UNITED STAIRS U	S. ENVIRONMENTAL PROTECTION AGENCY		EPA Reg. Number:	Date of Issuance:	
Shuhumun agence	Office of Chemical Safety and Pollu Office of Pesticide Prog Registration Division (7	rams 504P)	88911-1	FEB 1 3 2013	
THE PROTECTON	1200 Pennsylvania Ave., N.W. Washington, DC 20460		Term of Issuance: Unconditional		
	NOTICE OF PESTICIDE: X_ Registration Reregistration (under FIFRA, as amended)		Name of Pesticide Product: Liquid Copper Sulfate		
Name and Address of Reg EAGLE LABS, IN P.O. BOX 645 DESOTO, TX 751			Associates LLC allas Parkway, Su	iite 200;	
	accepted by the Registration Div his product always refer to the a	vision prior to use of	the label in comme	egistration must rce .1n any	
correspondence on the On the basis of inf hereby registered Registration is in product by the Ag on his motion, ma accordance with t of a product unde exclusive use of th	formation furnished by the formation furnished by the l under the Federal Insection no way to be construed as gency. In order to protect h by at any time suspend or co the Act. The acceptance of r this Act is not to be constru- ne name or to its use if it has	Asion prior to use of above EPA registration e registrant, the a cide, Fungicide as an endorsement health and the en cancel the registration any name in con trued as giving the as been covered b	the label in comme on number bove named pes nd Rodenticide A or recommenda vironment, the A ation of a pestici- nection with the he registrant a rig by others.	rce. In any ticide is Act. tion of this Administrator, de in registration ght to	
Correspondence on the On the basis of inf hereby registered Registration is in product by the Ag on his motion, ma accordance with t of a product unde exclusive use of the This product is un provided that you 1. Submit and sec 3(c)(5) such data;	accepted by the Registration Day ns product always refer to the a formation furnished by the l under the Federal Insection no way to be construed as gency. In order to protect he by at any time suspend or co the Act. The acceptance of r this Act is not to be constru- ne name or to its use if it has acconditionally registered in	Asion prior to use of above EPA registration is registrant, the a cide, Fungicide and an endorsement health and the en- cancel the registration trued as giving the as been covered b n accordance with for registration of s all registrants of	the label in comme on number bove named pes nd Rodenticide A or recommenda vironment, the A ation of a pestici nection with the registrant a rig by others. h FIFRA section to of your product u of similar product	rce. In any ticide is Act. tion of this Administrator, de in registration ght to 3(c)(5) ander FIFRA ts to submit	
Correspondence on the On the basis of inf hereby registered Registration is in product by the Ag on his motion, ma accordance with the of a product unde exclusive use of the This product is un provided that you 1. Submit and sec 3(c)(5) such data;	Accepted by the Registration Day its product always refer to the a formation furnished by the l under the Federal Insection no way to be construed as gency. In order to protect he by at any time suspend or con- the Act. The acceptance of r this Act is not to be constru- ne name or to its use if it has acconditionally registered in the the Agency required and submit acceptable res- and reference of the table res- and submit acceptable res- and submit acceptable res- and submit acceptable res-	Asion prior to use of above EPA registration is registrant, the a cide, Fungicide and an endorsement health and the en- cancel the registration trued as giving the as been covered b n accordance with for registration of s all registrants of	the label in comme on number bove named pes nd Rodenticide A or recommenda vironment, the A ation of a pestici nection with the registrant a rig by others. h FIFRA section to of your product u of similar product	rce. In any ticide is Act. tion of this Administrator, de in registration ght to 3(c)(5) ander FIFRA ts to submit	

Notice of Pesticide Registration Liquid Copper Sulfate EPA Reg. No. 88911-1 Page 2 of 2

- 2. Make the following change to the label:
  - a. Change the product registration number to "EPA Reg. No. 88911-1"
- 3. Submit one copy of the revised final printed label for the record before the product is released for shipment.

Your release for shipment of the product constitutes acceptance of these conditions.

A copy of the label stamped "Accepted" is enclosed for your records.

# Enclosure:

Label stamped "Accepted"

ACCEPTE FEB 1 3 2013 Under the Federal Insecticide. Fungicide. and Rodenticide Act.

EPA Reg.

d. for the pesticide

Eagle Labs, Inc. [Company Logo]

# LIQUID COPPER SULFATE

Intended for Industrial Use Only

Active Ingredient:	
Copper sulfate pentahydrate (CAS# 7758-99-8)* 25	5.0%
Other Ingredients:	<u>5.0%</u>
<b>TOTAL:</b> 10	0.0%

\*Metallic copper equivalent = 6.4%

# KEEP OUT OF REACH OF CHILDREN DANGER

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

See side panel for specific pesticide use directions. See [Side] [Back] Panel for [Additional Precautionary Statements and First Aid]

FIRST AID						
IF IN EYES:	• Hold eye open and rinse slowly and gently with water for 15-20					
	minutes.					
	• Remove contact lenses if present, after the first 5 minutes, and then					
	continue rinsing.					
	Call a poison control center or doctor for treatment advice.					
IF ON SKIN OR	Take off contaminated clothing.					
<b>CLOTHING:</b>	• Rinse skin immediately with plenty of water for 15-20 minutes.					
	• 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.					
	• Avoid alcohol.					
	• 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 INHALED:	Move person to fresh air.					
	• If person is not breathing, call 911 or an ambulance, and then give					
	artificial respiration, preferably mouth-to-mouth if possible.					
	Call a poison control center or doctor for treatment advice.					
treatment. For emergency in	or label with you when calling a poison control center or doctor, or going for formation call the National Pesticides Information Center at 1-800-858-7378, Time (PT), Monday thru Friday. During other times, call the poison control					
	mucosal damage may contraindicate the use of gastric lavage. Contact with					
copper sulfate may result in	conjunctivitis and corneal ulceration of the eyes, dermatitis and burns of the					
skin. Poisoning may occur v	ia absorption through abraded skin.					
EPA Reg. No.	EPA Est. No. Net Contents: Batch/Lot No. Manufactured by:					

EAGLE LABS, INC., P.O. BOX 645, DESOTO, TX 75123

[Bracketed text denotes alternate marketing language and use directions]

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

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

### Personal Protective Equipment (PPE):

Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, PVC and viton. If you want more options, follow the instructions for category C on an EPA chemical-resistance category selection chart. Mixers, loaders, applicators and other handlers must wear the following:

- Coveralls over long-sleeved shirt and long pants.
- Chemical resistant gloves made of any waterproof material, goggles or face shield, and chemical resistant footwear with socks.
- When mixing and loading wear a chemical resistant apron.

Wash outside of gloves before removing. Follow the 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 materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

## User Safety Recommendations:

User should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. User should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

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

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

#### ENVIRONMENTAL HAZARDS

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

Certain water conditions including low pH ( $\leq 6.5$ ), 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.

#### **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 requirements specific to your State, consult the agency responsible for pesticide regulations.

### **PRODUCT INSTRUCTIONS**

Water hardness, temperature of the water, the type and amount of vegetation to be controlled, and the amount of water flow are to be considered in using Copper Sulfate to control algae. Begin treatment soon after plant growth has started. If treatment is delayed until a large amount of algae is present, larger quantities of Copper Sulfate will be required. Algae are difficult to control with Copper Sulfate when water temperatures are low or water is hard. Larger quantities of Copper Sulfate will be required to kill and control algae in water which is flowing rather than in a body of stagnant water. If possible, curtail the flow of water before treatment and hold dormant for approximately three (3) days after treatment or until the algae have begun to die. It is usually best to treat algae on a sunny day when the heavy mats of filamentary algae are most likely to be floating on the surface where it can be sprayed directly. If there is some doubt about the concentration to apply, start with a lower concentration and increase this concentration until the algae is killed or the maximum allowable use rate is reached.

Treatment of algae can result in oxygen loss from decomposition of dead algae. This loss can cause fish suffocation. Therefore, to minimize this hazard, treat one-third to one-half of the water area in a single operation and wait 14 days between treatments. Begin treatments along the shore and proceed outward in bands to allow fish to move into untreated water. NOTE: if treated water is to be used as a source of potable water, the metallic copper applied must not exceed 1 ppm (4 ppm copper sulfate pentahydrate).

CALCULATIONS FOR THE AMOUNT OF WATER IMPOUNDED AND FOR THE AMOUNT OF LIQUID COPPER SULFATE TO BE USED: Calculate water volume as follows: 1) Obtain surface area by measuring of regular shaped ponds or mapping of irregular ponds or by reference to previously recorded engineering data or maps. 2) Calculate average depth by sounding in a regular pattern and taking the mean of these readings or by reference to previously obtained data. 3) Multiply surface area in feet by average depth to obtain cubic feet of water volume. 4) Multiply surface area in acres by average depth in feet to obtain total acre-feet of water volume.

CALCULATE WEIGHT OF WATER TO BE TREATED AS FOLLOWS: 1) Multiply volume in cubic feet by 62.44 to obtain total pounds of water, or 2) Multiply volume in acre feet by 2,720,000 to obtain pounds of water.

CALCULATIONS OF ACTIVE INGREDIENT TO BE ADDED: To calculate the amount of Liquid Copper Sulfate needed to achieve the labeled concentration, multiply the weight of water by the label concentration of Liquid Copper Sulfate. Since labeled concentrations are normally given in parts per million (ppm), it will first be necessary to convert the value in parts per million to a decimal equivalent. For example, 8 ppm is the same as 0.000008 when used in this concentration. Therefore, to calculate the amount of Liquid Copper Sulfate to treat 1 acre-foot of water with 8 ppm Liquid Copper Sulfate (LCS), the calculation would be as follows:

0.000008 x 2,720,000 = 21.75 lbs x 1 gal LCS/9.85 = 2.2 gal LCS

## **SPECIFIC INSTRUCTIONS**

The following applies for waters segregated for Municipal Water Utilities in treatment of potable water only.

Dosages to control algae in impounded waters, ponds, and reservoirs should be calculated per million gallons as follows:

1 MMg x 8.344 pounds per gallon x 8 ppm = 66.75 pounds liquid copper sulfate per MMg raw water (maximum use) x 1 gal per 9.85 pounds = 6.75 gallons Liquid Copper Sulfate per MMg raw water. This is the equivalent of 8 parts per million (ppm) Liquid Copper Sulfate which delivers 0.05 ppm metallic copper.

For flowing systems such as raw water intake, use same dosage ratio so that the maximum usage remains 6.75 gallons Liquid Copper Sulfate per day per MMg per day raw water.

Successful algae treatment can be accomplished at much lower dosages. Treatment dosages can be as low as 1/20 the maximum or 0.68 gallon Liquid Copper Sulfate per MMg water.

To control algae in impounded waters, lakes, ponds and reservoirs: There are several methods to apply Liquid Copper Sulfate to impounded water. The most satisfactory and simplest method is to pump injection at the intake pipes located between irrigation canal and reservoir. Bulk Copper sulfate tanks should be metered and regulated to coincide with the start of the irrigation pump. Dosage not to exceed 8 ppm Liquid Copper Sulfate which delivers ½ ppm active copper.

## LIQUID COPPER SULFATE (LCS) REQUIRED FOR TREATMENT OF DIFFERENT GENERA OF ALGAE

The genera algae that are listed below are commonly found in waters of the United States. Use the lower labeled rate in soft waters (less than 50 ppm, methyl orange alkalinity) and the higher concentration in hard water (above 50 ppm alkalinity). Always consult State Fish and Game Agency before applying this product to municipal waters

ORGANISMS	1-2 ppm LCS*	2-4 ppm LCS*	4-6 ppm LCS*	6-8 ppm LCS*
Cyanophyceae	Anabaena	Cylidrospermum	Nostoc	Calothrix
(Blue-green)	Anacystis	Oscillatoris	Phormidium	Symploca
	Aphanizomenon	Plectonema		
	Gloeotrichia			
	Gomphosphaeria			
	Polycystis			
	Rivularia			
Chlorophyceae	Closterium	Botryococcus	Chlorelia	Ankistrodesmus
(Green)	Hydrodictyon	Cladophora	Crucigenia	Chara
	Spyrogyra	Coelastrum	Desmidium	Nitella
	lothrix	Draparnaldia	Golenkinia	Scenedesmus
		Enteromorpha	Oocystis	
		Gloeocystis	Palmella	
		Microspora	Pithophora	
		Tribonema	Staurastrum	
		Zygnema	Tetraedron	
Diatomaceae	Asterionella	Gomphonema	Achnanthes	
(Diatoms)	Fragilaria	Nitzchia	Cymbella	
	Melosira	Stephanodiscus	Nudum	
	Navicula	Synedra		
		Tabellaria		
Protozoa	Dinobryon	Ceratium	Chlamydomonas	Eudorina
(Flagellates)	Synura	Cryptomonas	Hawmatococcus	Pandorina
	Uroglena	Euglena	Peridinium	
	Volvox	Glenodinum		
		Mallomonas		

\*1-2 ppm LCS (0.0625-0.125 ppm active copper) = 0.28 - 0.55 gals/acre ft.

\*2-4 ppm LCS (0.125-0.25 ppm active copper) = 0.55 - 1.10 gals/acre ft.

\*4-6 ppm LCS (0.25-0.375 ppm active copper) = 1.10 - 1.56 gals/acre ft.

\*5-8 ppm LCS (0.3125-0.5 ppm active copper) = 1.65 - 2.21 gals/acre ft.

### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Keep pesticide in original container. Do not put concentrate or dilutions of concentrate in food or drink containers.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess 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.

**CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container % 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, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned stay out of smoke.