

11435-3

7/18/2013

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

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Mr. Ronald L. Miller
CP Chemicals
65 Challenger Road, 3rd Floor
Ridgefield Park, NJ 07660

JUL 18 2013

Subject: Product Name: Copper Sulfate Liquid
EPA Reg. No. 11435-3
Submission date: 6/21/13
Amendment: Addition of a rate correction and specific instructions in the form of a
rate table for use with drip and injections metering systems
Decision Number 480753

Dear Mr. Miller:

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is unconditionally acceptable under 3(c)(5).

One copy of the label stamped "Accepted" is enclosed for your records. This label supersedes all labels previously accepted for this product. Please submit one copy of the final printed label before the product is released for shipment.

If you have questions concerning this letter, please call Banza Djapao at 703-305-7269 or via e-mail at djapao.banza@epa.gov or you may call me at 703-308-9443.

Sincerely,

A handwritten signature in black ink that reads "Banza Djapao".

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



COPPER SULFATE LIQUID ALGAECIDE

ACCEPTED
JUL 18 2013
Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under
EPA Reg. No. 11435-3 2/8

ACTIVE INGREDIENT:

Copper Sulfate Pentahydrate, CAS # 7758-99-8* 23.58 %

OTHER INGREDIENTS:..... 76.42 %

TOTAL..... 100.00%

*(Metallic copper equivalent 6.00%)

Contains 0.59 pound metallic copper/gallon or 70.7 grams/liter

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 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 to an unconscious person.
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 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.
HOT LINE NUMBER	
For medical emergencies involving this product, call toll free 1-888-324-7598. 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. 11435-3

EPA Est. Nos. 11435-CA-1

Net Volume _____ gallons

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

Corrosive. Causes irreversible eye damage. Harmful if swallowed. Harmful if absorbed through the skin. May cause skin sensitization reactions in certain individuals. Do not get in eyes, on skin, or on clothing. Avoid breathing spray mist.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Mixers, loaders, applicators and other handlers must wear:

- Long sleeved shirt and long pants
- Shoes and socks
- Chemical-resistant gloves made of any waterproof material
- Protective eyewear such as goggles, face shield, or safety glasses

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.

USER SAFETY RECOMMENDATIONS

Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. 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. Wash the outside of gloves before removing. As soon as possible, 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 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.

For applications in waters intended for use as drinking water, those waters must receive additional and separate potable water treatment. Do not apply more than 1.0 ppm metallic copper in these waters.

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.

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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 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 you State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL

[FOR BULK AND MINI-BULK REFILLABLE CONTAINERS]:

Refill these containers with pesticide only. Do not reuse these containers 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, 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.

[FOR PLASTIC ONE-WAY CONTAINERS & BOTTLES LESS THAN 5 GALLONS]:

Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Triple rinse as follows: Empty the remaining contents into application equipment

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or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a 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.. Then offer for recycling or reconditioning if available, 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.

[FOR ONE-WAY PLASTIC DRUMS, 5 GALLONS OR LARGER]:

Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ 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 a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning if available, 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.

SPRAY DRIFT MANAGEMENT

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

- Droplet Size - Apply only as a medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.
- Wind Speed - Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition (approximately 3 to 10 mph), and there are no sensitive areas within 250 feet downwind.
- Temperature Inversions - If applying at wind speeds less than 3 mph, the applicator must determine if a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.
- Other State and Local Requirements - Applicators must follow all state and local pesticide drift requirements regarding application of copper compounds. Where states have more stringent regulations, they must be observed.
- Equipment - All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.
- Additional requirements for aerial applications:
 - The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.
 - Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety.
 - When applications are made with a crosswind, the swath must be displaced downwind. The applicator must compensate for this displacement at the up and downwind edge of the application area by adjusting the path of the aircraft upwind.

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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. No more than one half of the body of water may be treated at one time. If the treated water is to be used as a source of potable water, the copper concentration must not exceed 1 ppm.

For control of filamentous and planktonic algae: apply 1 gallon COPPER SULFATE LIQUID per acre-foot of water. This application rate will result in a copper concentration of 0.21 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. The most effective algae control is obtained under calm, sunny conditions.

For control of bottom-attached algae (Chara and Nitella): use 2 gallons per acre-foot of water to be treated. Dilute that recommended amount of COPPER SULFATE LIQUID in 4 gallons of water and apply as a uniform surface spray.

This material undiluted is corrosive to metal and must not be allowed to remain in contact with metal drip apparatus or spray equipment. Rinse spray equipment thoroughly after use.

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 3 pints of COPPER SULFATE LIQUID per hour per C.F.S. by a gravity feed or similar drip system and maintain this drip rate for 45 minutes. This drip rate will maintain a copper concentration of 1 ppm in the flowing water 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.

Sprinkler, Drip, and Other Types of Irrigation Equipment: Apply Copper Sulfate Liquid continuously for the duration of the water application using a drip or injection system at the rates specified in the following table.

COPPER SULFATE LIQUID APPLICATION RATE EXAMPLES

Water Flow Rate		Maximum Rate (1.0 ppm copper)	Moderate (0.2 ppm copper)	Light (0.06 ppm copper)
C.F.S.	Gal./Min.			
1	450	3.0 pints/hour 0.81 fluid ounce/minute 24 mL/minute	0.6 pints/hour 0.16 fluid ounce/minute 4.8 mL/minute	0.18 pints/hour 0.05 fluid ounce/minute 1.4 mL/minute
2	900	6.1 pints/hour 1.6 fluid ounce/minute 49 mL/minute	1.2 pints/hour 0.32 fluid ounce/minute 9.6 mL/minute	0.36 pints/hour 0.10 fluid ounce/minute 2.9 mL/minute
3	1,350	9.1 pints/hour 2.4 fluid ounce/minute 72 mL/minute	1.8 pints/hour 0.49 fluid ounce/minute 14.4 mL/minute	0.55 pints/hour 0.15 fluid ounce/minute 4.3 mL/minute

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4	1,800	12 pints/hour 3.2 fluid ounce/minute 96 mL/minute	2.4 pints/hour 0.65 fluid ounce/minute 19 mL/minute	0.73 pints/hour 0.19 fluid ounce/minute 5.7 mL/minute
5	2,250	15 pints/hour 4.0 fluid ounce/minute 120 mL/minute	3.0 pints/hour 0.81 fluid ounce/minute 24 mL/minute	0.91 pints/hour 0.24 fluid ounce/minute 7.2 mL/minute
10	4,500	30 pints/hour 8.1 fluid ounce/minute 240 mL/minute	6.1 pints/hour 1.6 fluid ounce/minute 48 mL/minute	1.8 pints/hour 0.49 fluid ounce/minute 14.4 mL/minute
20	9,000	61 pints/hour 16 fluid ounce/minute 480 mL/minute	12 pints/hour 3.2 fluid ounce/minute 96 mL/minute	3.6 pints/hour 0.97 fluid ounce/minute 29 mL/minute

This material undiluted is corrosive to metal and must not be allowed to remain in contact with metal drip apparatus or spray equipment. Rinse application equipment thoroughly after use.

RICE FIELDS

Algae in Rice Fields: apply 2½ to 3½ quarts COPPER SULFATE LIQUID per acre to the water surface as a surface spray. 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., 3½ quarts), in water of six inches or greater.

Tadpole Shrimp in Rice Fields: apply 2 ¼ to 4 ½ gallons of COPPER SULFATE LIQUID 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.

NOTE: Areas treated with COPPER SULFATE LIQUID may be used for swimming or fishing immediately after treatment. Water from treated lakes or ponds may be used to irrigate turf, fairways, putting greens and ornamental plants.

NOTE: Recommendations for use of this product is based upon tests believed to be reliable. Since aquatic field conditions vary widely, the user must determine the suitability of this product for his/her particular application. Necessary approval and/or permits should be obtained in states where required.

DO NOT APPLY THIS PRODUCT THROUGH ANY TYPE OF IRRIGATION SYSTEM.

WARRANTY STATEMENT

CP Chemicals, 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 to the extent consistent with applicable law, buyer assumes all risk of any such use.

CP Chemicals, Inc.
65 Challenger Road, 3rd Floor

ACCEPTED
JUL 18 2013
Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under
EPA Reg. No. 11435-3