OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION
WASHINGTON, D.C. 20460

October 9, 2025

Mandy K. Styles
Registration Manager
Drexel Chemical Company
P.O. Box 13327
Memphis, TN 38113

Subject: Label Amendment - Registration Review Mitigation for Copper Compounds
Product Name: DREXEL COPPER SULFATE CRYSTAL
EPA Registration Number: 19713-407
Case Number: N/A
Application Dates: July 1, 2022

Dear Mandy K. Styles:

The Agency, in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Copper Compounds Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

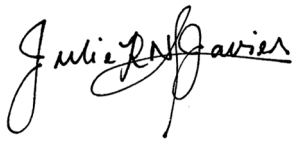
Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide, Fungicide, and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling and must be used at your next label printing. You must submit one copy of the final printed labeling before you release the product for

shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions about this letter, please contact Caleb Carr by phone at 202-566-0636, or via email at carr.caleb@epa.gov.

Sincerely,



Julie Javier, Team Leader
Risk Mitigation and Implementation Branch 4
Pesticide Re-Evaluation Division
Office of Pesticide Programs

ENCLOSURE: Stamped label

COPPER	GROUP	M1	FUNGICIDE

COPPER	GROUP	NOT CLASSIFIED	HERBICIDE

ACCEPTED
Oct 9, 2025
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 19713-407

Kopper Sulfate

ACTIVE INGREDIENT:	
Copper sulfate pentahydrate*	98.0%
OTHER INGREDIENTS:	2.0%
TOTAL:	100.0%

* [CAS No. 7758-99-8]
* Metallic copper equivalent is 24.9%

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.)

See FIRST AID Below

EPA Reg. No. 19713-407
EPA Est. No. 19713-XX-X **Net Content: _____Lbs. (_____Kg)**

FIRST AID
IF IN EYES: • Hold eye open and rinse slowly and gently with water for 15 to 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 SWALLOWED: • 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 or convulsing person.
IF ON SKIN OR CLOTHING: • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
IF INHALED: • 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. You may also call CHEMTREC at 800-424-9300 for emergency medical treatment information.
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsions may be needed.

Manufactured By:
Drexel Chemical Company
P.O. Box 13327, Memphis, TN 38113-0327
SINCE 1972

407SP-0825*Pending

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER: Corrosive. Causes irreversible eye damage. May be fatal if swallowed. Harmful if absorbed through skin. Do not get in eyes, or on clothing. Avoid contact with skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Mixers, loaders, applicators and other handlers must wear: Long-sleeved shirt and long pants, waterproof gloves, shoes plus socks and protective eyewear (goggles or face shield).

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 PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS

Pilots must use an enclosed cab that meets the definition listed in the WPS for agricultural pesticides [40 CFR 170.305].

USER SAFETY RECOMMENDATIONS

Users should: 1) Wash hands thoroughly with soap and water before eating, drinking, chewing gum, using tobacco or using the toilet. 2) Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3) Wash the outside of gloves before removing. 4) Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

For Terrestrial Uses: 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 one-half of the water body and wait at least 14 days between treatments to avoid depletion of oxygen due to decaying vegetation (excluding water infrastructure and constructed conveyances such as drainage and irrigation canals, ditches and pipelines or intakes and aqueducts for drinking water or irrigation use). 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 nontarget aquatic organisms.

Fish Advisory: This copper product is toxic to fish and aquatic organisms. Unlike most organic pesticides, copper is an element and will not break down in the environment and will therefore accumulate in sediment with repeated applications. Copper is a micronutrient, but its pesticidal application rate exceeds the amount of copper needed as a nutrient.

Stormwater Advisory: This product may be applied for the purposes of root intrusion control in storm drains or storm sewers that can discharge directly or indirectly into ephemeral or permanent waterbodies. This product must not be used in any municipal or public storm sewer or MS4 system or any storm drain system otherwise covered under an NPDES MS4 discharge permit. Copper will accumulate with repeated applications in the waterbodies to which treated storm drains/sewers discharge.

To the extent possible, avoid simultaneous treatments of multiple drain systems that discharge to the same waterbody. Staggering applications to individual stormwater collection points to allow interceding storm events to clear the product from previously treated drains can help reduce the impact to aquatic organisms in receiving waterbodies. Development of and adherence to, a pesticide management plan for storm drains is encouraged.

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, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, 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 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, 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 Worker Protection Standard 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. If applied as a spray, do not enter or allow others to enter until sprays have dried. If applied dry, do not enter or allow others to enter until dusts have settled.

FUNGICIDE/BACTERICIDE RESISTANCE MANAGEMENT

COPPER	GROUP	M1	FUNGICIDE

For resistance management, this product contains a Group M* fungicide/bactericide. Any fungal/bacterial population may contain individuals naturally resistant to this product and other Group M fungicides/bactericides. A gradual or total loss of pest control may occur over time if these fungicides/bactericides are used repeatedly in the same fields. Appropriate resistance management strategies should be followed.

To delay fungicide/bactericide resistance, take one or more of the following steps:

- Rotate the use of this product or other Group M fungicides/bactericides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicides/bactericide from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide/bactericide use that includes scouting, uses historical information related to pesticide use, and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide/bactericide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal/bacterial populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance management and/or IPM recommendations for specific crops and pathogens.
- For further information or to report suspected resistance, contact Drexel Chemical Company at (901) 774-4370. You can also contact your pesticide distributor or university extension specialist to report resistance.

*The multi-site activity grouping, designated by the symbol “M”, comprises a collection of various chemicals that act as general toxophores with several sites of action. These sites may differ between group members.

AQUATIC HERBICIDE RESISTANCE MANAGEMENT

- Water bodies or management units should be scouted prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective. Water bodies or management units should be scouted after application to verify that the treatment was effective.
- Suspected herbicide-resistant weeds may be identified by these indicators:
  - Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
  - A spreading patch of non-controlled plants of a particular weed species; and
  - Surviving plants mixed with controlled individuals of the same species.
- Implement the “Early Detection, Rapid Response Practice and Maintenance Control” by using the following practices where possible*:*
  - Identify weeds present in a management unit through scouting or history of the water body and understand the biology of target species.
  - Applications should target weeds when populations are small and there is low biomass, early in the season to maximize efficacy.
  - Applications should be made so that the herbicide contacts the weed. Use the appropriate application method for the use site/weed/chemical combination.

* Weed escapes should not be allowed to go to seed or produce asexual vegetative propagules.
* Use a diversified approach toward weed management. Whenever possible incorporate multiple weed-control practices such as mechanical control, biological management practices, and rotation of MOAs.
* Time applications to have the highest probability for control and minimize need for follow-up control measures. Apply during conditions that minimize herbicide degradation (light /temperature/microbes) and/or dissipation (water exchange).

- Contact your local sales representative, local water management agency, or extension agent to find out if suspected resistant weeds to this MOA have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank-mix products so that there are multiple effective mechanisms of actions for each target weed.

MANDATORY SPRAY DRIFT MANAGEMENT

AERIAL APPLICATIONS:

- Do not release spray at a height greater than 10 feet above the vegetative canopy or water, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a medium or coarser droplet size (ANSI/ASABE S641 May 2018).
- Do not apply when wind speed exceeds 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the application area.
- Do not apply during temperature inversions.

GROUND BOOM APPLICATIONS:

- Apply with the spray release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to use a medium or coarser droplet size (ANSI/ASAE S572.3 Feb 2020).
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.
BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size - Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size - Aircraft

- Adjust Nozzles - Follow nozzle manufacturer's recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

BOOM HEIGHT - Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift. When applying aerially to crops, do not release spray at a height greater than 10 feet above the crop canopy, unless a greater application height is necessary for pilot safety.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

CONTROL OF ALGAE AND TADPOLE SHRIMP (*Triops longicaudatus*) IN RICE FIELDS (Domestic and Wild)

To Control Tadpole Shrimp: Apply this product not to exceed 10 parts per million (ppm) per acre (equivalent to 2.5 ppm of copper per acre) to the flooded fields anytime the pest appears between planting time and until the seedlings are rooted and have emerged through the water. The use rate per acre should be determined by the water depth and flow.

To Control Algae: Apply this product not to exceed 4 ppm (equivalent to 1 ppm of copper per acre) either as a surface spray in water or crystals when algae have formed on the soil surface in the flooded field but prior to rising to the water surface.

Use Restrictions:

- To control tadpole shrimp, the maximum application rate is 2.5 ppm of copper per acre per application (27.3 pounds of this product per acre foot of water).
- The maximum annual application rate must be no greater than 13.7 pounds of metallic copper (55 pounds of this product) per acre foot per year for control of tadpole shrimp.
- To control algae in rice fields, the maximum application rate is 1 ppm of copper per acre per application (10.9 pounds of this product per acre foot of water). Minimum retreatment interval is 14 days. No more than one-half of the water body may be treated at one time. If the treated water is to be used as source of potable water, the metallic copper concentration must not exceed 1 ppm.
- The maximum annual application rate must be no greater than 5.48 pounds of metallic copper (22 pounds of this product) per acre foot per year for control of Algae control in water-seeded Rice.

SEWER TREATMENT FOR ROOT AND FUNGUS CONTROL

Roots of shrubbery and trees growing near sewer lines frequently penetrate sewer lines in search of moisture and nutrients causing tile breakage, gradual reduced flow, and sometimes complete stoppage. This product is effective in keeping sewer lines free of roots. It is safe for drain systems and does not harm outdoor shrubbery or trees. Do not apply into sink or tub drains as it will corrode these metal drains.

Use Restrictions: Do not apply more than 2 pounds of this product per acre per application. Do not apply more than 8 pounds of this product per acre per year. Minimum retreatment interval is 6 months. Maximum number of application per calendar year is two.

State Law prohibits the use of this product in sewage systems in the State of CT and in the following nine counties in CA: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma.

For Partial Stoppage: Add 0.5 pound of this product to sewer or drain and flush toward blockage with 5 gallons of water. Repeat at 6 month intervals to prevent growth of new roots.

For Complete Stoppage: Physically remove the root blockage and treat as *"For Partial Stoppage".*

For Household Sewer: Use 2 pounds of this product twice yearly in Spring and early Fall. Apply in toilet bowl near sewer line. Flush 0.5 pound at a time or remove the cleanout plug and pour entire quantity directly into sewer line and flush with water.

If system is equipped with a septic tank, copper sulfate will be precipitated in the septic tank and little will pass into the absorption drain field. To treat drain field pipes, add 2 pounds of this product to distribution box located between the septic tank and the drain field. If distribution box does not have an opening, it would be advisable to install a cleanout plug opening into the outlet pipe from the septic tank leading to the drain field for effective root control in the drain field pipes.

NOTE: Laboratory studies have shown that copper sulfate added to an active 300 gallon septic tank at 2, 4 and 6 pounds per treatment temporarily reduced bacterial action, but it returned to normal 15 days after treatment. Trees and shrubbery growing near a treated line normally will have only a small portion of their roots in contact with the copper sulfate that primarily kills only those roots inside the pipe, thus, not affecting the growing plants.

FOR COMMERCIAL, INSTITUTIONAL AND MUNICIPAL USE

Sewers: Use 2 pounds of this product every 6 to 12 months, applied to each junction or terminal manhole.

Storm Drains: Use 2 pounds of this product per drain per year. Apply during period of light flow. In dry weather, induce a flow with hose. If storm drains become almost plugged, repeat treatment at a minimum of 6 month intervals.

Sewer Pumps and Force Mains: Place 2 pounds of this product in a cloth bag at the storage wall inlet. Repeat as needed.

Use Restriction: Do not apply more than 2 pounds of this product per application. Do not apply more than 8 pounds of this product per year. Minimum retreatment interval is 6 months. Maximum number of application per calendar year is two.

APPLICATION INSTRUCTIONS FOR AQUATIC USE*

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 biomass. This oxygen loss can cause fish and invertebrate suffocation. To minimize this hazard, do not treat more than ½ of the water body and wait at least 14 days between treatments to avoid depletion of oxygen due to decaying vegetation (excluding water infrastructure and constructed conveyances such as drainage canals, ditches and pipelines or intakes and aqueducts for drinking water or irrigation use).
Begin treatment along the shore and proceed outward 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.

Application of algaecides to high density blooms of cyanobacteria can result in the release of intracellular contents into the water. Some of these intracellular compounds are known mammalian hepato- and nervous system toxins. Therefore, to minimize the risk of toxin leakage, manage cyanobacteria effectively in order to avoid applying this product when blooms of toxin-producing cyanobacteria are present at high density. In situations where rapidly reproducing toxic algal species pose a public health threat to drinking or recreational water resources, applicators must receive authorization from applicable state, local or tribal water resources authorities to apply copper at intervals shorter than 14 days should the circumstance demand.

Certain water conditions including low pH ($\leq$ 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. The application rates on this label are appropriate for water with pH values > 6.5, DOC levels > 3.0 mg/L, and alkalinity greater than 50 mg/L. Avoid treating waters with pH values < 6.5, DOC levels > 3.0, and alkalinity less than 50 ppm (e.g., soft or acid waters), as Trout and other sensitive species of fish may be killed under such conditions if present.

Consult your state department of natural resources or fish and game agency before applying this product to public waters. Permits may be required before treating such waters.

*Excludes uses in swimming pools, spas, hot tubs, fountains, aquatic agriculture and livestock ponds.

PRE-APPLICATION DOSE DETERMINATION FOR ALGAE AND AQUATIC PLANT TREATMENTS

For algae and aquatic plant treatments, applicators should conduct initial dose determination tests simulating a full-scale treatment program to determine the minimum efficacious concentrations for eliminating the target species, unless an effective dose is already known for the given target pest population.

CONTROLLING WEEDS, ALGAE, AND MICROSCOPIC ORGANISMS IN IMPOUNDED WATER SOURCES (TANKS, RACEWAYS, LAKES, PONDS, RESERVOIRS), FISH HATCHERIES, AND CROP AND NON-CROP IRRIGATION CONVEYANCE SYSTEMS, DITCHES, CANALS AND LATERALS

Precautions concerning fish: The treatment of algae with this product can result in oxygen loss in the water from decomposition of dead algae. This can cause the fish to suffocate. Care should be taken when water temperature exceeds 85°F. At this water temperature, aquatic plants treated with copper sulfate decompose rapidly, causing an increase in oxygen depletion. Therefore, to minimize this hazard, treat one-third to one-half of the water area in a single operation. Wait 14 days between treatments. Begin treatment along the shore and proceed outwards in bands to allow fish to move into untreated water.
This product can be applied to impounded water by the following methods:

Application by dragging this product under water: Large or small sized product is placed in burlap bags or baskets and dragged through the water by means of a boat. Begin treatment along the shoreline and proceed outward until one-third to one-half of the total area has been treated. The path of the boat should ensure a distribution that is even. In large lakes, the boat should move in parallel lines about 20 to 100 feet apart. Continue dragging until all of the weighed product is dissolved.

Application by spraying solution of this product on water surface: A solution can be made with this product which dissolves easily in water. While the volume per surface acre depends on the type of spray equipment being used, spray volume should be approximately 20 to 500 or more gallons per acre of surface water. This solution can then be sprayed on the pond or lake surface from a boat. When using this method, the wind direction is important as well as the operation of the boat. Do not endanger people or animals in the boat with the copper sulfate spray. **Application by injecting copper sulfate solution in water:** A solution can be made with this product. This solution can then be injected into the water via a piping system.

Application by broadcasting dry copper sulfate crystal: Crystals may be broadcasted directly on the water surface from the shore or from a properly equipped boat. Crystals ranging from ± 10 mesh to one-half inch are preferred for this method of application. A specifically equipped air blower can be used to discharge these size crystals at a specific rate over the surface of the water. When using this method, the wind direction is an important factor. Do not use this method unless completely familiar with this type of application.

Application by spraying this product dry from airplanes and helicopters: Professional personnel licensed by the State Agricultural Service are allowed to apply this product in some states.

Important: If treated water is to be used as a source of potable water, the metallic residual must not exceed 1 ppm copper. This is equal to 10.9 pounds per acre-foot of water or 4 ppm of this product.
Potable water sources treated with copper products may be used as drinking water only after proper additional potable water treatments.

Application Directions to Control Algae in Catfish Ponds

Applications are no longer needed in the Fall after fish are harvested or the average water temperatures fall below 70°F. Apply mid-morning at a rate of 0.31 pounds metallic copper (1.2 pounds of this product) per acre foot (0.11 ppm metallic copper). Place copper crystals in a cloth bag and then put the filled bag into another cloth bag to slow the rate at which the copper dissolves. Suspend the double bagged unit of copper about 20 feet in front of a paddlewheel aerator. Run the aerator until all the copper sulfate is dissolved; this usually requires an hour or two. Use copper only if you plan to harvest fish before fall and anticipate problems with off-flavoring algae.

Do not make routine copper treatments for algae control in fingerling ponds or in broodish ponds because off-flavors are not a problem in those fish. Do not use this treatment regimen in waters of low hardness and alkalinity (less than 50 ppm as CaCO3) because copper may stress or kill fish.

Application Directions to Control Ich in Earthen Catfish Ponds

To apply copper to control Ich in earthen Catfish ponds as static batch treatment, administer 0.27 to 0.69 pounds metallic copper (1 to 2.7 pounds of this product) per acre foot (0.1 to 0.25 ppm or mg/L based on metallic copper = 0.4 to 1 ppm or mg/L by product) per 100 mg/L total alkalinity (as $CaCO_3$) as an indefinite exposure once daily for 5 to 11 consecutive days.

Application Directions for Applying Copper to Water Mold of Catfish Eggs in the Hatchery

Water molds on Catfish eggs are treated inside the hatchery using a flow-through hatching trough. Administer a rate of 6.9 pounds metallic copper (27.7 pounds of this product) per acre foot (2.5 ppm or mg/L based on metallic copper = 10 ppm or mg/L by product) to the water of a flow-through hatching trough once daily until the embryos (eggs) develop eyes; flow rate should allow for 1 exchange every 30 minutes.

Use Restrictions for Ponds, Lakes and Reservoirs

Maximum annual application rate of 21.9 pounds of metallic copper (87.9 pounds of this product) per acre foot (8 applications per year at up to 1 ppm). This rate/frequency is calculated based on staggering the treatment of each half of the water body every 14 days [at a rate of 2.74 pounds metallic copper (11 pounds of this product) per acre foot = 1 ppm] for eight months (244 days). In situations where rapidly reproducing toxic algal species pose a public health threat to drinking or recreational water resources, applicators must receive authorization from applicable state, local or tribal water resources authorities to apply copper in excess of 21.9 pounds of metallic copper (87.9 pounds of this product) per acre foot (8 applications per year at up to 1 ppm).

HOW TO FIND THE POUNDS OF THIS PRODUCT TO ADD TO WATER

To find acre-feet of water in a body of water, measure the depth of the body of water in feet. Calculate the surface area in square feet, divided by 43,560 (square feet/acre) times the average depth in feet.

1 acre-foot of water	=	Water measuring 208.7 feet long by 208.7 feet wide by 1 foot deep
1 acre-foot of water	=	43,560 cubic feet of water
1 cubic foot of water	=	62.4 pounds
1 acre-foot of water	=	(43,560)(62.4) = 2,720,000 pounds

COPPER SULFATE PENTAHYDRATE IN WATER

Pounds of Copper Sulfate Pentahydrate Per Acre-Foot of Water	=	Parts (by weight) Copper Sulfate Pentahydrate per Million Parts (by weight) of Water	=	Parts (by weight) Copper per Million Parts (by weight) of Water
0.67 pound/acre-foot	=	0.25 ppm	=	0.0625 ppm
1.35 pound/acre-foot	=	0.5 ppm	=	0.125 ppm
2.7 pound/acre-foot	=	1 ppm	=	0.25 ppm
5.45 pound/acre-foot	=	2 ppm	=	0.5 ppm
10.9 pound/acre-foot	=	4 ppm	=	1.0 ppm
27.3 pound/acre-foot	=	10 ppm	=	2.5 ppm

TREATMENT OF SOME ALGAE WITH COPPER SULFATE PENTAHYDRATE

A higher concentration is required if the water is hard. Consult with the State Fish and Game Agency before applying product in municipal waters.

Copper Sulfate Pentahydrate (ppm)			
0.25 to 0.50	**0.50 to 1.00**	**1.00 to 1.50**	**1.50 to 2.00**
CYANOPHYCEAE ORGANISM (Blue Green)			
Anabaena Anacystis Aphanizomenon Gloeotrichia Gomphosphaeria Polycystis Rivularia	Cylindrospermum Oscillatoria Plectonema	Nostoc Phormidium	Calothrix Symploca
CHLOROPHYCEAE ORGANISM (Green)			
Closterium Hydrodicyton Spirogyra Ulothrix	Botryococcus Cladophora Coelastrum Draparnaldia Enteromorpha Gloeocystis Microspora Tribonema Zygnema	Chlorella Cruicigenia Desmidium* Golenkinia Oocystis Palmella Pithophora* Staurastrum Tetaedron	Ankistrodesmus Chara* Nitella* Scenedesmus
DIATOMACEAE ORGANISM (Diatoms)			
Asterionella Fragilaria Melorias* Navicula	Gomphonema Nitzschia Stephanodiscus Synedra Tabellaria	Achnanthes Cymbella Neidium	
PROTOZOA ORGANISM (Flagellates)			
Dinobryon Synura Uroglena*	Ceratium Cryptomonas Euglena Glenodinium Mallomonas	Chlamydomonas Haematococcus* Peridinium	Eudorina* Pandorina*
* NOT FOR USE IN CA			

Use Restrictions: Do not apply more than 10.9 pounds of this product (equivalent to 4 ppm of copper sulfate pentahydrate or 1 ppm of copper) per acre foot of water per application. Minimum retreatment interval is 14 days. No more than one-half of the water body may be treated at one time. If the treated water is to be used as source of potable water, the metallic copper concentration must not exceed 1 ppm.

TO CONTROL ALGAE AND WEEDS IN FLOWING WATER

To control Potamogeton pond weeds, Leafy and Sago, in irrigation conveyance systems, use the continuous application method, selecting proper equipment to supply this product at 0.25 to 0.5 pound per hour for each cubic foot per second of flow for 12 hours of each 24 hours. For best control, begin copper sulfate additions when water is first turned into system to be treated and continue throughout the irrigation season. Copper sulfate becomes less effective for mature plants. Copper sulfate becomes less effective as the bicarbonate alkalinity increases and is substantially reduced above 150 ppm as $CaCO_3$. Mechanical or other means may then be required to remove excess growth.

To control algae (such as filamentous green, pigmented flagellates, diatoms) in irrigation conveyance systems, begin continuous addition when water is first turned on, using suitable equipment to uniformly deliver 0.1 to 0.2 pound of copper sulfate per hour per cubic foot per second of flow for 12 of each 24 hours. (Note: This product comes in several “free flowing” crystal sizes but should be selected to match the requirements of your feeder.)

Important: This method may only be used in constructed irrigation conveyance systems, laterals and aqueducts.

Use Restrictions:
Do not apply more than 10.9 pounds of this product (equivalent to 4 ppm of copper sulfate pentahydrate or 1 ppm of copper) per acre foot of water per application. Minimum retreatment interval is 14 days. No more than one-half of the water body may be treated at one time. If the treated water is to be used as source of potable water, the metallic copper concentration must not exceed 1 ppm.

The maximum annual application rate is 13 pounds metallic copper (52.2 pounds of this product) per year per 5 miles of conveyance per cubic foot per second (CFS). Apply this product into irrigation conveyance system or lateral at up to a maximum rate of 0.5 pound metallic copper (2 pounds of this product) per cubic foot per second of water per 5 to 30 mile treatment depending on water hardness, alkalinity and algae concentration.

TO CONTROL ALGAE AND BACTERIAL ODOR IN SWIMMING POOLS

Apply 1 to 2 pounds of this product per 60,000 gallons (8,000 cubic feet) of water. This will result in a concentration of 0.5 to 1 ppm of dissolved copper. Dissolve the required amount of copper sulfate in a plastic container and pour the solution into the pool. Use the higher rate where visible algae are present. For maintenance dosages, use the lower rate. Repeat the lower rate to control the recurrence of algae and avoid the buildup of copper. This product may be used to help control pool odors and algae during the Winter months. Apply the higher rate while the pool is not being used during the Winter.

Before draining a treated pool, contact your local sanitary sewer and storm drain authorities and follow their discharge instructions. Do not discharge treated pool water to any location that flows to a gutter, storm drain or natural water body unless discharge is allowed by state and local authorities.

Treated pool effluent should not be discharged where it will drain into lakes, streams, ponds or public water.

TO CONTROL ALGAE AND BACTERIAL ODOR IN SEWAGE LAGOONS AND PITS (Except CA)

Application rates may vary depending on amounts of organic matter in effluent streams or retention ponds. Use 2 pounds of this product in 60,000 gallons (8,000 cubic feet) of effluent to yield 1 ppm of dissolved copper. Dosage levels may vary depending upon organic load.

Other Organic Sludges: This product solution must be thoroughly mixed with sludge. Dissolve 2 pounds in 1 to 2 gallons of water and apply to each 30,000 gallons of sludge.

Useful formula for calculating water volume and flow rates: Multiply the water volume in cubic feet times 7.5 to obtain gallons.

Note: 1 C.F.S./ hour = 27,000 gallons
1 acre-foot = 326,000 gallons

TO CONTROL ALGAE AND BACTERIAL ODOR IN WATERSCAPES, DECORATIVE POOLS AND FOUNTAINS

Apply in the Spring or early Summer when algae and bacteria first appear. The dosages are variable and depend upon algae/bacteria species, water hardness, water temperature, amount of algae and bacteria present as well as whether water is clear, turbid, flowing or static. Preferably, the water should be clear with temperatures above 60°F. Higher dosages are required at lower water temperatures, higher algae and bacteria concentrations and for hard waters. For each 7,500 gallons of water, dissolve 0.25 pound of this product in one gallon of water. Pour the solution into the water to be treated. Several application points speed up dispersal. Static water requires less chemical than does flowing water. If uncertain about the dosage, begin with a lower dose and increase until control is achieved or until the maximum allowable level of copper has been reached.

Before draining a treated pool, waterscapes or fountains, contact your local sanitary sewer and storm drain authorities and follow their discharge instructions. Do not discharge treated pool or spa water to any location that flows to a gutter, storm drain or natural water body unless discharge is allowed by state and local authorities.

DIRECTIONS FOR USE IN CROPS

APPLES

To control Fire blight, mix 5 pounds of this product in 100 gallons of water, not to exceed 6 pounds of metallic copper (24 pounds of this product) per acre per application during the Fall/late dormant period OR 6 pounds of metallic copper (24 pounds of this product) per acre per application between silver tip and green tip. After silver tip, severe burn will occur on any exposed green tissue. Do not mix lime to make a Bordeaux spray for this treatment.

Use Restrictions:
For Fall/late dormant use: The maximum application rate is 6 pounds of metallic copper (24 pounds of this product) per acre per application. Only one application is permitted per season.

For use between silver-tip and green-tip: The maximum application rate is 6 pounds of metallic copper (24 pounds of this product) per acre per application. Only one application is permitted per season.

The maximum annual application rate is 16 pounds of metallic copper (64.2 pounds of this product) per acre per year.

GRAPES (DORMANT):
Powdery mildew- Apply in Spring before bud swell and before any green tissue is present. Use 3 pounds of metallic copper (12 pounds of this product). Apply in a high volume spray of 300 gallons of water per acre. Direct spray to thoroughly wet the dormant vine, especially the bark of the trunk, head or cordons.

Use Restrictions: Do not apply more than 3 pounds of metallic copper (12 pounds of this product) per acre per application. Do not apply more than 20 pounds of metallic copper (80.3 pounds of this product) per acre per year. Minimum retreatment interval is 3 days.

POTATOES (Except CA):
To enhance vine-kill and suppress Late blight, apply 2.5 pounds of metallic copper (10 pounds of this product) per acre in 10 to 100 gallons of water (ground equipment) or in 5 to 10 gallons (aerial equipment) with Diquat at vine-kill to enhance vine desiccation and suppress late blight. Additional applications can be made with Diquat if needed within 7 days of harvest. This product may be applied alone until harvest to suppress late blight. NOTE: This product can be mixed with Diquat for use on potatoes in accordance with the most restrictive of label limitations and precautions. No label dosage rates should be exceeded.

Use Restrictions: Do not apply more than 2.5 pounds of metallic copper (10 pounds of this product) per acre per application. Do not apply more than 25 pounds of metallic copper (100.4 pounds of this product) per acre per year. Minimum retreatment interval is 5 days.

WALNUTS:
Walnut blight– Apply 3.7 pounds of metallic copper (15 pounds of this product) with 10 pounds of lime in 100 gallons of water not to exceed 4 pounds of metallic copper (16 pounds of this product) per acre per application. Make application in early pre-bloom before catkin blooms are showing (10 to 20% pistillate) before or after rain. Use only if Bordeaux mixture has been shown to be non-phytotoxic in your area. If desired, add one-half gallon summer oil emulsion per 100 gallons of water. NOTE: Addition of summer oil emulsion to pre-bloom and early bloom sprays may result in plant injury.

Use Restrictions: Do not apply more than 4 pounds of metallic copper (16 pounds of this product) per acre per application. Do not apply more than 32 pounds of metallic copper (128.5 pounds of this product) per acre per year. Minimum retreatment interval is 7 days.

BORDEAUX SPRAY MIXTURE

Understanding Bordeaux Formulations: If the Bordeaux mixture instructions read 10-10-100, the first figure indicates the number of pounds of this product. The second figure is the pounds of hydrated spray lime and the third figure is the gallons of water to be used. Use as a full coverage spray to point of runoff.

Preparation of Bordeaux Spray Mixture: Fill tank one-fourth full with water. With agitator running, add this product through a copper, bronze, stainless steel or plastic screen. Add water so the tank is three-fourths full. Mix in the hydrated spray lime through the screen and finish filling the tank with water.

USE DIRECTIONS WITH BORDEAUX MIXTURE

ALMOND, APRICOT, PEACH, NECTARINE: To control Shot hole fungus, prepare a 10-10-100 Bordeaux mixture. Apply as a dormant spray in late Fall or early Spring.

Use Restrictions: On Almonds, do not apply more than 8 pounds of metallic copper (32.1 pounds this product) per acre per application during the dormant period. On Apricot, Peach, and Nectarine, do not apply more than 8 pounds of metallic copper (32.1 pounds of this product) per acre per application during the dormant/delayed dormant up to pink bud stage. Minimum retreatment interval is 7 days. Do not apply more than 18 pounds of metallic copper (72.2 pounds of this product) per acre per year.

ALMOND, APRICOT, CHERRY, PEACH, NECTARINE, PLUM, PRUNE: To control Brown rot blossom blight, prepare a 10-10-100 Bordeaux mixture. Apply when buds begin to swell.

Use Restrictions: On Almonds, do not apply more than 8 pounds of metallic copper (32.1 pounds of this product) per acre per application during the dormant/late dormant period. On Apricot, Cherry, Peach, Nectarine, Plum, and Prunes, do not apply more than 8 pounds of metallic copper (32.1 pounds of this product) per acre per application during the dormant/delayed dormant up to pink bud stage. Minimum retreatment interval is 7 days. Do not apply more than 18 pounds of metallic copper (72.2 pounds of this product) per acre per year.

BULBS (EASTER LILY, TULIP, GLADIOLUS): To control Botrytis blight, prepare a 10-10-100 Bordeaux mixture. Apply as a foliar spray to 1 acre. Apply for thorough coverage beginning at the first sign of disease and repeat at 7 to 10 day intervals. Use the shorter intervals during periods of frequent rains or when severe disease conditions persist. Avoid spray just before flower cutting season if residues are a problem.

Use Restrictions: On Easter lily, do not apply more than 2.5 pounds of metallic copper (10 pounds of this product) per acre per application. Do not apply more than 74 pounds of metallic copper (297.6 pounds of this product) per acre in a 12-month period. Minimum retreatment interval is 7 days. Do not apply any additional copper pesticide to this land for 36 months.
On Tulips and Gladiolus, do not apply more than 2 pounds of metallic copper (8 pounds of this product) per acre per application. Do not apply more than 20 pounds of metallic copper (80.3 pounds of this product) per acre per year. Minimum retreatment interval is days.

CHERRY (SWEET): To control Dead bud, Bacterial canker (*Pseudomonas syringae*), prepare a 12-12-100 Bordeaux. Apply at leaf fall and again in late Winter before buds begin to swell. In wet cool Northwest U.S. winters, a third spray may be needed between above sprays.

Use Restrictions: Do not apply more than 8 pounds of metallic copper (32.1 pounds of this product) per acre per application during the dormant/late dormant up to pink bud stage. Minimum retreatment interval is 7 days. Do not apply more than 1.5 pounds of metallic copper (6 pounds of this product) during the bloom/growing season. Minimum retreatment interval is 5 days. Do not apply more than 18 pounds of metallic copper (72.2 pounds of this product) per acre per year.

CHERRY (SOUR): To control Leaf spot, prepare a 10-10-100 Bordeaux. Apply as a full coverage spray after petal fall or as recommended by the State Extension Service.

Use Restrictions: Do not apply more than 8 pounds of metallic copper (32.1 pounds of this product) per acre per application during the dormant/late dormant up to pink bud stage. Minimum retreatment interval is 7 days. Do not apply more than 1.5 pounds of metallic copper (6 pounds of this product) during the bloom/growing season. Minimum retreatment interval is 5 days. Do not apply more than 18 pounds of metallic copper (72.2 pounds of this product) per acre per year.

CITRUS (GRAPEFRUIT, KUMQUAT, LEMON, LIME, ORANGE, PUMMELO, TANGELO, TANGERINE)

Bacterial Blast: Prepare a 10-10-100 Bordeaux spray and apply a spray in late October to early November or before Fall rains begin. Make a complete coverage spray using 10 to 25 gallons per mature tree.

Use Precaution: Adding foliar nutritionals to spray mixtures containing this product or other products containing copper and applying to Citrus during the post-bloom period when young fruit is present may result in spray burn.

Use Restrictions: Do not apply more than 3.1 pounds of metallic copper (12.5 pounds of this product) per acre per application. Do not apply more than 12.6 pounds of metallic copper (50.6 pounds of this product) per acre per year. Minimum retreatment interval is 7 days.

LEMON, ORANGE, GRAPEFRUIT

***Phytophthora* Brown Rot:** Prepare a 3-4.5-100 Bordeaux mixture only where there is no history of copper injury or use a 3-2-6-100 (Zinc Sulfate-Copper Sulfate Crystals-Hydrated Lime-Gallons of water) Bordeaux mixture. Spray 6 gallons on skirt of tree 3 to 4 feet high and 2 to 4 gallons on trunk and ground under tree. If *Phytophthora hibernalis* is present, use 10 to 25 gallons to completely cover each tree. Apply in November or December just before or after first rain. In several brown rot season, apply second application in January or February.

Use Restrictions: Do not apply more than 3.1 pounds of metallic copper (12.5 pounds of this product) per acre per application. Do not apply more than 12.6 pounds of metallic copper (50.6 pounds of this product) per acre per year. Minimum retreatment interval is 7 days.

***Septoria* Fruit, Leaf Spot; Central California (Brown Rot, Zinc, Copper Deficiencies):** Prepare a 3-2-6-100 Bordeaux mixture (Zinc sulfate-This product-Hydrated lime-Gallons of water). Use 10 to 25 gallons to completely cover each tree. Apply in October, November or December before or just after first rain.

Use Restriction: Do not apply more than 3.1 pounds of metallic copper (12.5 pounds of this product) per acre per application. Do not apply more than 12.6 pounds of metallic copper (50.6 pounds of this product) per acre per year. Minimum retreatment interval is 7 days.

GRAPE: To control Downy mildew, prepare a 2-6-100 Bordeaux mixture. Apply beginning when disease is detected. This mixture and its use will exhibit some phytotoxicity on most varieties.

Use Restrictions: Do not apply more than 3 pounds of metallic copper (12 pounds of this product) per acre per application. Do not apply more than 20 pounds of metallic copper (80.3 pounds of this product) per acre per year. Minimum retreatment interval is 3 days.

OLIVES: To control Olive leaf spot (Peacock spot), and Olive knot, prepare a 10-10-100 Bordeaux mixture. Apply up to 500 gallons per acre. In Autumn before heavy winter rains to prevent peacock spot.

In wet winters, a repeat spray may be needed in mid-winter. In areas with less than 10 inches of annual rainfall, a 5-5-100 Bordeaux applied in up to 500 gallons per acre may be used. To help protect against Olive knot, 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.

Use Restrictions: Do not apply more than 6 pounds of metallic copper (24 pounds of this product) per acre per application. Do not apply more than 18 pounds of metallic copper (72.2 pounds of this product) per acre per year. Minimum retreatment interval is 30 days.

PEACH: To control Leaf curl, prepare a 10-10-100 Bordeaux mixture. Apply at leaf fall or as a dormant spray in late Fall or early Spring before buds begin to swell.

Use Restrictions: Do not apply more than 8 pounds of metallic copper (32.1 pounds of this product) per acre per application during the dormant/late dormant up to pink bud stage. Minimum retreatment interval is 7 days. Do not apply more than 18 pounds of metallic copper (73.2 pounds of this product) per acre per year.

CHEMIGATION INSTRUCTIONS

Apply this product only through one or more of the following types of systems: sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation system(s). Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential area, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses. Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in English. Signs must be post prior to application and must remain posted until foliage has dried and soil surface

water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period. At the top of the sign shall be the words “KEEP OUT”, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word “STOP”. Below the symbol shall be the words “PESTICIDES IN IRRIGATION WATER”. All words shall consist of letters at least 2.5 inches tall, and all letters and the symbol shall be a color that sharply contrasts with their immediate background. This sign is in addition to any sign posted to comply with the Worker Protection Standard.

CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly services an average of at least 25 individuals daily at least 60 days out of the year. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into the reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must contain a functional, normally closed, solenoid operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. See Treatment Instructions, below.

SPRINKLER CHEMIGATION

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. The system must contain a functional check valve, vacuum relief valve, and low pressure drain approximately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. This pipeline must also contain a functional, normally closed, solenoid operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

CHEMIGATION APPLICATION INSTRUCTIONS

Do not apply when wind speed favors drift beyond the area intended for treatment. When mixing, fill nurse tank half full with water. Add this product slowly to tank while hydraulic or mechanical agitation is operating and continue filling with water. Stickers, spreaders, insecticides, nutrients, etc. should be added last. If compatibility is in question, use the compatibility jar test before mixing a whole tank. Because of the wide variety of possible combinations which can be encountered, observe all use precautions and limitations on the label of all products used in mixtures. This product should be added through a traveling irrigation system continuously or at the last 30 minutes of solid set or hand moved irrigation systems. Agitation is recommended.

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. Store copper sulfate solution in stainless steel, fiberglass, polypropylene, PVC or plastic equipment. Do not use mild steel, nylon, brass or copper. Keep away from galvanized pipe and nylon equipment. 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. In the event copper sulfate solution is spilled, neutralize with limestone or baking soda before disposal. The copper sulfate solution may deteriorate concrete.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of pesticide, spray mixture 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. Open dumping is prohibited.

CONTAINER DISPOSAL:

Nonrefillable Container (flexible-bag-all weights): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Nonrefillable Container (rigid-fifty pounds or less): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank. Fill the container one-fourth full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Nonrefillable Container (rigid-greater than fifty pounds): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank. Fill the container one-fourth full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Refillable Container: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

WARRANTY—CONDITIONS OF SALE

OUR DIRECTIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the seller. To the extent consistent with applicable law, Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith. To the extent consistent with applicable law, in no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and / or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.