



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

May 11, 2023

Brian Hogan  
Agent  
Caribbean Chemical Industries, Corp.  
Electronic Transmittal: brianhogan330@gmail.com

Subject: PRIA Label Amendment – Update Precautionary Statements, First Aid Statement, and Signal Word  
Product Name: Blue-Ion  
EPA Registration Number: 93829-1  
Received Date: October 28, 2022  
Action Case Number: 00404628

Dear Brian Hogan:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. The next label printing of this product must use this labeling unless subsequent changes have been approved. Pursuant to 40 CFR 156.10(a)(6), you must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

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 FIFRA and is subject to review by the Agency. See FIFRA section 2(p)(2). 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) lists 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, FIFRA section 12(a)(1)(B). 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 Assurance.

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Action Case No. 00404628

Your release for shipment of the product 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, you may contact Joe Daniels via email at [Daniels.joseph@epa.gov](mailto:Daniels.joseph@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Tara M. Flint Silva". The signature is written in a cursive, flowing style.

Tara Flint Silva, Acting Product Manager 31  
Regulatory Management Branch I  
Antimicrobials Division  
Office of Pesticide Programs

Enclosure: Stamped label

# Blue-ION

## Algicide

**ACTIVE INGREDIENT**

Copper Sulfate Pentahydrate (CAS #7758-99-8).....18.16%

INERT INGREDIENTS: .....81.84%

TOTAL .....100.00%

Metallic Copper not less than 4.00%

**A C C E P T E D**

**05/11/2023**

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. **93829-1**

EPA Registration No. 93829-1

EPA Establishment No. 93829-PR-1

Lot. Number: \_\_\_\_\_

Net Weight: \_\_\_\_\_ Lbs

DOT [CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.,  
CLASS 8, UN 3264, PG III, RQ]  
**KEEP OUT OF REACH OF CHILDREN**  
**DANGER/PELIGRO**

*Note to Reviewer: In accordance with 40 CFR 156.68(d), all first aid statements, as prescribed, will appear on the front panel of the product label.*

**FIRST AID**

<b>If in eyes:</b>	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.
<b>If on skin or clothing:</b>	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.
<b>If swallowed:</b>	Call a Poison Center or doctor/physician 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 by mouth to an unconscious person.

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

**General Information:** Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For non-emergency and general information on product use, etc., call the National Pesticides Information Center (NPIC) at 1-800-858-7378, Monday - Friday, 8:00 am - 12:00 pm Pacific Time; email: [npic@ace.orst.edu](mailto:npic@ace.orst.edu); or web site: [www.npic.orst.edu](http://www.npic.orst.edu). For emergencies, call the poison control center 1-800-222-1222.

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. Harmful if swallowed or absorbed through skin. Do not get in eyes or on clothing. Avoid contact with skin. Wear goggles or face shield, long-sleeved shirt and long pants, socks and shoes and waterproof gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

For applications in waters destined for use as drinking water, those waters must receive additional and separate potable water treatment. **Maximum use for Potable Water 19 mg/L** (1.0 ppm as metallic copper).

### 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 10 to 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 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.

### Personal Protective Equipment

Mixers, loaders, applicators, and other handlers must wear the following:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any water-proof material
- Protective shoes plus socks
- Goggles or face shield
- Neoprene or Water Proof Coveralls

Some materials that are chemical-resistant to this product are polyvinyl chloride, nitrile rubber, or butyl rubber. If you want more options, follow the instructions for category A on an EPA chemical resistance category selection chart.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated by this product. Do not reuse them. 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.

### User Safety Recommendations

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.

## 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. Do not use in residential ornamental fish ponds or other artificial aquaculture systems containing trout. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Use this product only in accordance with its labeling and with the Worker Protection Standard, 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. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours. PPE required for early entry into treated areas that is permitted under the Worker Protection Standard 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.

### Treatment Instructions

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 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.

**Additional requirements for ground boom application:** Do not apply with a nozzle height greater than 4 feet above the water.

If the algae cover more than one-third of the total water area, treat in sections.

- Begin treatment soon after plant growth has started.
- When in doubt about the concentration required for control, first use the lower concentration.
  - If needed, gradually increase to the higher concentration until the algae are killed.
- If possible, curtail the flow of water before treatment and hold dormant for approximately three days after treatment, or until the algae have begun to die.
- If treatment is delayed until a large amount of algae is present, larger quantities of Blue-ION will be required. Generally, larger quantities of Blue-ION will also be required to control algae growth when water temperatures are low (below 60°F), in hard water, and in water that is free flowing. Static water requires less chemical for algae control than does flowing water.
- For best results, treat algae on a sunny day when the heavy mats of filamentous algae are most likely to be floating on the surface, where it can be sprayed directly.

### Application Rates

#### **To Control Algae in, Lakes, Reservoirs, Ponds and Lagoons, Livestock Watering Systems, Potable Water Supplies and Sedimentation Basins:**

Disperse Blue-ION evenly throughout the body of water. For fish-bearing lakes, drinking water reservoirs, irrigation canals, ponds, and other applications, apply at the rate of 945 ml of Blue-ION per 250,000 gallons of water or 3,785 ml of Blue-ION per 1,000,000 gallons of water. This will yield a rate of 0.06 ppm metallic copper.

For drinking water applications; do not exceed 3,785 ml of Blue-ION per 60,000 gallons of water (1.0 ppm metallic copper) under any circumstances.

For wastewater lagoons, ponds or lakes without fish for apply at the rate of 945 ml of Blue-ION per 15,000 gallons of water or 3,785 ml of Blue-ION per 60,000 gallons of water. This will yield a rate of 1.0 ppm metallic copper.

Do not apply Blue-ION to water less than 40 ppm alkalinity without first doing a preliminary toxicity test on fish in the water in a separate container.

Use conversions for calculating water volume and flow rates. To calculate the capacity of water storage containment in gallons, multiply the water volume in cubic feet by 7.5

**Conversions:** 1 cfs/hr = 27,000 gallons  
1 acre foot = 326,000 gallons

**To Control Odor-Causing Bacteria:** Application rates may vary depending on amounts of organics in application areas. Blue-ION can be applied directly from the container into the pit or pond. Several application points speed up dispersal. Blue-ION will help control odor-causing bacteria in 7 to 12 days. Repeat application when odors reoccurs.

## Application Instructions

There are several methods by which to apply Blue-ION to impounded water. Probably the simplest and most satisfactory method is to dissolve the Blue-ION in water and spray the solution over the body of the water. Another method is to broadcast the Blue-ION directly on the water surface from a properly equipped boat.

A specially equipped air blower can be used to discharge the product at a specific rate over the surface of the water. When using this method, the wind direction is an important factor. Do not use this method unless completely familiar with this type of application. Begin treatment along the shoreline and proceed outward until one-third to one-half of the total area has been treated. Continue dragging the burlap bags over the treated area until the minimum dosage is achieved and all Blue-ION have been dissolved. Blue-Ion can also be applied to impounded waters by injecting the Blue-ION solution in water via a piping system.

### To Control Algae and Pond Weeds on Irrigation Systems

When preparing a Blue-ION solution in water, the mixing container should be made of fiberglass or plastic. When using Blue-Ion it may be considered to control algae the following parameters: water temperature, the type and amount of vegetation to be controlled, the water hardness and the amount of water flow in. Treatment of algae can result in oxygen loss from the decomposition of dead algae. This loss can cause fish suffocation. If the algae cover more than one-third of the total water area, treat in sections.

Begin treatment soon after plant growth has started. When in doubt about the concentration required for control, first use the lower concentration. If needed, gradually increase to the higher concentration until the algae are killed. If possible, curtail the flow of water before treatment and hold dormant for approximately three days after treatment, or until the algae have begins to die. If treatment is delayed until a large amount of algae is present, larger quantities of Blue-ION will be required. Generally, larger quantities of Blue-ION will also be required to control algae growth when water temperatures are low (below 60°F), in hard water, and in water that is free flowing. Static water requires less chemical for algae control than does flowing water. For best results, treat algae on a sunny day when the heavy mats of filamentous algae are most likely to be floating on the surface, where it can be sprayed directly.

For Irrigation Systems; do not exceed 3,785 ml of Blue-ION per 60,000 gallons of water (1.0 ppm metallic copper) under any circumstances.

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  - Begin treatment along the shoreline and proceed outward until one-third to one-half of the total area has been treated. Continue dragging the burlap bags over the treated area until the minimum dosage is achieved and all Blue-ION have been dissolved. Blue-Ion can also be applied to impounded waters by injecting the Blue-ION solution in water via a piping system.

### Instructions for use in Sewer Treatment - Root Destroyer

Plant roots can penetrate through small cracks and poorly sealed joints of sewer lines. If not controlled, these small roots will continue to grow larger in number causing breakage, reduced flow, and eventual flow stoppage. Copper Sulfate is an effective means to control roots in residential and commercial sewers.

Do not apply Copper Sulfate through sink or tub drains, as it will corrode the metal drains.

Root destroyer added to an active 300 gallons septic tank at up to 2 lb. per treatment will temporarily reduce bacterial action, but it will return to normal approximately 15 days after treatment. Trees and shrubbery growing near a treated line normally are not affected due to only a small portion of their roots being in contact with the Root Destroyer; only those roots inside the leach line are killed.

**Root Control in Pipes and Sewers:** As a preventive measure and at times of reduced flow (some water flow is essential), apply Blue-Ion into each junction or terminal manhole every 6-12 months. For reduced flow due to root masses, add Blue-ION in the next manhole above the reduced flow area. For complete stoppage, first penetrate the mass with a rod to enable some flow before treatment.

**Root Control in Storm Drains:** Apply when water flow is light. If no water flow, as in dry weather, use a hose to produce a flow. Do not exceed 37.85 ml of Blue-ION per 600 gallons of water (1.0 ppm metallic copper) under any circumstances.

**NOTE:** Copper sulfate added to an active 300 gallons septic tank at 2 pounds per treatment will temporarily reduce bacterial action, but it will return to normal approximately 15 days after treatment. Trees and shrubbery growing near a treated line normally are not affected due to only a small portion of their roots being in contact with the copper sulfate. The copper sulfate kills only those roots inside the leach line.

#### **STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Keep pesticide in original container. Do not use in food or drink containers.

**PESTICIDE DISPOSAL:** Pesticide wastes may be hazardous. Improper disposal of excess pesticide, spray, mixture or restate 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. Completely empty IBC Tote or container into application equipment, then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration.

#### **OPTIONAL GRAPHICS (DOT & GHS Classification)**





#### LIMITED WARRANTY AND LIMITATION OF REMEDIES

To the extent consistent with applicable law, seller warrants that the product conforms to the chemical description and is reasonably fit for the purpose stated on the label for use under normal conditions, but makes no other warranties of FITNESS OR MERCHANTABILITY, express or implied, or any other warranty if the product is used contrary to the label instructions, or under abnormal conditions or under conditions not foreseeable to the seller. To extend consistent with applicable law, in no case shall the seller be liable for more than the cost of this product to the buyer, and will in no event be liable for any consequential, special or indirect damages connected with the misuse or incorrect handling of this product. To the extent consistent with applicable law, this product is offered and the buyer or user accepts it subject to the foregoing terms which may not be varied. Seller makes no warranty for the performance of product which has been frozen.

**Manufacturer:**

Caribbean Chemical Industries, Corp.

Road 127 KM 17.1

Talaboa Encarnación

Peñuelas, PR 00624

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