### Specimen Label

# Captain\* Liquid Copper Algaecide



For control of planktonic and filamentous algae and certain vascular plants in potable water sources, lakes, rivers, reservoirs, and ponds, slow-flowing or quiescent water bodies, crop and non-crop irrigation systems (canals, laterals, and ditches), fish, golf course, ornamental, swimming, and fire ponds, and fish hatcheries.

Active Ingredient	
Copper Carbonate <sup>†</sup> 15.	9%
Other Ingredients84.	1%
TOTAL	0%
<sup>†</sup> Metallic copper equivalent, 9.1%.	

## 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.)

### **Precautionary Statements**

### **Hazards to Humans and Domestic Animals**

**DANGER:** Corrosive. Causes irreversible eye damage and skin irritation. Due to corrosive nature, may be harmful or fatal if swallowed. Do not get in eyes, on skin, or on clothing. Wear goggles, face shield or safety glasses, protective clothing and rubber gloves when handling. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

### **Environmental Hazards**

Fish toxicity is dependent on the hardness of the water. In soft water, trout and other species of fish may be killed at application rates recommended on this label. Do not use in water containing trout or other sensitive species if the carbonate hardness of water is less than 50 ppm. Fish toxicity generally decreases when the hardness of water increases. Consult State Fish and Game

Agency or other responsible Agency before applying this product to public waters. Do not treat more than one-half of lake or pond at one time to avoid depletion of oxygen levels due to decaying vegetation.

Do not apply undiluted solution of this product directly to, or otherwise permit it to come into contact with any desirable plants as injury may result. Wash spray equipment thoroughly before and after each application.

FIRST AID		
If in eyes	<ul> <li>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.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
If on skin or clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15 - 20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
If swallowed	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>	
If inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>	
poison control of In case of emerg	ct container or label with you when calling a enter or doctor, or going for treatment. gency endangering health or the environment oduct, call <b>INFOTRAC</b> at <b>1-800-535-5053</b> .	

**Note to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage.

Refer to inside of label booklet for additional precautionary information and Directions for Use.

Notice: Read the entire label before using. Use only according to label directions. Before buying or using this product, read "Warranty Disclaimer," "Inherent Risks of Use" and "Limitation of Remedies" inside label booklet.

For product information, visit our web site at www.sepro.com.

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### **Directions for Use**

It is a violation of Federal Law to use this product in a manner inconsistent with its label directions.

### GENERAL INFORMATION

Captain Aquatic Algaecide is a double chelated copper formulation that is effective in controlling a broad range of algae.

This product has also been proven effective in controlling the rooted aquatic plant, Hydrilla verticillata. The ethanolamines in this product prevent the precipitation of copper with carbonates and bicarbonates in the water. The application site is defined by this label as the specific location where Captain is applied. In slow moving and flowing canals and rivers, the application site is defined by this label as the target location for plant control. Use the lower recommended rate in Soft water (less than 50 ppm alkalinity) and the higher concentration in hard water (above 50 ppm alkalinity).

#### **Water Use Restrictions**

If treated water is a source of potable water, the residue of copper must not exceed 1 ppm. Waters treated with this product may be used for swimming, fishing, drinking, livestock watering or irrigating turf, ornamental plants or crops immediately after treatment. Always consult your State Fish and Game Agency or other responsible agency before applying this product to public waters.

### Surface Spray/Injection Algaecide Application

For effective control, proper chemical concentration should be maintained for a minimum of three hours contact time. The application rates in the chart are based on static or minimal flow situations. Where significant dilution or loss of water from unregulated inflows or outflows occur (raceways) within a three-hour period, chemical may have to be metered in.

Identify the algae growth present as one of the following types: Planktonic (suspended), Filamentous (mat-forming), or Chara/Nitella.

Determine the surface acreage (1 acre = 43,560 sq. ft.) and average depth of infested area. Refer to chart (next column) to determine gallons of this product to apply per surface acre.

### Application Rates (Gallons per Surface Acre)

Algae	Dosage	Rates		
Type or species	PPM Copper	Gallons/ acre foot	Treatment Comments	
Planktonic	0.2	0.6 - 1.5	Apply lower dosage rates on light infestations. Use higher rates on heavy blooms and where algae masses are clumped and accumulated.	
Filamentous	0.2 - 0.6	0.6 - 1.8	Apply lower dosage rates on early season, light infestations or treatment of regrowth. Apply higher rates on surface mats and species such as Pithophora, Cladophora, Lyngbya, and Hydrodictyon.	
Chara/Nitella	0.4 - 0.8	1.2 - 2.4	Apply lower dosage rates on new infestations or early season growth. Apply higher rates on older, established calcified plants. Apply as close to top of plant growth as possible.	

For dense infestations of filamentous algae or where the species of hydrodictyon, cladophora or pithophora are present, use the highest rate in the rate range.

For planktonic (suspended) algae and free-floating filamentous algae mats, application rates should be based on treating only the upper 3 to 4 feet of water where algae is growing. Under conditions of heavy infestation treat only 1/3 to 1/2 of the water body at a time to avoid fish suffocation caused by oxygen depletion from decaying algae. Before applying, dilute the required amount of this product with enough water to ensure even distribution with the type of equipment being used. For most effective results apply under calm and sunny conditions when water temperature is at least 60° F. Break up floating algae mats before spraying or while application is being made. Use hand or power sprayer adjusted to rain-sized droplets. Spray shoreline areas to avoid trapping fish.

### **Herbicide Application (for Hydrilla Control)**

Control of Hydrilla verticillata can be obtained from copper concentrations of 0.4 to 1.0 ppm resulting from this product's treatment. Choose the application rate based upon stage and density of Hydrilla growth and respective water depth from the chart below.

### Application Rates (Gallons per Surface Acre)

Growth Stage/ Relative Density	ppm Copper	Depth in Feet					
		1	2	3	4	5	6
Early Season/ Low Density	0.4	1.2	2.4	3.6	4.8	6.0	7.2
	0.5	1.5	3.0	4.5	6.0	7.5	9.0
	0.6	1.8	3.6	5.4	7.2	9.0	10.8
Midseason/ Moderate Density	0.7	2.1	4.2	6.3	8.4	10.5	12.6
	0.8	2.4	4.8	7.3	9.6	12.0	14.4
Late Season/ High Density	0.9	2.7	5.4	8.1	10.8	13.5	16.2
	1.0	3.0	6.0	9.0	12.0	15.0	18.0

Application rates for depths greater than six feet may be obtained by adding the rates given for the appropriate combination of depths. Application rates must not result in excess of 1.0 ppm copper concentration within treated water.

#### **Diquat Tank-Mix**

On waters where enforcement of use restrictions for recreational, domestic and irrigation use are acceptable, the following mixture can be used as an alternative Hydrilla control method.

Tank-mix 3 - 1/3 gallons of this product with 2 gallons of Diquat.

Apply mixture at the rate of 5 - 1/3 gallons per surface acre. Dilute with at least 9 parts water and apply as a surface or underwater

injection. Observe all cautions and restrictions on the labels of

both products used in this mixture.

### DRIP SYSTEM APPLICATION

### For Use in Potable Water and Irrigation Conveyance Systems

This product should be applied as soon as algae or Hydrilla begins to interfere noticeably with normal delivery of water (clogging of lateral headgates, suction screens, weed screens, and siphon tubes). Delaying treatment could perpetuate the problem causing massing and compacting of plants. Heavy infestations and low flow may cause poor chemical distribution resulting in unsatisfactory control. Under these conditions increasing water flow rate during application may be necessary.

Prior to treatment it is important to accurately determine water flow rates. In the absence of weirs, orifices, or similar devices, which give accurate waterflow measurements, volume of flow may be estimated by the following formula:

Average Width (feet) x Average Depth x Velocity\* (feet/second) x 0.9 = Cubic Feet per Second (C.F.S.)

\*Velocity is the time it takes a floating object to travel a given distance. Dividing the distance traveled (feet) by the time (seconds) will yield velocity (feet/second). This measurement should be repeated at least three times at the intended application site and then averaged.

After accurately determining the water flow rate in C.F.S. or gallons/minute, find the corresponding drip rate in the chart below.

Water F	Flow Rate	Chemical Drip Rate		
C.F.S.	Gallon/Minute	Quart/Hour	MI/Minute	Fl. Oz./Minute
1	450	1	16	0.5
2	900	2	32	1.1
3	1350	3	47	1.6
4	1800	4	63	2.1
5	2250	5	79	2.7

Calculate the amount of product needed to maintain the drip rate for a treatment period of 3 or more hours by multiplying quart/hr. x 3; ml / min. by 180; or fl. oz. / min. x 180. Dosage will maintain 1.0 ppm copper concentration in the treated water for the treatment period. Introduction of the chemical should be made in the channel at weirs or other turbulence-creating structures to promote the dispersion of the chemical.

Pour the required amount of this product into a drum or tank equipped with a brass needle valve and constructed to maintain a constant drip rate. Use a stopwatch and appropriate measuring container to set the desired drip rate. Readjust accordingly if the canal flow rate changes during the treatment period. This product can also be applied by using metering pumps that adjust to flow rates in the canal.

Results can vary depending upon species and density of algae and vegetation, desired distance of control and flow rate, and impact of water quality on copper residues and efficacy. Consult an Aquatic Specialist to determine optimal use rate and treatment period under local conditions. Periodic maintenance treatments may be required to maintain seasonal control.

### **General Treatment Notes**

The following suggestions apply to the use of this product as an algaecide or herbicide in all approved use sites. For optimum effectiveness:

- Apply early in the day under calm, sunny conditions when water temperatures are at least 60° F.
- Treat when growth first begins to appear or create a nuisance, if possible.
- Apply in a manner that will ensure even distribution of the chemical within the treatment area.
- Re-treat areas if regrowth begins to appear and seasonal control is desired. Allow one to two weeks between consecutive treatments.
- Allow seven to ten days to observe the effects of treatment (bleaching and breaking apart of plant material).
- Use a high-pressure surface spray application to break up dense floating algal mats.

#### **Notice**

Read and follow label directions carefully.

Contents may cause bluing where marcite has been etched.

### **Permits**

Some states may require permits for the application of this product to public waters. Check with your local authorities.

### Storage and Disposal

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

**Storage Instructions:** This product should be stored only in the original container and placed in a cool and dry locked storage area. Keep away from other pesticides, fertilizer, food, and feed to prevent cross-contamination. In case of spillage, dilute with water and wash up with water.

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

**Pesticide Disposal: Do not reuse empty container.** Triple rinse. Then offer for recycling, or reconditioning, or puncture and dispose of in a sanitary landfill, or incinerate, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

### **Warranty Disclaimer**

SePRO Corporation warrants that the product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below.

SEPRO CORPORATION MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

### **Inherent Risks of Use**

It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of SePRO Corporation as the seller. All such risks shall be assumed by the buyer.

### **Limitation of Remedies**

The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories) shall be limited to, at SePRO Corporation's election, one of the following:

- Refund of purchase price paid by buyer or user for product bought, or
- 2. Replacement of amount of product used.

SePRO Corporation shall not be liable for losses or damages resulting from handling or use of this product unless SePRO Corporation is promptly notified of such losses or damages in writing. In no case shall SePRO Corporation be liable for consequential or incidental damages or losses.

The terms of the *Warranty Disclaimer* above and this Limitation of Remedies can not be varied by any written or verbal statements or agreements. No employee or sales agent of SePRO Corporation or the seller is authorized to vary or exceed the terms of the *Warranty Disclaimer* or *Limitations of Remedies* in any manner.