400 to 500 gallons per acre (4-5 lbs/100 gallons). For Bacterial diseases (peaches), Leaf curl and shot hole, apply as a dormant spray. For Brown rot suppression and Shot hole apply before bud swell and again in full pink bud to popcorn stage but before leaves emerge. Note: To control Leaf curl, application must be made before the foliage buds swell. For Blight and Leaf curl control, 15 to 20 lbs in 20 gallons of water per acre may be applied by aircraft during dormant period. To aid in control of Peach Bacterial diseases, apply 3 lbs per 100 gallons water during leaf fall.

**Pears: Fireblight** - Use 1/2 lb per 100 gallons of water; apply 400 gallons per acre to give 1 lb of copper per acre. Apply at 10% bloom and repeat at 5 to 7 day intervals during bloom. Do not use on D'Anjou, Comice, or Seckel varieties.

**Plums and Prunes: Black knot, Shot hole, suppression of Brown rot** - Mix 4 to 5 lbs plus sticker per 100 gallons water for dilute spray or use 16-25 lbs per acre. For Shot Hole, apply as dormant spray before heavy fall rains begin. For suppression of Brown rot, apply at early green bud and full bloom stages. For Black knot, mix 2 to 3 lbs per 100 gallons water plus 8 to 10 lbs hydrated lime and apply as a dilute spray at green tip stage, shuck shed and in two cover sprays if needed. Aerial sprays to control Shot hole, apply 16 to 20 lbs per acre in 20 gallons water during dormant season before buds swell. Overspraying with this concentration may injure the tender foliage of some Japanese plums.

**Walnuts: Bacterial blight** - Use 4 to 5 lbs per 100 gallons as a dilute spray or use 12 to 25 lbs per acre. Apply in early prebloom (1% pistillate, no catkin blooms showing) and the second when 10 to 20% pistillate (not catkins) blooms are showing. Repeat applications 3 to 4 times as needed.

**Strawberries: Downy Mildew, Leaf Spot** - Use 2 to 3 lbs per 100 gallons water. Apply after leaves form and repeat at 10 to 14 day intervals.

### Vegetable and Field Crops

**MIXING INSTRUCTIONS:** Mix recommended amounts (one acre basis) of Basic Copper 53 in sufficient water for good coverage. With dilute ground sprayer, generally apply 100 to 150 gallons per acre. With concentrate sprayers, generally apply 20 to 50 gallons per acre. With aerial sprayers, generally apply 3 to 10 gallons per acre. Consult the sprayer equipment manufacturer's recommended spray volumes per acre. (Note: Be certain aerial spray concentration will not harm foliage).

**Beans (green and dry): Angular leaf spot, Anthracnose, Bacterial blight, Downy and Powdery Mildew** - Use 2 - 4 lbs per acre. Begin spraying when plants are 5 inches tall or when disease first appears. Repeat at 5 to 10 day intervals as needed.

**Beets: Downy mildew, Leaf blights, and Leaf spots** - Use 2 to 4 lbs per acre. Apply when disease first appears and repeat at 7 to 10 day intervals as needed.

**Sugar Beets: Cercospora Leaf spot, Downy mildew** - Use 2 to 4 lbs per acre. Begin when disease first appears and repeat at 7 to 10 day intervals as needed.

**Broccoli, Brussels sprouts, Cabbage, Cauliflower: Downy mildew, Leaf spots** - Use 1 to 3 lbs per acre. Begin application when disease is expected and repeat at 7 to 10 day intervals as needed.

**Carrots: Downy mildew, Cercospora (early) and Alternaria (late) blights** - Use 2 to 4 lbs per acre. Begin when disease first appears and repeat at 7 to 10 day intervals as needed.

**Celery: Bacterial blight, Early and Late Blight** - Use 3 to 4 lbs per acre. Apply in plant bed or field when plants are 6 inches high or when disease first appears. Repeat at 5 to 14 day intervals as needed. May be tank-mixed with other fungicides approved for use on celery if compatible for broad spectrum disease control.

**Cucurbits (Cantaloupes, Cucumbers, Melons, Pumpkins, Squash): Angular leaf spot, Anthracnose, Alternaria leaf spot, Bacterial wilt, Downy and Powdery mildews, Gummy stem blight, Leaf Spot, Scab** - Use 2 lbs per acre. Begin full coverage foliar application when plants begin to vine or when disease is first expected, and repeat every 5 to 10 days as needed. Tank mixing with other fungicides approved for use on cucurbits, if compatible for broad spectrum disease control, may enhance disease control. Since the disease is likely to be more serious with high plant populations (40,000 plants or more per acre), spray high plant density every 3 to 4 days to protect fruit at all stages of development. Note: A ground application of 4 lbs per acre to the soil after planting and before emergence may help decrease infections of Angular leaf spot, Anthracnose, and Alternaria leaf spot. After emergence, follow above foliar application program.

**Eggplant: Alternaria blight, Anthracnose, Phomopsis** - Use 3 to 4 lbs per acre. Make application to plants in beds or after planted onto the field before disease appears. Repeat at 7 to 10 day intervals as needed.

**Endive, Escarole: Downy Mildew** - Apply 1 to 3 lbs per acre. Begin treatment when disease first appears and repeat every 7 to 10 days as needed to suppress disease.

**Lettuce: Downy Mildew** - Apply 1 to 3 lbs per acre. Begin treatment when disease first appears and every 7 to 10 days as needed to suppress disease.

**Onion: Purple blotch and Downy mildew** - Use 3 to 4 lbs per acre. Begin spray when plants are 4 to 6 inches high and repeat at 7 to 10 day intervals as needed. Addition of a spreader-sticker may be desirable.

**Peanuts: Early and Late Leaf Spot (Cercospora and Cercosporidium)** - Use 2 to 3 lbs per acre. Repeat at 10 to 14 day intervals as needed. NOTE: The addition of 2 lbs wettable, flowable, or WDG sulfur in a tank-mix may enhance leaf spot control. May be tank-mixed with other fungicides approved for use on peanuts if compatible.

**Peppers: Anthracnose, Bacterial spot, Early and Late blights, Cercospora leaf spot (Frogeye spot) Downy mildew** - Use 3 to 4 lbs per acre. Start sprays in seedbed or field before disease first appears and usually right after transplanting. Repeat every 7 to 10 days in field as needed and especially during fruiting stages.

**Potatoes: Early and Late blight** - Use 3 to 6 lbs per acre. Begin before the disease appears and repeat every 7 to 10 days as needed. Last application should be made with the vine kill spray.

**Spinach: Anthracnose, Cercospora leaf spot, Downy mildew, White rust** - Use 2 to 4 lbs per acre. Begin when disease first appears; repeat at 7 to 10 day intervals as needed.

**Tomatoes: Anthracnose, Bacterial spot and speck, Bacterial canker, Early and Late Blight, Leaf mold, Nailhead rust, Septoria, and Stemphylium leaf spot** - Use 2 to 4 lbs per acre. Begin making applications in seedbed or in the field before disease appears. Repeat at 7 to 10 day intervals as needed. NOTE: A tank-mix of Basic Copper 53 with Dithane M-45, Maneb, or Manzate 200 used at labeled rates improves Bacterial spot and speck control as well as a broad range of tomato diseases. Observe all precautions and label limitations of all products used in mixtures. For Bacterial speck control use 2 lbs Basic Copper 53 per acre tank-mixed with label rates of Dithane M-45 or Manzate 200. Addition of Chlorothalonil controls target leaf spot and may enhance control of other diseases.

**Oak Trees: Ball moss and Spanish moss** - Mix 6 lbs in 100 gallons of water. Apply in spring after heavy rain. Thoroughly wet tree and moss, applying about 1.5 gallons per foot of tree height.

**NOTICE TO BUYER**

Follow all directions carefully. Timing, methods of application, weather, 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,

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storage or handling of this material not in strict accordance with the directions given on this label.

- DITHANE & TRITON Reg. TMs of Rohm & Haas.
- MANZATE Reg. TM of E. I. DuPont de Nemours & Co.
- NU-FILM Reg. TM of Miller Chem & Fertz. Co.
- BRAVO Reg. TM of Fermenta ASA Corp.

