UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

December 18, 2020

Joanna Holcombe
Regulatory Specialist
Applied Biochemists, An Arch Chemicals, Inc. Business
1200 Bluegrass Lakes Pkwy
Alpharetta, GA 30004

Subject: Registration Review Label Mitigation for Coppers Compounds
Product Name: Clearigate EC9
EPA Registration Number: 8959-62
Application Dates: March 4, 2019
Decision Numbers: 557067

Dear Ms. Holcombe:

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 Coppers 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.

A copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions about this letter, please contact Jaclyn Pyne by phone at 703-347-0445, or via email at pyne.jaclyn@epa.gov.

Sincerely,

Linda Arrington, Branch Chief
Risk Management and Implementation Branch 4
Pesticide Re-Evaluation Division
Office of Pesticide Programs

Enclosure

Note to reviewer:
[Items in brackets [AAA] are optional and may/may not be included on final label]
{Items in braces {AAA} are for information purposes and will not appear on final label}

Clearigate EC9

COPPER	GROUP	NOT CLASSIFIED	HERBICIDE

ACTIVE INGREDIENTS:
Copper ethanolamine complex, mixed
(Mono CAS# 14215-52-2 and Tri CAS# 82027-59-6)* 11.8%
INERT INGREDIENTS: 88.2%
TOTAL 100.000%

* Metallic copper equivalent, 3.8%
Contains 0.31 lbs. of copper per gallon

KEEP OUT OF REACH OF CHILDREN
[MANTÉNGASE FUERA DEL ALCANCE DE LOS NIÑOS]

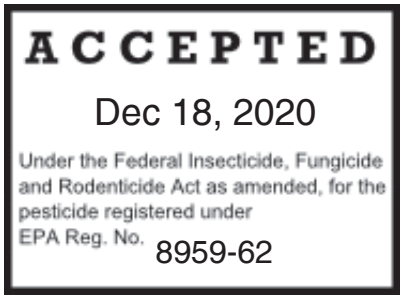
DANGER [PELIGRO]

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.]

{Note to reviewer: Although this product has a "Danger" signal word, as per the EPA label review manual "The Agency may permit reasonable variations in the placement of the First Aid statement as long as the reference statement, "See First Aid (or Statement of Practical Treatment) on (identify appropriate panel)" appears on the front panel." If the First Aid Statements are placed on the front panel of the final graphic label, the statement below will only refer to the Precautionary Statements:}
[See [side][back][right][left][inside][attached] [panel][label][booklet] for Precautionary [and First Aid] Statements.]
{or}
Read all Precautionary Statements [on] [back][side] [panel][inside booklet] before use.

Sold by:
Applied Biochemists
1400 Bluegrass Lakes Pkwy
Alpharetta, GA 30004

EPA Reg. No. 8959-62
[Superscript Used in Lot Number]
EPA Est. No. Xxxxx-yy-zz
NET CONTENTS:



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, then continue rinsing. Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING: 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 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 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, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice. 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 the use of gastric lavage. Measures against circulatory shock as well as oxygen and measures to support breathing manually or mechanically may be needed. If persistent, convulsions may be controlled by the cautious intravenous injection of a short-acting barbiturate drug.
IN CASE OF EMERGENCY CALL: 1-800-654-6911

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
DANGER. Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed, absorbed through skin, or inhaled. Do not get in eyes, on skin, or on clothing. Avoid breathing vapor or spray mist.

Personal Protective Equipment (PPE)
Mixers, loaders, applicators, and other handlers must wear the following:
[•] Long-sleeved shirt and long pants,
[•] Shoes and socks.
[•] protective eyewear
[•] waterproof gloves

USER SAFETY REQUIREMENTS
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.

USER SAFETY INSTRUCTIONS
Users must wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing. Wash outside of gloves before removing.

ENVIRONMENTAL HAZARDS:
Fish Advisory Statement: 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.

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

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/prescint.htm.

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

For terrestrial use: 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 washwater or rinsate.

DIRECTIONS FOR USE
It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

RESISTANCE MANAGEMENT
Apply 8.7 gallons of product per acre-foot (2.69 pounds active ingredient per acre-foot).
Do not apply more than 69.6 pounds of product per acre-foot per year (21.5 pounds active ingredient per acre-foot per year).
Do not apply more than 21.5 pounds active ingredient per acre-foot per year.
Do not make applications less than 14 days apart.

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 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.

Report any incidence of non-performance of this of this product against a particular weed species to your [registrant] retailer, representative or call 1-800-558-5106. If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemical means to remove escapes, as practical, with the goal of preventing further reproduction.

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 mechanisms of action.
- [•] 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).

Local resistant weeds:
Contact your local sales representative, local water management agency, or extension agent to find out if suspected resistant weeds to this mechanism of action 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 action for each target weed.

AQUATIC USES:
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 (excluding water infrastructure and constructed conveyances such as drainage canals, ditches and pipelines or intakes and aqueducts for drinking water or irrigation use) 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 in to untreated areas. 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 (≤6.5), low dissolved organic carbon (DOC) levels (3.0mg/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.

PRODUCT APPLICATION RESTRICTIONS:
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 State or Tribe agency responsible for pesticide regulation. Do not enter or allow others to enter until application of product has been completed. Do not apply more than 1.0 ppm as metallic copper in these waters.

PRE-TREATMENT CONSIDERATIONS:
The following suggestions apply to the use of this product in all approved use sites:

- For best results apply during calm and sunny conditions with 8 to 10 hours of daylight remaining, when water temperature is at least 60°F.
- Treat when growth first begins to appear or create a nuisance, as evidenced by initial taste and odor complaints, high cell counts or chlorophyll *a* concentrations, high MIB or geosmin concentrations, visible surface scum formations, low Secchi disk readings, significant daily fluctuations in dissolved oxygen, and/or sudden increases in pH. Monitoring these parameters to optimize the timing of treatments and reducing the amounts of product needed for seasonal control.
- Identify primary nuisance species to determine the most accurate dosage rates.
- Apply in a manner that will ensure even distribution of the chemical within the treatment area. Effective control of algae requires direct contact with all cells throughout the water column, since these plants do not have vascular systems to transport active ingredient from cell to cell.
- Visible reduction in algae growth should be observed in 24 to 48 hours following application.
- Wait at least 2 days to re-treat areas if re-growth or new growth begins to appear and seasonal control is desired. Identify the new growth to re-check required copper concentration that may be needed for control.

The following suggestions apply to the use of this product in flowing water:

- Maintain suitable contact time through proper concentration or additional metering sites to achieve effective aquatic plant control.
- Level of control is also affected by type of growth present, degree of infestation, water temperature and weather conditions during and following treatment.

Pre-Application Dose Determination: 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.

STATIC WATER TREATMENT

1. Determine species and/or type of vegetation present.

2. Use **Table 1** to determine the [product name] [this product] dosage rate.

Table 1. Product Dosage Rate by Type

Species or Type of Vegetation	**PPM Copper**	**Amount of Product Required** (gal/acre-ft)	**Copper lbs./acre-ft**	**Dilution** (% Spray Solution V/V)	**Treatment Comments**
Colonial Diatoms[1] [*Navicula & Fragilaria*]	0.3	1.8 - 2.6	0.55 - 0.80	5% - 10%	Diatom treatments may require treating the entire water volume and repeat applications may be needed.
Planktonic Algae	0.5	0.9 - 4.4	0.27 – 1.36	1.5% - 5%	Apply lower dosage rates on light infestations. Use higher rates on heavy blooms and where algae masses are clumped and accumulated.
Filamentous Algae	0.6	1.8 - 5.3	0.55 – 1.64	5% - 10%	Apply lower dosage rates on early season, light infestations or treatment of regrowth. Apply higher rates on surface mats and coarse species such as *Pithophora*, *Cladophora* or *Lyngbya*.
Chara/Nitella	0.8	3.6 - 7.1	1.11 – 2.2	10% - 15%	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.
SUBMERGED PLANTS					
Hydrilla [*Hydrilla verticillata*]	1.0	3.6 - 8.7	1.11 – 2.69	10% - 20%	Cu lbs/acre-ft
Naiad [*Najas spp.*], Pondweeds [Po*tamogeton* spp.]	1.0	4.4 - 8.7	1.36 – 2.69		
Brazilian Elodea [*Egeria densa*]	1.0	5.4 - 8.7	1.67 – 2.69		
Water Milfoil [*Myriophyllum* spp.], Elodea [*Elodea canadensis*]	1.0	7.1 - 8.7	2.2 – 2.69		
FLOATING PLANTS					
Duckweed [*Lemna* spp.], Water Hyacinth [*Eichornia crassipes*], Giant Salvinia [*Salvinia molesta*]	0.5 - 1.0	4.4 - 8.7 gal/surface	1.36 – 2.69 Lbs./surface acre	20% - 25%	Apply lower rates in shallow water (<1 ft.). Use higher rates for large infestations in deeper water (≥1 ft.). Use a fine spray and wet plants thoroughly. Do not disturb with motor wake or paddles after treatment.

[1] Colonial diatoms are a form of algae characterized by having cell walls made of silica, a mineral substance. Certain species of diatoms grow in colonies, usually on sand or concrete surfaces, and produce gelatinous masses. Effective control has been achieved using the rates listed.

3. Determine acre-feet within the intended treatment area (area of infestation) by measuring length, width and average depth using the formula [below][*{location}*]:
   length (ft.) x width (ft.) x average depth (ft.)/43,560 = acre-feet

   Note: 43,560 sq. ft. = 1 acre-foot

4. Multiply acre-feet from step #3 times the dosage rate from step #2 to calculate the total gallons required for the treatment area.

5. The following are techniques to apply this product:
   Surface Spray Application: Prepare solution at dilution rate from **Table 1**. Ensure dilution rate will allow relatively even application throughout the intended treatment area with the type of equipment being used. Apply close to the water surface.
   Injection Application: Prepare solution at dilution rate from **Table 1**. Inject solution below the water surface through submersed hoses for treatment of submerged growth.

For effective control, proper chemical concentration contact should be maintained for a minimum of three hours. Application rates in this section are based upon static or minimum flow situations in lakes, ponds, reservoirs and inactive irrigation conveyance systems or drainage systems. Where significant inflow occurs (greater than 10% of total water volume in 24 hours), it is recommended that flow be stopped for 24 hours during and following treatment. If this is not possible, treat inflowing water in accordance with **Flowing Water Application** instructions.

TANK MIX APPLICATION

This product can be tank mixed with other herbicides to improve efficacy; and to control algae in areas where heavy algae growth may cover target submersed plant species and interfere with herbicide exposure. Do not mix concentrates in tank without first adding water. To ensure compatibility, conduct a jar test before application. This product must not be mixed with any product containing a label prohibition against such mixing and must be used in accordance with the most restrictive label limitations and precautions. Label dosage rates must not be exceeded.

To ensure compatibility, a jar test is recommend before field application of any tank mix combination.

FLOWING WATER APPLICATION

1. Accurately determine water flow rate. In the absence of weirs, orifices or similar devices which provide accurate water flow measurements, volume of flow may be estimated via the following formula:

   average width (ft.) x average depth (ft.) x velocity*(ft/sec) x 0.9 = cubic feet per second (cfs)

   *Velocity is the time it takes a floating object to travel a given distance. Dividing the distance traveled (ft) by the time (seconds) will yield velocity (ft/sec). Repeat measurement at least 3 times at the intended application site and use the average of these measurements.

2. Calculate volume of ditch, canal, lateral or receiving pond in cubic feet based upon water levels at the time of treatment by using the following formula:
   length (ft) x average width (ft) x average depth (ft) = cubic feet of water

3. Calculate turnover time (the amount of time it takes for the water in the system to be replaced by new water). Convert to hours using the following formula:

$$\frac{\text{canal volume } (ft^3)}{\text{flow rate (CFS)}} \div 3600 = \text{turnover time (hrs.)}$$

4. Use **Table 2** to determine the dosage rate

Table 2. Flowing Water Application Dosage Rate by Type			
Species or Type of Vegetation	**PPM Copper**	**Dosage Rate[1] (Qt. per CFS/Hour)**	**Dosage Rate[1] (Lbs per CFS/Hour)**
Planktonic algae	0.1 - 0.5	0.3 - 1.4	0.07 – 0.10
Filamentous algae	0.2 – 0.6	0.6 - 1.7	0.14 – 0.46
Chara/Nitella	0.4 - 0.8	1.2 - 2.3	0.31 – 0.62
Submerged weeds	0.5 - 1.0	1.4 - 2.8	0.38 – 0.77

[1] Use higher dosage range in cooler water (60°F - 70°F), under conditions of heavy growth and/or on matured plant growth. Lower dosage ranges may be used on maintenance control treatments, young plants and/or under minimal growth conditions in warmer waters (>70°F).

5. Calculate amount of product required using the dosage rate from step #4, times the flow rate from step #2, times the turnover rate from step #3.

   Product Required (qts) = Dosage Rate (qt/CFS/hr) x Flow Rate (CFS) x Turnover Time (hrs)*

   Note: If turnover time is less than 3 hrs, substitute 3 hrs. into this calculation.

   Use **Table 3** to determine the number of drip/metering application sites required (based upon turnover time). Ponds and other sites where water is stored for a calculated retention time and are fed by a single input source will require a single dripper/metering system. Treat inflowing water at the dosage rate from **Table 2** for the turnover time calculated in step #3.

Table 3. Required Drip/Metering Sites	
Turnover Time (Hrs)	**Number of Sites**
Less than 4.5	1
4.6 - 7.5	2
7.6 - 10.5	3
10.6 - 13.5	4
13.6 - 16.5	5

6. Calculate distance between drip/metering sites by using the following formula:

$$\frac{\text{Canal/Ditch/Lateral Length (ft)}}{\text{No. of Drip/Metering Sites}} = \text{Distance Between Drip/Metering Systems (ft)}$$

7. Calculate amount of product required per drip/metering site by using the following formula:

$$\frac{\text{Total Product Required (qts)}}{\text{No. of Drip/Metering Sites}} = \text{Product Required Per Site (qt)}$$

8. Calculate drip/metering duration per site by using the following formula:

$$\frac{\text{Product Required Per Site (qts)}}{\text{Dosage Rate (qt/CFS/hr) x Flow Rate (CFS)}} = \text{Drip Metering Duration (hrs) Per Site}$$

9. Calculate drip/metering rate by using the following formula to convert to fl. oz./min or mL/min.:
   Flow Rate (CFS) x Drip Rate (qt/CFS/hr) x 0.533* = Drip Rate (fl. oz/min).

   Note: 0.533 is a constant used to convert qt/hr to fl. oz./min
   METRIC CONVERSION: Drip Rate (fl. oz./min) x 29.57 =Drip Rate (mL/min)

   Calibrate drip system, metering pump or similar dosage device to establish output rate determined in step #9. This can be done using a watch with a second hand and a calibrated measuring cup, graduated cylinder or similar vessel. If possible, calibrate all drip/metering devices prior to beginning actual treatment. Turn them on as simultaneously as possible, beginning with the device furthest upstream. Begin with only the amount of product required at each site or record your start-up time and shut down drip/metering systems after the drip/metering duration time period determined in step #8.

MAXIMUM ANNUAL APPLICATION RATES

Direct treatment of whole waterbodies:

Maximum annual application rate of 21.9 lbs. of metallic copper 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 2.69 lbs. metallic copper 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 lbs. of metallic copper per acre-foot (8 applications per year at up to 1 ppm).

Direct treatment to localized area of waterbody or water management units:

Maximum annual application rate of 46.6 lbs. of metallic copper per acre-foot per year (17 applications per year at up to 1 ppm). This rate/frequency is calculated based on the maximum number of possible applications allowed based on a 14-day minimum (at a rate of 2.69 lbs. metallic copper per acre-foot = 1 ppm) retreatment interval for eight months (244 days). Do not apply more than 46.6 lbs. of metallic copper to a water management unit, regardless of the pest(s) targeted by applications. 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 46.6 lbs. of metallic copper per acre-foot per year for a single water management unit.

Aquaculture:

Applicators must administer copper at a rate of 0.1 to 0.25 mg/L (0.27 to 0.69 lbs. metallic copper/acre-foot = 0.1 to 0.25 ppm). Applicators must monitor the copper concentration and when it falls below the desired concentration, apply additional copper to bring the concentration back up to the desired concentration. Copper can be applied once daily for 5 to 11 consecutive days. Do not apply to water for more than 11 days before waiting at least 14 days before retreating. Do not apply more than 46.6 lbs. metallic copper per acre-foot in one year.

Catfish:

Copper can be applied throughout the spring and summer when water temperatures are consistently above 70°F when total alkalinity and hardness concentrations fall between 100 and 300 mg/L as CaCO3. 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 lbs. metallic copper 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 broodfish 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.

Water molds on catfish eggs are treated inside the hatchery using a flow-through hatching trough. Administer a rate of 6.9 lbs. metallic copper 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.

Mussels:

For treatments to whole waterbodies, administer copper at a rate of up to 1 ppm (2.74 lbs. metallic copper/acre-foot) at a maximum annual rate of 21.9 lbs. metallic copper per acre-foot. Monitor the copper concentration and when it falls below the desired concentration, apply additional copper to bring the concentration back up to the desired concentration. Monitor mussel populations and terminate the additional applications once mussels are dead or 14 days have passed since the initial application. Applicators must wait at least 14 days after the last application before making any additional applications.

Algae and weeds in irrigation systems via pulse application:

Maximum annual application rate of 13 lbs. metallic copper per year per 5 miles of conveyance. Apply copper into irrigation conveyance system or lateral at up to a maximum rate of 0.5 lbs. metallic copper per cubic foot per second of water per 5 to 30-mile treatment depending on water hardness, alkalinity and algae concentration. This method may only be used in constructed irrigation conveyance systems, laterals and aqueducts.

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 contaminate feed, feedstuffs, or drinking water. Do not store or transport near feed or food.

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.

(For ≤ 5 gallon non-refillable containers only):
CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill container. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. 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 approved landfill, or incineration. Consult Federal, State or local authorities for approved alternative procedures.

(For > 5 gallon non-refillable containers only):
CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill container. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ with water and recap. 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 container on its 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 approved landfill, or incineration. Consult Federal, State or local authorities for approved alternative procedures.

(For Refillable container only):
CONTAINER DISPOSAL: Refillable container. 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 container about 10 percent full with water. Agitate vigorously or recirculate water with pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat rinsing procedure two more times. Then offer for recycling or reconditioning if available or puncture and dispose of in approved landfill, or incineration. Consult Federal, State or local authorities for approved alternative procedures.

{BEGIN - OPTIONAL MARKETING CONTENT}

[Algaecide]/[Herbicide]/[Cyanobacteriocide]
Chelated copper algaecide and herbicide
[Clearigate] [(Brand)] [and] [the Applied Biochemists logo] [is a] [are] trademark[s] of Lonza or its affiliates.
Controls cyanobacteria (blue-green), green algae and diatoms
Developed by professional applicators to fight the toughest algae and weed problems
Does not add water use restrictions.
Eliminates tolerant algae
For Use In: [Crop and Non-crop Irrigation Conveyance Systems,] [Ditches, Canals, and Laterals,] [Potable Water Reservoirs,] [Lakes,] and [Farm,] [Fire,] [Fish,] [Golf Course,] [Industrial,] [Irrigation,] [Stormwater Detention,] [and] [Wastewater] [Ponds].
For product questions, call 1-800-558-5106
From mixed Copper Ethanolamines in an Emulsified Formulation
[Kills][controls][destroys] algae
Pat. No. 5,407,899
Tank mix [with other herbicides or algaecides] for superior control
Treats string algae [filamentous algae]
Kosher seal or symbol as approved

PRODUCT INFORMATION
[Product Name *{or}* This product] is a highly effective algaecide, herbicide and cyanobacteriocide [(blue-green algae)] for use in: [Crop and Non-crop Irrigation Conveyance Systems,] [Potable Water Reservoirs,] [Lakes,] and [Farm,] [Fire,] [Fish,] [Golf Course,] [Industrial,] [Irrigation,] [Stormwater Detention,] [and] [Wastewater] [Ponds.] This product controls coarse Filamentous Algae (thick cell-walled string algae), muscilaginous Planktonic Algae (colonial), Chara and aquatic vegetation species that have a sensitivity to copper in conjunction with a penetrant. Waters treated with this product may be used for animal consumption, further potable water treatment, or irrigating turf or crops after treatment.

[**WARRANTY DISCLAIMER**
Neither the manufacturer nor the seller makes any warranty, expressed or implied concerning the use of this product in a manner that is not consistent with the use expressly set forth on the label. To the extent permitted by, and consistent with, applicable law, buyer assumes any risk of use of this product that is not consistent with label use instructions. Read and follow the label directions.]

{END - OPTIONAL MARKETING CONTENT}