

WESLEY COPPER SULFATE

SUPERFINE CRYSTALS

DIRECTIONS FOR USE

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

RE-ENTRY STATEMENT

Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unexposed persons. Do not enter treated areas without protective clothing and sprays have dried. Certain states require more restrictive re-entry intervals for various crops treated with this product. Consult your State Department of Agriculture for further information.

When re-entry or work must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. When such workers are given warnings shall be given in a language customarily understood by workers. Written and oral warnings must include the following information: (BARRIER AREA TREATED WITH COPPER SULFATE ON DATE OF APPLICATION) Do not enter without appropriate protective clothing and sprays have dried. Required Protective Clothing: long sleeved shirt and long legged pants. In case of accidental exposure, wash all exposed skin areas with plenty of soap and water. Because certain states may require restrictive re-entry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

STORAGE AND DISPOSAL

Store in a cool, dry place. Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container if container is damaged, placed container in a plastic bag. "Should any spills into plastic bag and seal with tape. Plastics waste are strictly hazardous. Improper disposal of excess product, spray mixture, or residue 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 National Waste representative at the nearest EPA Regional Office for guidance. Container disposal: Completely empty tank by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of tank in a sanitary landfill or by incineration if allowed by State and local authorities.

GENERAL INSTRUCTIONS

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. When using Copper Sulfate Pentahydrate to control algae, there are many factors to consider such as water hardness, temperature of the water, type and quantity of vegetation to be controlled and the amount of water flow. Algae can be controlled more easily and effectively if treatment with Copper Sulfate is made soon after plant growth has started. Under such circumstances, small amounts of Copper Sulfate can effectively control algae in water. However, if treatment is delayed until large amounts of algae are present, larger quantities of Copper Sulfate will be required. Control of algae in water applied to fish tanks is more difficult to control with Copper Sulfate when water temperature is low. The clear water test: Copper Sulfate can be used on water temperatures of 60°F or higher. Larger quantities of Copper Sulfate will be required in hard water. Normally, larger quantities of Copper Sulfate will be required to kill algae in water that is flowing than in a body of stagnant water. If possible, control the flow of water before treatment and hold constant for about three days after treatment or until plants have begun to die. When preparing a Copper Sulfate solution in water, it is best that the mixing vessel be made of plastic or glass. Metal containers lined with plastic or painted or enameled are permissible. Galvanized containers are to be avoided. It is usually best to treat algae on calm sunny days when heavy mats of filamentary algae are most likely to be floating on the surface where it can be sprayed directly. When in doubt about the concentration to be used, it is recommended to start with a lower concentration and gradually increase the concentration until the algae is killed.

CALCULATIONS FOR AMOUNT OF WATER AND COPPER SULFATE PENTAHYDRATE TO BE USED

- Calculate water volume as follows:
 1. Clean surface area by measuring sq. ft. for shaped ponds or mapping irregular ponds or by use of previously recorded data or maps.
 2. Calculate average depth by sounding in a regular pattern and taking the mean of these readings or by use of previously recorded data.
 3. Multiply surface area in square feet by average depth in feet to obtain cubic feet of water volume.
 4. Multiply surface area in acres by average depth in feet to obtain total acre feet of water volume.
- Calculate weight of water to be treated as follows:
 1. Multiply volume in cubic feet by 62.44 to obtain total pounds of water.
 2. Multiply volume in acre feet by 2,720,000 to obtain total pounds of water.
- Calculate amount of Copper Sulfate Pentahydrate to add to calculate the weight of Copper Sulfate Pentahydrate needed to achieve the desired concentration, multiply the weight of water in pounds by the recommended concentration. Since the recommended concentrations are given in parts per million (ppm), first convert the value to a decimal equivalent. A value of 1 ppm is equivalent to 0.000001 as a decimal value. Thus the amount of Copper Sulfate Pentahydrate required to treat 1 acre-foot (2,720,000 pounds) of water with 1 ppm of Copper Sulfate Pentahydrate would be $0.000001 \times 2,720,000 = 2.72$ lbs. Copper Sulfate Pentahydrate.

Treatment of algae can result in oxygen loss from decomposition of dead algae. This loss can cause fish suffocation. Therefore to minimize this hazard, treat 1/2 to 1/3 of the main area in a single operation and wait 7 to 14 days between treatments. Begin treatments along the shore and proceed outward in bands to allow fish to move into untreated water.

NOTE: 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

TO CONTROL ALGAE IN IMPOUNDED WATER, LAKES, PONDS, AND RESERVOIRS: There are several methods by which to apply Copper Sulfate to impounded water. Probably the simplest and most satisfactory method is to dissolve the Copper Sulfate crystals in water and to spray the solution over the body of water. A small pump mounted in the boat can easily be used for this purpose. Fine crystals may be broadcast directly on the water surface from a properly equipped boat. Copper Sulfate Ag Crystals, Fine Grate or Powder are preferred for this particular method of application. A specially equipped or "water" can be used to discharge these fine crystals at a specific rate over the surface of the water when using this method. The exact direction is an important factor. Do not use this method unless carefully familiar with this type of application. Copper Sulfate Ag Crystals and Granular grades are also designed to be used as a dry application from airplanes, using a maximum of 5.3 ounces per acre. Where the situation permits, Copper Sulfate may be applied under the water by dropping bulwag bags containing Copper Sulfate. The crystals are placed in bulwag bags and dropped through the water by means of a boat. Begin treatment along the shoreline and proceed outward until one-third of the total area has been treated. Care should be taken that the source of the boat is such as to cause even distribution of the chemical. In large lakes, it is customary for the boat to travel in parallel lines about 20 to 100 feet apart. Continue dragging the bulwag bags over the treated area until the minimum dosage is achieved and all crystals have been dissolved. Copper Sulfate Large Crystals or Small Crystals should be used with this method since they dissolve readily and evenly.

TO CONTROL ALGAE IN RICE FIELDS (Domestic and Wild): Application should be made when algae has formed on the soil surface in the flooded field. Applications are most effective when made prior to the algae leaving the soil surface and rising to the water surface. Apply 10 to 15 pounds Copper Sulfate Pentahydrate to the water surface or dissolve in water and spray a surface spray. Apply heavy rain or excessive water at intervals of 2 to 3 days. **CONTROL OF RICE PESTS IN FLOODED RICE FIELDS (Domestic and Wild):** Copper Sulfate Pentahydrate is recommended for the control of *Leptothorax* in rice fields. Copper Sulfate should be applied at a rate of 10 to 15 lbs per acre by mixing with 50 gals of water and applying as a uniform surface spray using boat, plane or other appropriate means and procedures as described. This material is also designed to be used as a dry application from airplanes, using 10 to 15 pounds per acre. Use at the first indication of pest on the field has been formed to a depth of 1 to 2 inches. Copper Sulfate Pentahydrate is equally effective for maximum control of the volume of water. **COPPER SULFATE IS REQUIRED FOR THE TREATMENT OF DIFFERENT GENERA OF ALGAE:** The following table lists the recommended application rates of the United States. Use the recommended application rate in all other countries. A 100 ppm (100 mg/l) sample should be taken from the water and analyzed for copper content. Always consult State Department of Agriculture before applying this product in multiple waters.

ORGANISM	1/2 to 1 ppm*	1 to 1 ppm*	1 to 1 ppm*	1/2 to 2 ppm*
Cyanophytes (Blue Green)	Anabaena Aphanizomenon Gomphonema Lyngbya Nostoc	Cylindrocapsa Dolichosira Plectonon	Chlorella Cocconeis Gomphonema Pediastrum Plectonon	Chlorella Cocconeis Gomphonema Pediastrum Plectonon
Chlorophytes (Green)	Chlorella Hydrocoleum Spirulina Ulothrix	Bryopsis Chlorella Cocconeis Dolichosira Euglenoidae Gomphonema Pediastrum Plectonon Zygnem.	Chlorella Cocconeis Gomphonema Pediastrum Plectonon	Chlorella Cocconeis Gomphonema Pediastrum Plectonon
Bacterioplankton (Bacteria)	Aeromonas Fragilaria Mastigella Nostoc	Gomphonema Mastigella Sphaerocapsa Synedra Ulothrix	Aeromonas Cocconeis Plectonon	Aeromonas Cocconeis Plectonon
Fungi (Fungus)	Diatrypa Sphaeria Ulothrix Ulothrix	Cocconeis Cocconeis Euglenoidae Gomphonema Mastigella	Chlorella Cocconeis Plectonon	Cocconeis Plectonon

* 1/2 ppm - 07 1.3 lbs/acre, 1/2 ppm - 13 2.6 lbs/acre, 1 ppm - 26 5.2 lbs/acre, 2 ppm - 52 10.4 lbs/acre

SEWER TREATMENT—ROOT DESTROYER

1. For Partial Stoppage—Add to ground of Copper Sulfate to create or clean and flush (based on package) with 5 gallons of water. Repeat at 6 month intervals to prevent growth of new roots.
2. For Complete Stoppage—Physically remove the root branches and repeat as above.

WOOD TREATMENT

(green, painted posts)—fungus decay on

Prepare a solution of 100 pounds of sodium chromate in each 30 gallons of water to be used and a separate second solution of 100 pounds of Copper Sulfate in each 24 gallons of water to be used, wash the posts, green posts, but not clean first in the copper sulfate solution for 3 days, then but end down in sodium chromate solution for 2 days, and finally, turn the posts upside down in the sodium chromate solution for 1 additional day. Remove and reuse posts with other water.

BORDEAUX MIXTURE

HOW TO UNDERSTAND BORDEAUX FORMULATIONS:

If the Bordeaux Mixture instructions read 10-10-100, the first figure means the number of pounds of Copper Sulfate Pentahydrate. The second figure means the pounds of hydrated lime, and the third figure, the gallons of water to be used. Use as a full coverage spray to control.

HOW TO PREPARE A BORDEAUX MIXTURE:

To prepare a Bordeaux Mixture, fill a tank with water one-quarter full. Then with an equal amount of Copper Sulfate through a coarse, brown, stainless steel or plastic screen. Add water to the tank to three-quarters full. Mix in the hydrated lime first through the screen, and finish filling the tank with water.

CROPS

Almonds, Apricots, Peaches, Watermelon: Start Late Ranges - Prepare a 10-10-100 Bordeaux Mixture and apply on a dormant spray in late fall or early spring.

Almonds, Apricots, Cherries, Peaches, Watermelon, Plums, Prunes: Brown Rot (Blossom Blight) - Prepare a 10-10-100 Bordeaux Mixture and apply when buds begin to swell.

Apple: Scab - Prepare a 10-10-100 Bordeaux Mixture and apply as a full coverage spray after petal fall or as recommended by the State Extension Service.

Lemons, Oranges, Grapefruit: Phytophthora Brown Rot - Prepare a 3-4-100 Bordeaux Mixture where there is no history of copper injury or a 3-5-100 (2:1 Zinc-Copper Sulfate-Hydrated Lime-Gallons of Water) Bordeaux Mixture. Spray 6 gallons on each of two 3 to 4 feet high and 2 to 4 gallons on trunk and ground under the tree. If P infestations are present, use 10 to 25 gallons to completely cover each tree. Apply in November or December just before or after first rain. In warm Brown Rot season, apply second application in January or February.

Lemons, Oranges, Grapefruit: Septoria Fruit and Leaf Spot (Control California, Brown Rot, Zinc and Copper alternatives) - Prepare a 3-3-100 Bordeaux Mixture (2:1 Zinc-Copper Sulfate-Hydrated Lime-Gallons of Water) and use 10 to 15 gallons to completely cover each tree. Apply in October, November or December just before or after first rain.

Melons: Water Mosaic - Apply 15 pounds Copper Sulfate with 10 pounds of Hydrated Lime in 100 gallons of water plus 1/2 gallon borax of solution. Apply in early problem 10 to 20% position or when cotton blooms are showing just before or after rain. Use only if Bordeaux Mixture has been proven to be non-phytotoxic in your area.

Onions: Fusarium Spot, Olive Knot - Prepare a 10-10-100 Bordeaux Mixture and apply in autumn before heavy water runs to prevent Fusarium Spot. In areas of less than 10 inches rainfall, use a 5-10-100 Bordeaux Mixture. To help prevent Fusarium Spot, apply a 10-10-100 Bordeaux before heavy rains and again in the spring. Injury may occur in areas of less than 10 inches of rainfall.

Peaches: Bacterial Blight - Prepare a 10-10-100 Bordeaux Mixture and apply at beginning of emergence. Repeat at 7 to 10 day intervals. Apply more often during frequent rainfalls or when severe disease conditions occur.

FEED ADDITIVE

Copper Sulfate is a valuable dietary supplement in feed for many birds, chickens and other agricultural animals. Please consult your State Agricultural Experiment Station or State Extension Service for guidance in preparing feed rations.

— WARRANTY — CONDITION OF SALE:

DIRECTIONS FOR USE of this product are based on field use and tests believed reliable and should be followed. It is, however, impossible to eliminate all risks associated with use of this product. Because such factors as weather conditions, timing, material and manner of use for application are all beyond the control of Wesley Industries, Inc., or the Seller of this product, such things as crop injury, ineffectiveness or other unintended consequences may result.

ALL SUCH RISKS ARE ASSUMED BY THE BUYER.

Wesley Industries, Inc., warrants that this product conforms to the chemical description on the label and as reasonably fit for the purposes referred to in the directions for use. Wesley Industries, Inc. makes no other warranties, expressed or implied, including FITNESS OR MERCHANTABILITY. In no case shall Wesley Industries, Inc. or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product. The foregoing is a condition of sale by Wesley Industries, Inc. and is accepted as such by the Buyer.

US ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDES PROGRAMS
REGISTRATION DIVISION (75-707)
WASHINGTON, DC 20460

EPA REGISTRATION NO.

47916-54

DATE OF ISSUANCE

FEB 3 1989

TERM OF ISSUANCE

CONDITION

NAME OF PESTICIDE PRODUCT

Wesley Copper Sulfate
Granular Crystals

NOTICE OF PESTICIDE:

REGISTRATION
 REREISTRATION

(Under the Federal Insecticide, Fungicide,
and Rodenticide Act, as amended)

NAME AND ADDRESS OF REGISTRANT (Include ZIP code)

Wesley Industries, Inc.
P.O. Box 490
Montrose, AL 36559

NOTE: Changes in labeling formula differing in substance from that accepted in connection with this registration submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence product always refer to the above U.S. 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.

A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.

Registration is in no way to be construed as an indorsement or approval of this product by this Agency. In order to protect the 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 the 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 used by others.

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

1. Submit/cite all data required for registration/reregistration of your product under FIFRA section 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. 47916-54."
 - b. The label must be revised by adding the statement "May cause skin sensitization in certain individuals" to the precautionary statements section prior to the release of the product into the channels of trade.
3. Submit five (5) copies of your final printed labeling before you release the product for shipment. Refer to EPA Form 8570-6 for a full description of the printed labeling.

ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL

DATE

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

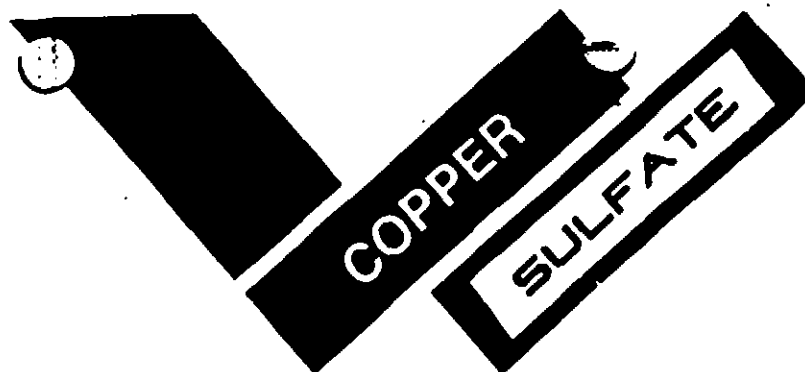
Richard F. Mountfort *RFM*
Product Manager (23)
Fungicide-Herbicide Branch
Registration Division (TS-767C)

Enclosures

ACCEPTED
with COMMENTS
by EPA District Office

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

47916-54



GRANULAR CRYSTALS

ACTIVE INGREDIENT:

Copper Sulfate Pentahydrate	99.0%
INERT INGREDIENTS	1.0%
TOTAL	100.0%

(METALLIC COPPER EQUIVALENT

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER - PELIGRO

Corrosive, causes irreversible eye damage. Do not get in
on skin, or on clothing. Protective clothing, including
and rubber gloves, should be worn. Harmful if swallowed,
inhaled, or absorbed through the skin. Avoid breathing du
Causes severe skin irritation. Wash thoroughly with soap
water after handling. Remove contaminated clothing and wa
before reuse.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic organisms. Do not
apply directly to water except as directed under the speci
instructions section. Drift and runoff from treated areas
may be hazardous to fish and aquatic organisms in adjacent
aquatic sites. Direct application of copper sulfate to wa
may cause a significant reduction in populations of aquati
invertebrates, plants and fish. Do not treat more than on
of lake or pond at one time in order to avoid depletion of
oxygen levels due to decaying vegetation. Allow one to tw
weeks between treatments for oxygen levels to recover.

Trout and other species of fish may be killed at applicati
rates recommended on this label, especially in soft or sc
waters. However, fish toxicity generally decreases when
hardness of water increases.

Do not contaminate water by cleaning of equipment or disp
of wastes. Consult your State Fish and Game Agency before
applying this product to public waters. Permits may be
required before treating such waters.

KEEP OUT OF REACH OF CHILDREN

DANGER - PELIGRO

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este
producto hasta que le etiqueta haya sido explicado ampliamente.

Statement of Practical Treatment

IF SWALLOWED: Drink promptly a large quantity of milk, egg
whites, gelatin solution, or if these are not available, large
quantities of water. Avoid alcohol.

Note to Physician: Probable mucosal damage may contraindicate
the use of gastric lavage.

IF IN EYES: Flush with plenty of water. Get medical attention.

IF ON SKIN: Remove contaminated clothing. Wash skin with
soap and warm water. Get medical attention.

IF INHALED: Remove victim to fresh air. If not breathing, give
artificial respiration, preferably mouth-to-mouth. Get medical
attention.

EPA Reg. No. 47916-

EPA Est. No. 47916-AL-01

NET CONTENTS:

 **wesley industries, inc.**

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