

Front Panel

100 Lbs (45.5 KILOS) NET WEIGHT.

CALCO

COPPER SULFATE

ACCEPTED  
with COMMENTS  
in EPA Letter Dated:

OCT 14 1982

ACTIVE INGREDIENT:

COPPER SULFATE PENTAHYDRATE

99.0%

INERT INGREDIENTS:

1.0%

100.0%

(COPPER AS METALLIC NOT LESS THAN)

25.0%

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.  
39295-3

Only For Sale To, Use and Storage By Service Personnel

Keep Out of Reach of Children

DANGER

Not for Medicinal Use

PRECAUTIONARY STATEMENTS

HAZARD TO HUMANS AND DOMESTIC ANIMALS-DANGER

Corrosive. Causes eye damage and irritation to the skin and mucous membrane. Fatal if swallowed. Do not get in eyes, on skin, or on clothing. Do not breathe dust or spray mist. Wear goggles or face shield and rubber gloves when handling.

STATEMENT OF PRACTICAL TREATMENT

First aid: In case of contact, immediately flush eyes and skin with plenty of water for at least 15 minutes. For eyes, call a physician. Remove and wash contaminated clothing before reuse. If swallowed, promptly drink a large quantity of milk, egg white or gelatin solution; if these are not available, drink large quantities of water and induce vomiting by sticking finger in back of throat. Call a physician immediately.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsion may be needed.

ENVIRONMENTAL HAZARD

This product is toxic to fish. Do not apply directly to water. Do not apply where run off is likely to occur. Do not contaminate water by cleaning of equipment or disposal of wastes.

Manufactured for Calabrian International  
Corporation, 26 Broadway  
New York, New York 10004

EPA Est. No.: 39295-PE-01  
EPA Reg. No.: 39295-3

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DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

STORAGE AND DISPOSAL

Prohibitions:

Do not contaminate water, food or feed by storage or disposal. Open burning and dumping is prohibited. Do not re-use empty container.

Storage:

Keep pesticide in original container. Do not put concentrate in food or drink container.

Pesticide Disposal:

Pesticide, spray mixture, or rinsate that cannot be used in accordance with label instructions must be disposed of according to Federal, State or Local procedures under the Resource Conservation and Recovery Act.

Container Disposal:

Rinse container liner with water and add rinsate to use solution or completely empty bag by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Dispose of polywoven bags in accordance with Federal, State or Local authorities for approved procedures according to the Resource Conservation and Recovery Act.

CALCO COPPER SULFATE

Algaecide

General Instructions

There are many factors to consider in controlling algae in impounded water, lakes, ponds, reservoirs, and flooded rice fields. These include water temperature and hardness, type of vegetation to be controlled, and the water flow. A small amount of Copper Sulfate can effectively control algae in water provided the algae growth is treated early in the development. If large amounts of algae is present, larger quantities of Copper Sulfate will be required. In moving water systems, control of algae is more difficult than in a body of stagnant water. In this situation, curtail the flow of water before treatment and hold dormant for approximately three days after treatment or until the vegetation has begun to die. Copper Sulfate works effectively in water temperatures above 60° F and in low hardness water. Mix Copper Sulfate in a glass or plastic container. If a metal container is used, make certain it is either painted, copper lined, or enameled since Copper Sulfate causes a chemical reaction with a galvanized container and the copper plates out on the container. To minimize the possibility of fish kill that could be caused by the loss of oxygen in the water from the dead algae, treat up to 1/3 or 1/2 of the water area at a time and wait two weeks between treatment. Begin the treatment along the shore

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and proceed outwards. Consult State fish and game agencies before applying. If treated water is to be used as a source of potable water, the metallic copper residual must not exceed 1 PPM (4 PPM Copper Sulfate Pentahydrate).

SPECIFIC INSTRUCTIONS:

Calculations for the Amount of Water Impounded and for the Amount of Copper Sulfate to be Used.

- A. Determine water volume as follows:
1. Obtain surface areas by measuring of regular shaped ponds or mapping of irregular ponds or by reference to previously recorded engineering data or maps.
  2. Calculate average depth by sounding in a regular pattern and taking the mean of these readings or by reference to previously obtained data.
  3. Multiply surface area in feet by average depth and feet to obtain cubic feet of water volume.
  4. Multiply surface area in acres by average depth and feet to obtain total acre-feet of water volume.
- B. Determine the number of acre feet of water to be treated. An acre foot of water is equal to one acre of water one foot deep which equals 326,000 gallons or 2,720,000 pounds. Multiply volume in cubic feet by 62.44 to obtain total pounds of water or multiply volume in acre feet by 2,720,000 to obtain pounds of water.
- C. Determine the Copper Sulfate Pentahydrate needed to achieve the recommended concentration, multiply the weight of water by the recommended concentration of Copper Sulfate. Since recommended concentrations are normally given in parts per million (ppm) it will first be necessary to convert the value in parts per million to decimal equivalent. For example, 2 ppm is the same as 0.000002 when used in this calculation. Therefore, to calculate the amount of Copper Sulfate Pentahydrate to treat 1 acre-foot of water with 2 ppm Copper Sulfate the calculation would be as follows:

$$0.000002 \times 2,720,000 + 5.44 \text{ lbs. Copper Sulfate Pentahydrate}$$

Please note that the rate of application of Copper Sulfate in still water should not exceed 2 ppm.

For Algae Control in impounded water, lakes, ponds, and reservoirs:  
 Determine the amount of CALCO Copper Sulfate to be added and dissolve the crystals in water and spray over the area to be treated. Apply the mixture as a uniform surface spray using a boat or a pressurized spraying device. Where the situation permits, Copper Sulfate may be applied under the water by boat by dragging burlap bags containing medium to large crystals of Copper Sulfate. Begin treatment along the shoreline and proceed outward and make certain even distribution is achieved by traveling in parallel lines about 20-100 feet apart.

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For control of Tadpole Shrimp in flooded rice fields:  
Apply CALCO Copper Sulfate at a rate of 10-15 pound per acre by mixing with 500 parts of water and applying as a uniform surface spray using boat and pressurized spraying device. Use at first indication of infestation after the field has been flooded to a depth of 6-8 inches.

Calculation of water flow in ditches, streams and irrigation systems:  
The amount of water flow in cubic feet per second is found by means of a weir or other measuring device. Determine the amount of CALCO Copper Sulfate required for treating ditches or streams and use a continuous application method, selecting proper equipment, to add the Copper Sulfate crystals as follows:

For Algae control in irrigation systems:  
Use a continuous feeder application method by applying 0.1 to 0.2 pounds of CALCO Copper Sulfate per cubic foot per second per hour. Begin continuous addition when water is first turned into the system and continue throughout the irrigation season.

For leafy and sago pond weed control in irrigation systems:  
Use a continuous feeder application system by applying 0.25-0.50 pounds of CALCO Copper Sulfate per cubic foot per second per hour. It is best to apply the Copper Sulfate crystals when the water is first turned into the system or ditch to be treated and to continue throughout the irrigation season.

SEWER TREATMENT-ROOT DESTROYER:

CALCO Copper Sulfate is an effective root destroyer. For a partial stoppage, add a minimum of two pounds of CALCO Copper Sulfate to the sewer or drain and flush toward the blockage with five gallons of water. Repeat every six months to prevent growth of new roots. For a complete stoppage of the sewer or drain, remove the blockage physically and repeat the preceding procedure.

WOOD TREATMENT (Green, peeled posts and fungus decay, rot):  
Prepare a solution of 18.0 pounds of Sodium Chromate in each 24 gallons of water to be used and a separate second solution of 18.0 pounds of Copper Sulfate in each 24 gallons of water to be used; soak the peeled green posts, butt end down first in the Copper Sulfate solution for three days, then butt end down in the Sodium Chromate solution for two days, and finally, turn the posts upside down in the Sodium Chromate solution for one additional day. Remove and rinse post with clear water.

BORDEAUX MIXTURE  
General Instructions

A Bordeaux formulation consists of three numbers such as 10-10-100. The first figure (10) represents the number of pound of Copper Sulfate Pentahydrate; the second figure (10) represents the pounds of

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hydrated lime; and, the third figure (100) represents the number of gallons of water to use. Use as a full coverage spray to runoff. Prepare a Bordeaux mixture first with a tank of water, 1/2 full. With an agitator running, mix CALCO Copper Sulfate through a copper, bronze, plastic, or stainless steel screen. Add water so the tank is 3/4 full and mix in the hydrated lime through the screen. Finish filling the tank with the balance of water.

SPECIFIC INSTRUCTIONS

Shot Hole Fungus on Almonds, Peaches, Apricots, Nectarines:  
Prepare a 10-10-100 Bordeaux and apply as a dormant spray in late fall or early spring.

Brown Rot Blossom Blight on Almonds, Apricots, Cherries, Peaches, Nectarines, Plums, Prunes:  
Prepare a 10-10-100 Bordeaux and apply when the buds begin to swell.

Leaf Spots on Sour Cherries:  
Prepare a 10-10-100 Bordeaux and apply as a full coverage spray after petal fall or as recommended by the State extension service.

Pytophthora Brown Rot on Lemons, Oranges, Grapefruit:  
Prepare a 3-4 1/2-100 Bordeaux where there is no history of Copper injury or a 3-2-6-100 (Zinc Sulfate-Copper Sulfate-Hydrated Lime-gallons of water) Bordeaux. Spray 6 gallons on skirt of tree 3-4 feet high and 2-4 gallons on trunk and ground under tree. If P. hibernalis is present, use 10-15 gallons to completely cover each tree. Apply in November or December just before or after first rain. In severe brown rot season, apply second application in January or February.

Septoria Fruit and Leaf Spot, Central California and Brown Rot and Zinc and Copper Deficiencies on Lemons, Oranges, and Grapefruit:  
Prepare a 3-2-6-100 Bordeaux and use 10-25 gallons to completely cover each tree. Apply in October, November, or December before or just after the first rain.

Walnut Blight on Walnuts:  
Prepare a 15-10-100 Bordeaux plus one half gallon summer oil emulsion. Apply in early prebloom 10-20% pistillate (not when catkin blooms are showing) before or after rain. Use only if Bordeaux mixture has been shown to be non-phytotoxic in your area.

NOTICE TO BUYERS

Seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and/or handling of this material when such use and/or handling is contrary to label instructions.

CALABRIAN INTERNATIONAL CORPORATION  
26 BROADWAY  
NEW YORK, NEW YORK 10004

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Calco Copper Sulfate

Calabrian International Corp.  
26 Broadway  
New York, NY 10006

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

1. 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.

2. Make the labeling changes listed below before you release the product for shipment:

- a. Add the phrase "EPA Registration No. 39295-0."
- b. In the Precautionary Statements, correct the spelling of "mucous."
- c. Under Algaecide, correct the spelling of "Instructions."
- d. Under Algaecide General Instructions, change "is" to "are" in the sentence "If large amounts of algae are present . . . ."
- e. Under Specific Instructions A.1., correct the spelling of "data."

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- f. Under Bordeaux Mixture, change "pound of Copper Sulfate Pentahydrate" to "pounds . . . ."
- g. Correct the spelling of "Phytophthora" on lemons, oranges, and grapefruit.
3. Submit five (5) copies of your final printed labeling before you release the product for shipment. Refer to the A-79 Enclosure for a further description of final printed labeling.

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

A stamped copy of the label is enclosed for your records.

Sincerely yours,

  
Henry M. Jacoby  
Product Manager (21)  
Fungicide-Merbicide Branch  
Registration Division (TS-767)

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