CUTRINE® PLUS
Algaecide

FOR USE IN:
LAKES; POTABLE WATER RESERVOIRS; PONDS; FISH HATCHERIES AND RACEWAYS

ACTIVE INGREDIENTS:
Copper Ethanolamine Complex, Mixed (Mono CAS# 14215-52-2 and Tri CAS# 80027-59-6).................. 27.5%

OTHER INGREDIENTS.................................................. 72.5%

TOTAL.......................................................... 100.0%

Metallic copper equivalent, 9%. Contains 3.93 lbs. of elemental copper per gallon

KEEP OUT OF REACH OF CHILDREN

CAUTION
Sólo si entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand label, find someone to explain it to you in detail.)

ENVIRONMENTAL HAZARDS: Do not use in waters containing Koi and hybrid goldfish. Not intended for use in small volume, garden pond systems.

FISH AND AQUATIC ORGANISMS: 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 hazard, do not treat more than ⅓ of the water body to avoid depletion of oxygen due to decaying vegetation. Wait at least 10 to 14 days between treatments. Begin treatment along the shore and proceed outwards in bands to allow fish to move into untreated areas. In regions where ponds freeze in winter, treatment should be done 6 to 8 weeks before expected freeze time to prevent masses of decaying algae under an ice cover. 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. This pesticide is toxic to some 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. Do not contaminate water when disposing of equipment wash-waters or rinsates. Certain water conditions including low pH (≤ 6.5) low dissolved organic carbon (DOC) levels (< 0.3 mg/L or lower), and "soft" waters (i.e., alkalinity less than 50 mg/L), increases the potential acute toxicity to non-target aquatic organism. Potable water sources treated with copper products may be used as drinking water only after proper additional potable water treatments. Trout and other species of fish may be killed at application rates recommended on the label, especially in soft or acidic waters as described above. Do not contaminate water when disposing of equipment wash-waters or rinsates.

To protect listed species in California, contact your County Agricultural Commissioner or refer to the Department of Pesticide Regulation's PRESCRIBE Internet Database:
http://www.cdpr.ca.gov/docs/endspec/prescribcert/
STORAGE & DISPOSAL:
Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

PESTICIDE STORAGE: Keep container closed when not in use. Keep pesticide in original container. Do not put concentrate or dilute into food or drink containers. Do not reuse or refill container. Do not contaminate feed, feedstuffs, or drinking water. Do not store or transport near food or feed.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse container. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinse into application equipment or a mix tank or store rinse 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 approved landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. Consult Federal, State or local authorities for approved alternative procedures.

SKU No. 390104A
Part No. 591000

Manufactured for: Applied Biochemists
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1-800-558-5106

Pat. No. 3,930,834
EPA Reg. No. 6959-10
EPA Est. No. 42201-GA-1

This product is a liquid copper-based formulation containing ethanoamine chelating agents to prevent the precipitation of copper with carbonates and bicarbonates in the water. This product effectively controls a broad range of algae including: Planktonic (suspended) forms such as the Cyanobacteria (Microcystis, Anabaena & Aphanizomenon), Green algae (Raphidiocelis & Cosmarium) Golden algae (Pyeocystis & Pyrocystis) and diatoms (Navicula & Fragilaria); Filamentous (mat-forming) forms such as the Green Algae (Spirogyra, Chlorella, Ulothrix & Rhizothemum) and Benthic (bottom-growing) forms such as Chara and Nleftella. Waters treated with this product may be used for swimming, fishing, further potable water treatment, livestock watering or irrigating turf, ornamental plants or crops after treatment.

DIRECTIONS FOR USE
It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. For applications in waters destined for use as drinking water, those waters must receive additional and separate potable water treatment. Do not apply more than 1.0 ppm as metallic copper in these waters. Read entire label and use strictly in accordance with precautionary statements and directions.

GENERAL APPLICATION RESTRICTIONS: Do not apply this product in a manner that will contact adults, children, or pets, either directly or through drift. Some states may require permits for the application of this product to public waters. Check with your local authorities. Do not enter or allow others to enter until application of product has been completed.

PRE-TREATMENT CONSIDERATIONS: In Ponds (Farm, Fire, Fish, Golf Course, Irrigation, Ornamental, Stormwater, Swimming), Small Lakes, Fish Hatcheries, Aquaculture Facilities, treatment with this product should be started when visible, actively growing algae and susceptible plants appear in spring, preferably before significant surface accumulations occur. Aeration and/or aeration system, where available, should be in operation at the time of treatment.

Spray Drop Size Management

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and the method of application (e.g., ground, aerial, airlift, chemigation) can influence product drift. The application rate may be the factors that must be adjusted properly 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 spraying 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 down wind.

Temperature Inversion: If applying at wind speeds less than 3 mph, the application 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 ground application equipment must be properly maintained and calibrated using appropriate carriers or surfactants, 

GENERAL INFORMATION

SURFACE SPRAY / INJECTION
SLOW-FLOWING OR QUIESCENT WATER BODIES
ALGAEICIDE APPLICATION
For effective control, proper chemical concentration must 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 (rarely) within a three hour period, chemical may have to be metered in.

1. Identify the form of algae growth present as one of the following types: Planktonic (suspended), Filamentous (mat forming), or Benthic (Chara/Nitella) and estimate the density of growth (Low, Medium, High). Use Table 1 Copper Concentration to select the desired PPM (Parts per Million) Copper needed, based on the algal form and density.

Table 1 - Copper Concentration

<table>
<thead>
<tr>
<th>Form of Algal Growth</th>
<th>Density of Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Planktonic</td>
<td>0.2</td>
</tr>
<tr>
<td>Filamentous</td>
<td>0.2</td>
</tr>
<tr>
<td>Benthic</td>
<td>0.4</td>
</tr>
</tbody>
</table>

2. Refer to the Table 2 - Product Application Rate and determine gallons of product needed per acre-foot corresponding to the desired PPM concentration determined in step #1.

Table 2 - Product Application Rate (Gallons)

<table>
<thead>
<tr>
<th>Copper Concentration</th>
<th>0.2</th>
<th>0.3</th>
<th>0.4</th>
<th>0.5</th>
<th>0.6</th>
<th>0.7</th>
<th>0.8</th>
<th>0.9</th>
<th>1.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gallon per Acre-Ft</td>
<td>0.6</td>
<td>0.9</td>
<td>1.2</td>
<td>1.5</td>
<td>1.8</td>
<td>2.1</td>
<td>2.4</td>
<td>2.7</td>
<td>3.0</td>
</tr>
</tbody>
</table>

3. Determine acre-feet within the intended treatment area (area of infestation) by measuring width, length plus averaging several depth readings within the treatment area. Use the formula:

\[ \text{Volume} = \text{Length} \times \text{Width} \times \text{Avg. Depth} \times \text{Acre-Ft} \]

4. Multiply Acre-Ft calculated in step #3 times the gallons of this product determined in step #2 to determine number of gallons of Cutox Plus required for the intended treatment area.

5. Before applying, dilute the required amount of product with enough water to ensure even distribution with the type of equipment being used. Typical dilution range is 9:1 when using backpack-type sprayer or up to 50:1 when using water pump equipment or large tank sprayers.

6. Break up floating algae mats manually before spraying or with force of power sprayer if one is used. Use hand or power sprayer adjusted to rain-splashed droplets to cover area evenly taking water depth into consideration.

If using underwater injection systems such as drop hoses or bollards with weighted drop hoses, ensure boat pattern is uniform throughout treatment area. Spray shoreline areas first to avoid trapping fish.

Clean spray equipment by flushing with clean water after treatment and follow STORAGE AND DISPOSAL instructions on the label for empty or remaining partial containers.

OTHER TREATMENT FACTORS AND CONSIDERATIONS:

- Calm and sunny conditions when water temperature is at least 60°F will usually expedite control results.
- Effective control of algae requires direct contact with all cells throughout the water column, since these plants do not have vascular systems to transport copper from cell to cell.
- Visible reduction in algae growth should be observed in 24 to 48 hours following application with full infestation and water temperature.
- Re-treat areas if re-growth or new growth begins to appear and seasonal control is desired. Identify new growth to re-check required copper concentration that may be needed for control. Apply treatment along the shore and proceed outwards in bands to allow fish to move into untreated areas.
- No more than 1/3 of the water body may be treated at one time. (Refer to Environmental Hazards for additional guidance)
- The minimum retreatment interval between consecutive treatments is 14 days.

CUTINE® PLUS Granular Algaeicde may be used as an alternative in low volume flow situations, spot treatments or treatment of bottom-growing algae in deep water.

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

Cutox is a trademark of Lonza or its affiliates.