

Reg # 39295 - 8

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 17 1994

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Helene Opperman
CALABRIAN INTERNATIONAL CORP.
15,600 J. F. KENNEDY BLVD, SUITE 570
HOUSTON, TX 77032

Subject: Label Amendment Submission of 03/03/94 in Response to PR Notice 93-7
EPA Reg. No. 39295-8
CALCO COPPER SULFATE

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted subject to the comments reflected on the enclosed sheet. A copy of your proposed labeling stamped "ACCEPTED WITH COMMENTS" is enclosed.

WHAT THIS ACCEPTANCE MEANS:

Based on your certification, the Agency has accepted the labeling changes that are necessary to comply with the Worker Protection Standard (WPS) labeling requirements of 40 CFR part 156, subpart K, described in PR Notices 93-7 and 93-11. Any other labeling changes submitted in connection with this amendment application but not directly related to compliance with the WPS have not been reviewed or accepted by the Agency. If you wish to make such changes, you must submit a separate amendment application proposing them. If your product is currently suspended, the acceptance of this labeling amendment does not affect the suspension in any way.

WHAT YOU NEED TO DO NEXT:

By the next label printing make all the specified changes to your labeling. Send to EPA one (1) copy of the final printed labeling:

- BEFORE selling or distributing any product bearing the final printed labeling
- AND
- WITHIN one year from date of this acceptance.



Recycled/Recyclable
Printed with Soy/Canola Ink on paper that
contains at least 50% recycled fiber

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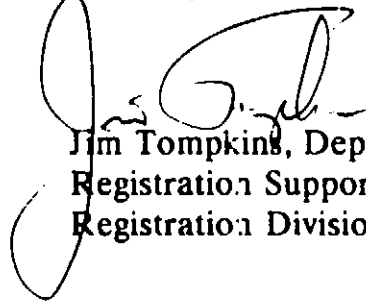
Submit the final printed labeling via the U.S. Postal Service to:

Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs (7505C)
U.S. Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460-0001

Hand or courier deliveries of final printed labeling may be made to:

Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202

Sincerely,



Jim Tompkins, Deputy Chief
Registration Support Branch
Registration Division (7505W)

Attachment

BEST AVAILABLE COPY

MAY 17 1994

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

39295-8

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**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS
(& DOMESTIC ANIMALS)**

PRECAUTIONARY STATEMENTS:
Hazard to Humans & Domestic Animals.
Corrosive, Irritant, Fatal if Swallowed.
Do not get in eyes, on skin, or on clothing. Do
not breathe dust or spray mist.

PERSONAL PROTECTIVE EQUIPMENT:

Applicators and Other Handlers Must Wear:
A. Chemical-Resistant Protective Suit,
B. Waterproof Gloves,
C. Chemical-Resistant Footwear Plus Socks,
D. Protective Eye Wear,
E. Chemical-Resistant Head Gear for Overhead
exposure, and
F. Dust/Mist Filtering Respirator
(MSHA/NIOSH) Approval Number Prefix
TC 21C)

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 clothes

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic
organisms. Do not discharge effluent containing
this product into lakes, streams, ponds, estuaries,
oceans, or public water unless this product is
specifically identified and addressed in an NPDES
permit. Do not discharge effluent containing this
product into sewer systems without previously
notifying the sewage treatment plant authority. For
guidance contact your State Water Board or
Regional Office of the EPA. Drift and runoff from
treatment of terrestrial sites may be hazardous to
fish and aquatic organisms in adjacent aquatic
sites. Do not contaminate water when disposing
of equipment washwater. Direct application of
copper sulfate to water may cause a significant
reduction in populations of aquatic invertebrates,
plants and fish. Do not treat more than one-half
of lake or pond at one time in order to avoid
depletion of oxygen from decaying vegetation.
Allow 1 to 2 weeks between treatment for oxygen
levels to recover. Trout and other species of fish
may be killed at application rates recommended
on this label, especially in soft or acid waters.
However, fish toxicity generally decreases when the
hardness of water increases. Consult your State
Fish and Game Agency before applying this
product to public waters. Permits may be required
before treating such waters.

STORAGE AND DISPOSAL

Prohibitions: Do not contaminate water, food or
feed by storage or disposal. Open burning and
dumping is prohibited. Do not reuse empty
container.

Storage: Keep pesticide in original container. Do
not put concentrate in food or drink container.
Pesticide Disposal: Pesticide, spray mixtures,
residue 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 rinseate to use solution or completely
empty bag by shaking and tapping edges 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.

**BRAND NAME
Calco Copper Sulfate**

ACTIVE INGREDIENTS:	
Copper Sulfate Pentahydrate	99.0%
INERT INGREDIENTS:	1.0%
Total	100%
Copper As Metallic, Not Less Than	25.0%

**KEEP OUT OF REACH OF CHILDREN
DANGER PELIGRO**

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
CALCO COPPER SULFATE**

IF SWALLOWED:	Give 2-4 glasses of water or milk and remove by gastric cleansing. Get medical attention immediately. Never give anything by mouth to an unconscious person.
IF INHALED:	Remove from exposure to fresh air immediately. Give artificial Respiration if breathing has stopped. Oxygen may be given by qualified personnel if breathing is difficult. Keep affected person warm and quiet. Get medical attention immediately.
IF ON SKIN:	Wash affected area with soap or mild detergent and large amounts of water. Get medical attention immediately.
IF IN EYES:	Flush eyes immediately with large amounts of water. Get medical attention.

Manufactured for Calabrian International Corporation
265 Davidson Ave., Somerset, New Jersey 08873
EPA Est. No.: 39295-PE-001
EPA Registration No.: 39295-8

NET CONTENTS: 50 LBS Net Weight

DIRECTIONS FOR USE

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

**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 of 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). The requirements in this box
only apply to uses of this product that
are covered by The Worker
Protection Standard.

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 Reg's. specific to your state or
tribe, consult the agency responsible
for pesticide regulation.

Do not enter or allow workers to enter
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:

- Chemical-Resistant Protective
Suit,
- Waterproof Gloves,
- Chemical-Resistant Footwear
Plus Socks,
- Protective Eye Wear, and
- Chemical-Resistant Head Gear
for Overhead Exposure.

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CALCO COPPER SULFATE ALGAEICIDE 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 are 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 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 pressure 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.

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 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.

To Control Algae in irrigation conveyance systems using the slug application method:

Apply copper sulfate at a rate of 0.25 lb. per CFS flow. Place chemical in burlap bag in an area of turbulent flow and repeat every 10 to 14 days in warm weather. An application is usually required every 5 to 30 miles depending upon alkalinity and algae concentration in the water.

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 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 180 pounds of Sodium Chromate in each 26 gallons of water to be used and a separate second solution of 180 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 pounds of Copper Sulfate Pentahydrate; the second figure (10) represents the pounds of 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.

Phytophthora 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. tharalis* 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 10-10-100 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
265 DAVIDSON AVE. SOMERSET, NEW JERSEY 08873



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