

35896-19

07-26-2010

1/9



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7504P)
Ariel Rios Building
1200 Pennsylvania Ave., NW
Washington, D.C. 20460

EPA Reg. Number:

35896-19

Date of Issuance:

JUL 26 2010

NOTICE OF PESTICIDE:

Registration
 Reregistration
(under FIFRA, as amended)

Term of Issuance:

Name of Pesticide Product:

Copper Sulfate Pentahydrate

Name and Address of Registrant (include ZIP Code):

Phibro-Tech, Inc.
2395 Cains Mill Road
Sumter, SC 29154

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above 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. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect 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 this 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 covered by others.

This product is reregistered in accordance with FIFRA provided that you:

- 1) Submit and/or cite all data required for registration/reregistration review of your product when the Agency requires all registrants of similar products to submit data.

Signature of Approving Official:

Tony Kish
Product Manager 22
Fungicide Branch
Registration Division (7504P)

Date:

JUL 26 2010

2) Based on toxicity ranking per the acute toxicity review, the First Aid statements be placed on the label with the "If in the eyes" statements prior to the "If swallowed," and the "If swallowed" statements before the "If on skin or clothing" and "If inhaled" statements.

3) As specified in the acute toxicity review, a phone number (1-800-xxx-xxxx) for emergency medical treatment information should be added to the label.

4) The text "Corrosive. Causes irreversible eye damage. Causes severe skin irritation. Harmful if absorbed through the skin or inhaled. May cause skin sensitization reactions in certain individuals. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Protective clothing including goggles should be worn" needs to be removed from the "User Safety Recommendations" box and be placed under the heading '**DANGER-PELIGRO**' and **must be revised to read:**

"Corrosive. Causes irreversible eye damage. May be fatal if swallowed. Do not get in eyes or on clothing."

5) Per the acute toxicity review and the RED, the handler PPE must be revised to read:

"Some materials that are chemical-resistant to this product are made of any waterproof material. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

Loaders and applicators must wear:
Long-sleeved shirt and long pants,
Shoes and socks,
Goggles or faceshield, and
Chemical-resistant gloves."

Note: Gloves are not needed for this product but may remain on the label. If gloves are removed from the label the chemical-resistant category information ("Some materials that are chemical-resistant to this product...") should also be deleted from the label.

6) Per the RED, the text appearing in the User Safety Recommendation section must be revised to read as specified below. All other text in this section must be deleted.

"User Safety Recommendations

User should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

User should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly

and put on clean clothing.

Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing. Wash the outside of gloves before removing.”

7) Per the revised copper label table, the Environmental Hazards text currently on the label must be revised to read:

“For terrestrial use

This pesticide is toxic to fish and aquatic invertebrates and may contaminate water through runoff. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

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 or rinsate.

For Aquatic use

This pesticide is toxic to fish and aquatic invertebrates. Waters treated with this product may be hazardous to aquatic organisms. Treatment of aquatic weeds and algae can result in oxygen loss from decomposition of dead algae and weeds. This oxygen loss can cause fish and invertebrate suffocation. To minimize this hazard, do not treat more than ½ of the water body to avoid depletion of oxygen due to decaying vegetation. Wait at least 10 to 14 days between treatments. Begin treatment along the shore and proceed outwards in bands to allow fish to move into untreated areas. Consult with the State or local agency with primary responsibility for regulating pesticides before applying to public waters, to determine if a permit is required.

Certain water conditions including low pH (≤ 6.5), low dissolved organic carbon (DOC) levels (3.0 mg/L or lower), and “soft” waters (i.e., alkalinity less than 50 mg/L), increases the potential acute toxicity to non-target aquatic organisms.”

8) For non-WPS uses, the following text in bold type must be added to the entry restriction text: “Do not enter **or allow others to enter** to treated area until sprays have dried.”

9) Per the revised Copper label table, the text “For applications in waters destined for use as drinking water, those waters must receive additional and separate potable water treatment. Do not apply more than 1.0 ppm as metallic copper in these waters” must be added to the label and any conflicting text must be deleted.

10) Under Static or Minimal Flow Situations, change “recommended amount” to “directed

amount”.

Under Flowing Water Situations, change “apply ¼ to ½ pound of copper sulfate...45 minutes” to “apply ¼ to ½ pound of copper sulfate pentahydrate per CFS ... for 45 minutes.”

Under Specific Instructions section, Flowing Water Situations, in the paragraph entitled ‘To Control Algae and Weeds in Irrigation System by “Slug” Method of Addition’, an application time period, such as day or hour, must be inserted after the application amount “add ½ to 3 pounds for each C.F.S. (cubic foot per second) of flow **for xx (hours, days)**, repeat every two weeks.” and it must comply with the RED restrictions.

To the “To Control Pests in Artificially Impounded Waters” you must add use directions to not exceed 1.0 ppm and no more than ½ of the water body may be treated at a time.

The text “A suggested concentration of 1.5 ppm in moderately hard water is usually sufficient” appearing under the heading “To eliminate leeches” must be revised to state that the maximum application rate for leech control is 1.5 ppm.

The following restrictions must be added to the directions for use on rice to control algae: no more than ½ of the water body may be treated at a time.

11) The restriction text “**Do not make more than two applications per year,**” must be added to the Sewer Pumps and Force Mains section of the label. “Repeat as needed” must be deleted.

12) To the warranty statement add “to the extent consistent with applicable law” in front of “there are no other warranties”.

A stamped copy of the label is enclosed for your records. You must submit one copy of the final printed label before you release the product for shipment. Products shipped after 12 months from the date of this letter or the next round of printing must bear the new revised label. If these EPA conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA. Your release for shipment of the product constitutes acceptance of these EPA Reg. conditions. This label supersedes all other previously accepted labels. If you have any questions please call Erik Kraft at 703-308-9358 or email at Kraft.Erik@epa.gov.

Enclosure: Product Chemistry Review
Acute Toxicology Review

5/2

PHIBRO-TECH, INC.

COPPER SULFATE PENTAHYDRATE ALGAECIDE / HERBICIDE / FUNGICIDE / BACTERICIDE

ACTIVE INGREDIENT:

Copper Sulfate Pentahydrate (CAS # 7758-99-8)* 99.0%

OTHER INGREDIENTS: 1.0%

TOTAL: 100.0%

(*Metallic Copper Equivalent 25.2%)

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.)

FIRST AID	
IF IN EYES:	<ul style="list-style-type: none">•Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.•Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none">•Take off contaminated clothing•Rinse skin immediately with plenty of water for 15-20 minutes•Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	<ul style="list-style-type: none">•Call a poison control center or doctor immediately for treatment advice.•Have person sip a glass of water if able to swallow.•Do not induce vomiting unless told to do so by a poison control center or doctor.•Do not give anything by mouth to an unconscious person.
IF INHALED:	<ul style="list-style-type: none">•Move person to fresh air.•If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.•Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate use of gastric lavage.

EPA Reg. No. 35896-19

EPA Est. No. 35896-SC-1

Phibro-Tech, Inc.
2395 Cains Mill Road
Sumter, SC 29154

ACCEPTED
with COMMENTS
In EPA Letter Dated:
JUL 26 2010

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

Bulk Wt. 50 pounds

35896-19

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
DANGER – PELIGRO**

USER SAFETY RECOMMENDATIONS

Corrosive. Causes irreversible eye damage. Causes severe skin irritation. Harmful if absorbed through the skin or inhaled. May cause skin sensitization reactions in certain individuals. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist. Protective clothing including goggles should be worn. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Do not eat, drink, or use tobacco products while handling this product. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT

Mixers, loaders, applicators and other handlers must wear:

- Coveralls
- Chemical resistant gloves made of any waterproof material
- Shoes plus socks
- Goggles

Some materials that are chemical-resistant to this product are polyvinyl chloride, nitrile rubber, or butyl rubber. If you want more options, follow the instructions for category A on an EPA chemical resistance category selection sheet.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them. Wash the outside of gloves before removing.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic organisms. Do not apply directly to water except as directed under specific instruction section. Do not contaminate water when disposing of equipment wash water or rinsate. Drift may be hazardous to aquatic organisms in water adjacent to treated areas.

Waters treated with this product may be hazardous to aquatic organisms. Treatment of aquatic weeds and algae can result in oxygen loss from decomposition of dead algae and weeds. This oxygen loss can cause fish and invertebrate suffocation. To minimize this hazard, do not treat more than one-half of lake or pond at one time in order to avoid depletion of oxygen levels from decaying vegetation. Allow 14 days between treatments for oxygen levels to recover. Begin treatment along the shore and proceed outwards in bands to allow fish to move into untreated areas. Consult with the State and local agency with primary responsibility for regulating pesticides before applying this product to public waters, to determine if a permit is required.

Certain water conditions including low pH (≤ 6.5), low dissolved organic carbon (DOC) levels (3.0 mg/L or lower), and "soft" waters (i.e. alkalinity less than 50 mg/L), increase the potential acute toxicity to non-target aquatic organisms.

Potable water sources treated with copper products may be used as drinking water only after additional potable water treatments.

Use of this product may pose a hazard to certain federally designated endangered species known to occur in specific area of the following counties: Solano (CA); Lawrence, Wayne, Hancock (TN); Lauderdale, Limestone, Madison (AL); Grayson, Smyth, Washington, Lee (VA). Before using this product, refer to the appropriate EPA Bulletin specific to your area. This bulletin identifies areas where the use of this pesticide is prohibited, unless specified otherwise.

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 (WPS), 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 internal (REI). The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the REI of 48 hours.

PPE required for early entry to treated areas that is permitted under the WPS and that involves contact with anything that has been treated, such as plants, soil, or water, is coveralls, shoes plus socks, chemical resistant gloves made of any waterproof material, and 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 WPS 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 until sprays have dried.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Store unused product in original container only in a cool, dry area out of reach of children and animals.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide 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, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

SPECIFIC INSTRUCTIONS

STATIC OR MINIMAL FLOW SITUATIONS

Impounded Waters, Reservoirs, Lakes and Ponds: Accurately 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, 326,000 gallons, or 2,720,000 pounds of water. Do not treat more than one-half of lake or pond at one time in order to avoid depletion of oxygen levels from decaying vegetation. Allow 14 days between treatments for oxygen levels to recover.

For control of filamentous and planktonic algae, an average application would be 2.92 pounds Copper Sulfate Pentahydrate per acre-foot of water. This application rate will result in a copper concentration of 0.27 ppm in the treated water. Dilute the recommended amount with at least 20 parts of water and apply the mixture as a uniform surface spray. Break up floating mats prior to application. Most effective algae control is obtained under calm, sunny conditions with a water temperature above 60 °F. Two to three treatments may be needed in a season. Copper Sulfate Pentahydrate treatments should begin with the first signs of algae growth.

For control of bottom-attached algae (Chara and Nitella) use 5.8 pounds of Copper Sulfate Pentahydrate per acre-foot of water to be treated. This application rate will result in a copper concentration of 0.54 ppm in the treated water. Dilute that recommended amount of Copper Sulfate Pentahydrate in 10 gallons of water and apply as a uniform surface spray.

For Potable/Culinary Water Systems, the amount of Copper Sulfate Pentahydrate applied should not exceed 4 ppm, which is an equivalent copper concentration of 1 ppm in the treated water.

FLOWING WATER SITUATIONS

Irrigation/Potable Water Conveyance Systems: Accurately determine the flow rate of water in cubic feet per second (C.F.S.) or gallons per minute (Gal./Min.). One C.F.S. equals 450 Gal./Min. Apply ¼ to ½ pound of Copper Sulfate Pentahydrate per hour per C.F.S. by a gravity feed or similar drip system and maintain this drip rate for 45 minutes.

Make the application at a point of turbulence in the canal for good dispersion of the chemical. The distance of control depends upon the density of algae growth. For this reason, the application should be made as soon as the

algae starts interfering noticeably with the flow of water.

Leafy and Sago Pond Weed: Using a continuous feeder, apply 1.6 to 2.4 pounds Copper Sulfate Pentahydrate per cubic foot per second per day. For maximum effectiveness, it is necessary to begin addition when water is first turned into the system or ditch to be treated and to continue without interruption as long as the system is operating. The effectiveness of copper sulfate decreases with increased alkalinity especially when the bicarbonate alkalinity exceeds 150 ppm. If inadequate control of pond weeds is observed, it may be necessary to treat the ditch with an approved herbicide or by mechanical means. In either case, the addition of copper sulfate should be resumed as quickly as possible.

TO CONTROL ALGAE AND WEEDS IN IRRIGATION SYSTEM BY "SLUG" METHOD OF ADDITION – Add ½ to 3 pounds for each C.F.S. of flow, repeat every two weeks. A pile is required for every 50 to 30 miles of length depending on alkalinity of the water.

TO CONTROL PESTS IN ARTIFICIALLY IMPOUNDED WATERS (e.g., farm ponds) – On a calm, sunny afternoon (with water temperature above 60 °F) dissolve Copper Sulfate Pentahydrate and distribute over entire pond, pools and tributaries following distribution methods for algae control.

TO ELIMINATE LEECHES

A suggested concentration of 1.5 ppm in moderately hard water is usually sufficient.

FRESHWATER SNAIL CONTROL

To kill parasites causing "swimmers itch" it is necessary to kill the various species of host snails, treating the entire pond (as directed above) with 1.5 ppm Copper Sulfate Pentahydrate. It is best to keep swimmers and livestock out of the pond for 5 days following treatment; doubling this period in very soft waters. See also "fish caution." Copper Sulfate Pentahydrate crystals or solution must be kept out of eyes, nose and mouth (see Danger above). Do not make more than two applications per year. In the state of New York, copper sulfate is considered a restricted use pesticide for snail control.

RICE FIELDS (INCLUDING WILD RICE)

ALGAE IN RICE FIELDS: Apply 1.5 to 2 pounds copper sulfate per acre to the water surface as either a surface spray in water or crystals. Application should be made when the algae has formed on the soil surface but prior to rising to the water surface. Apply higher rate (i.e., 2 pounds), in water of six inches or greater.

TADPOLE SHRIMP IN RICE FIELDS: Apply 5 to 10 pounds of copper sulfate crystals per acre to the flooded field at any time the pest appears between planting time and until the seedlings are rooted and have emerged through the water surface. The lower rate should be used when the water depth and flow rate are minimal and the higher rate should be used when the water depth and flow are at a maximum.

WOOD TREATMENT

Green Peeled Posts: To prevent fungus decay and/or rot, prepare a solution of 18 pounds of sodium chromate in each 26 gallons of water 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 2 days, and finally turn the posts upside down in the sodium chromate solution for 1 additional day. Remove and rinse the posts with clear water.

SEWER TREATMENT*

To Control Root Growth in Commercial, Industrial and Municipal Sewers: Use 2 pounds Copper Sulfate Pentahydrate every 6 to 12 months, applied into each junction or terminal manhole as a preventative measure. Add Copper Sulfate Pentahydrate during period of reduced flow; however, a small flow is essential. If reduced flow due to root masses is observed, but not completely stopped, add Copper Sulfate Pentahydrate in the next manhole above the reduced flow area. If completely blocked, use a rod to penetrate the mass so some flow begins before treatment.

Storm Drains: Use 2 pounds of Copper Sulfate Pentahydrate per drain per year. Apply during a period of light water flow. In dry weather, introduce a flow with a hose. If storm drains become almost plugged, repeat treatment three or four times at two week intervals.

Sewer Pumps and Force Mains; Place 2 pounds of Copper Sulfate Pentahydrate in a cloth bag at the storage well inlet. Repeat as needed.

*Do not use as a sewer additive where prohibited by State law. State law prohibits the use of this product in sewage systems in Connecticut and California.

8/9

9/8

WARRANTY STATEMENT

PHIBRO-TECH, INC. warrants that the product conforms to the chemical description on the label and is reasonably fit for the purposes set forth on the label when used according to directions under normal use conditions. THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. This warranty does not extend to the handling or use of this product contrary to label instructions or under abnormal conditions or under conditions not reasonably foreseeable to seller and buyer assumes all risk of any such use.

Phibro-Tech, Inc.
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