

PHIBRO-TECH, INC.

COPPER SULFATE PENTAHYDRATE ALGAECIDE / HERBICIDE / FUNGICIDE / BACTERICIDE

ACTIVE INGREDIENT:		
Copper Sulfate Pentahydrate.....	99.0%	
INERT INGREDIENTS:.....	1.0%	
TOTAL	100.0%	

ACCEPTED
JUL 1 2004
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 35896-19

Copper as metallic not less than 25.2%

EPA Reg. No. 35896-19

EPA Est. No. 35896-SC-1

Bulk Wt. 50 pounds

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.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER – PELIGRO

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 dust.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- ◆ Chemical resistant gloves made of any waterproof material
- ◆ Shoes plus socks
- ◆ Protective eyewear

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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 personal protective equipment (PPE). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

User 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 change into clean clothing.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic organisms. Do not apply directly to water except as directed under the specific instructions section. Drift and run-off from treated areas may be hazardous to fish and aquatic organisms in adjacent aquatic sites. 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 levels from decaying vegetation. Allow 1 to 2 weeks between treatment for oxygen levels to recover.

Do not contaminate water by cleaning or disposal of waste. Consult your State Fish and Game Agency before applying this product to public waters. Permits may be required before treating such waters. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high watermark.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. For wood treatment uses, do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

SPECIAL PRECAUTIONS: Direct application of Copper Sulfate Pentahydrate to water may cause a significant reduction in populations of aquatic in vertebrates, 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.

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 interval (REI). 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 REI of 24 hours unless the following instructions are followed:

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, waterproof gloves, shoes plus socks 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

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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. If container or bag is damaged, place the container or bag in a plastic bag. Shovel any spills into plastic bags and seal with tape. **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:** Completely empty bag. 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.

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.

For control of filamentous and planktonic algae, an average application would be 1.36 pounds Copper Sulfate Pentahydrate per acre-foot of 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 2.27 pounds of Copper Sulfate Pentahydrate per acre-foot of water to be treated. Dilute that recommended amount of Copper Sulfate Pentahydrate in 4 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 $\frac{1}{4}$ to $\frac{1}{2}$ 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 $\frac{1}{2}$ 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 5 ppm in moderately hard water is usually sufficient. 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 2 to 5 ppm Copper Sulfate Pentahydrate. In very hard waters (alkalinity more than 200 ppm) Copper Sulfate Pentahydrate concentrations as high as 10 ppm may be needed. At these Copper Sulfate Pentahydrate dosages, 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).

RICE FIELDS (INCLUDING WILD RICE)

Algae in Rice Fields: Apply 10 to 15 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., 15 pounds), in water of six inches or greater.

Tadpole Shiners 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 the State of Connecticut.

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.

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