U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Antimicrobials Division (7510P)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

NOTICE OF PESTICIDE:
_X_ Registration
___ Reregistration
(under FIFRA, as amended)

EPA Reg. Number:	**Date of Issuance:**
92013-5	11/13/25

Term of Issuance:
Conditional

Name of Pesticide Product:
BluOX™ 35

Name and Address of Registrant (include ZIP Code):

Manuela Petrisor, Regulatory Consultant
Agent for Clean Chemistry
c/o Sangentia Regulatory
1150 18th Street, NW, Suite 475
Washington, D.C. 20036
Electronic Transmittal: Manuela.Petrisor@sagentiaregulatory.com

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Antimicrobials Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above-named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A). You must comply with the following conditions:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:

Steven Snyderman

Steven Snyderman, Product Manager 33
Regulatory Management Branch II
Antimicrobials Division (7510M)
Office of Pesticide Programs

Date:
11/13/25

You are required to comply with the data requirements described in the DCI Order identified below:

a. Hydrogen peroxide: GDCI- GDCI-000595-1127

You must comply with all of the data requirements within the established deadlines. If you have questions about the Generic DCI or EDSP Order listed above, you may contact the Reevaluation Team Leader (Team 36): https://www.epa.gov/pesticide-contacts/contacts-office-pesticide-programs-antimicrobials-division

2. Make the following label changes before you release the product for shipment:

    - Revise the EPA Registration Number to read, "EPA Reg. No. 92013-5."

3. Submit one copy of the final printed label for the record before you release the product for shipment.

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.

If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 03/08/2024
- Alternate CSF 1 dated 12/12/2016
- Alternate CSF 2 – 6 dated 03/08/2024

If you have any questions, please contact Terria Northern by phone at 202-564-0171, or via email at northern.terria@epa.gov.

Enclosure: Stamped Label

{Note to reviewer: Language in [brackets] is optional.}

Clean Chemistry
BluOX™ 35

[Alternate Brand Names: BluOX™ 34]

This precursor chemical solution is for the use in the BluOX™ Generator.

FOR INDUSTRIAL USE ONLY

KEEP OUT OF REACH OF CHILDREN [KOROC]

DANGER [PELIGRO]

EPA Registration Number: 92013-5
EPA Establishment Number: XXXXX-XX-XX
Net Contents:

Active Ingredient:
Hydrogen Peroxide:..... 34.5%
OTHER INGREDIENTS: 65.5%
TOTAL:.....100.0%

[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	
If in EYES:	• Hold eye open and flush with a directed stream of water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. • 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 INHALED:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. • 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 do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
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.	
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., information pertaining to this product, 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; or web site: www.npic.orst.edu. For emergencies, call the Poison Control Center 1-800-222-1222.	

{Note to reviewer: Language in [brackets] is optional.}

Clean Chemistry
5541 Central Avenue, Ste 110
Boulder, Colorado 80301 USA
Telephone Number: 303-440-8329 x110 (M-F 8:00 am-5:00 pm Mountain)
Within USA and Canada: 1-800-424-9300 CCN794490 or +1 703-527-3887 (collect calls accepted)

PRECAUTIONARY STATEMENTS:

DANGER. CORROSIVE. STRONG OXIDIZING AGENT. Causes irreversible eye damage and skin burns. May be fatal if inhaled or absorbed through skin. Harmful if swallowed. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Wear goggles or face shield, coveralls worn over long-sleeved shirt and long pants, socks, chemical-resistant footwear, and chemical-resistant gloves. When mixing and loading wear a chemical-resistant apron. Wear a NIOSH-approved respirator with an organic vapor (OV) cartridge with a combination N, R, or P filter with NIOSH approval number prefix TC-84A; or NIOSH approved gas mask with an organic vapor canister with NIOSH approval number prefix TC-14G; or a NIOSH approved powered air purifying respirator with organic vapor (OV) cartridge and combination HE filter with NIOSH approval number prefix TC-23C. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash before reuse. Do not enter an enclosed area without proper respiratory protection or when uncoupling product transfer hoses.

PHYSICAL AND CHEMICAL HAZARDS:

Strong oxidizing agent. Corrosive. Contact with combustibles may cause fire. Contamination may cause rapid decomposition, generation of large quantities of oxygen and heat.

ENVIRONMENTAL HAZARDS:

This pesticide is toxic to fish and aquatic invertebrates. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or public waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

STORAGE AND DISPOSAL:

DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISPOSAL

Storage: Product should be stored in original container. Product should be kept cool and vented to avoid any explosion hazard. Avoid all contaminants, especially dirt, caustic, reducing agents and metals. Contamination and impurities will reduce shelf life and can induce decomposition.

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 the label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste Representative of nearest EPA Regional Office for guidance.

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Triple rinse (or equivalent). Offer for recycling, if available, or reconditioning, or puncture and dispose of in sanitary landfill or by other procedures approved by state and local authorities.

{Note to reviewer: Language in [brackets] is optional.}

DIRECTIONS FOR USE:

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

General instructions for using BluOX™ 35 with the BluOX™ Generator to produce PeroxyMax™ IBS.

PeroxyMax™ IBS is an on-demand peroxyacetic acid-based pesticide developed for the following uses:
Agricultural and horticultural Uses: Irrigation Water Systems, Spray Tanks, Greenhouses, Hydroponic Water Systems, and Foliar Applications
Post Harvest Uses on: Fruits and Vegetables
Bacteria, Slime, Odor and Algae Control in: Recirculating Cooling Water and Evaporative Coolers, and Agricultural Waters
Secondary Effluent Treatment in: Public and Private Wastewater Treatment Plants

Refer to BluOX™ Generator for General Operating Instructions. To produce 1 part solution, feed 0.058 parts by volume **BluOX™ 35** (34.5% wt/wt hydrogen peroxide) into the BluOX™ Generator. The PeroxyMax™ IBS solution is drawn from the BluOX™ generator and delivered to the point of use by a metering pump controlled to deliver PeroxyMax™ IBS at the recommended use rate.

PeroxyMax™ IBS

PeroxyMax™ IBS is used for control of slime forming bacteria, anaerobic sulfate reducing bacteria, aerobic acid producing bacteria, fungi and algae which cause reduced performance of drilling muds and hydraulic fracturing fluids, cause reservoir souring, decrease well productivity, promote metal corrosion, produce sulfide deposits, reduce heat exchanger efficiency, reduce pulp and paper quality, foul and clog filters, clog pipes and generate odors.

Feed rates for PeroxyMax™ IBS are determined by the operator to achieve the desired level of active oxidant in the process stream. As described below, the appropriate feed rate will depend on the severity of contamination, the degree of microbial control desired, the size of the system and residual necessary for effective control. PeroxyMax™ IBS is added to a fluid with adequate mixing to promote uniform distribution in the fluid, which includes a pipe, in-line mixing apparatus, mixed tank, blending unit, circulated sump, recirculating water system and inlet or outlet of a pump.

Non-Public Health

Drilling Muds, Fracturing System Fluids, Well Squeeze Fluids[*]
For the preservation of drilling muds, workover and completion fluids and other products susceptible to contamination, add 28 to 570 fluid ounces of PeroxyMax™ IBS per 1000 gallons of fluid as required (10 ppm to 200 ppm as peroxyacetic acid).

Flooding, Injection and Well Squeeze Fluids[*]
For microbial control in water flooding operations, add 22 to 220 fluid ounces of PeroxyMax™ IBS per 1000 gallons of water (7.7 ppm to 77.3 ppm as peroxyacetic acid). Depending on the severity of the contamination and concentration of sulfides in flood water, the dose may be increased to 4410 fluid ounces per 1000 gallons of water (1550.4 ppm as peroxyacetic acid).

{Note to reviewer: Language in [brackets] is optional.}

Injection wells associated with gas storage systems may be treated with a dose of up to 1100 fluid ounces of PeroxyMax™ IBS per 1000 gallons of water (386.7 ppm as peroxyacetic acid) when diluted in the formation water. Any additional top-up water should be treated as required. For hydrostatic systems, apply a dose of 1100 to 6620 fluid ounces of PeroxyMax™ IBS per 1000 gallons of water (386.7 ppm to 2327.3 ppm as peroxyacetic acid) depending on the water quality, level of well contamination and duration of the shut-in.

Flowback Water and Produced Water[*]
For microbial control in flowback water from well completions, hydraulic fracturing and coil tube operations, add 22 to 350 fluid ounces of PeroxyMax™ IBS per 1000 gallons (7.7 ppm to 123.0 ppm as peroxyacetic acid).

For microbial control in produced water, apply a dose of 22 to 350 fluid ounces of PeroxyMax™ IBS per 1000 gallons (7.7 ppm to 123.0 ppm as peroxyacetic acid) as necessary to achieve the level of microbial control required. Depending on the severity of the contamination and concentration of sulfides, initial application may be dose may be added at up to 4410 fluid ounces of PeroxyMax™ IBS per 1000 gallons of water (1550.4 ppm as peroxyacetic acid).

Pipeline, Tank and Hydrocarbon Separation System Maintenance[*]
For microbial and sulfide control in water-bottoms in crude, refined hydrocarbon storage tanks, piping, hydrocarbon separation systems (e.g., heater treater, gunbarrel) and transportation systems. Apply a dose of 22 to 350 fluid ounces of PeroxyMax™ IBS per 1000 gallons (7.7 ppm to 123.0 ppm as peroxyacetic acid) directly injected into the water-bottom, fluid-containing pipeline or added to the fluid phase (aqueous or hydrocarbon) entering a tank or separation system. Treatment may be applied daily, weekly or monthly for both storage and transportation systems as needed. Shock treatments of up to 4410 fluid ounces per 1000 gallons of fluid (1550.4 ppm as peroxyacetic acid) may be applied to treat heavily contaminated surfaces, containment and separation systems.

PeroxyMax™ IBS may be introduced into storage tanks, piping, hydrocarbon separation systems and transportation systems after dilution into a carrier fluid, which may be fresh water or salt water possessing minimal oxidant demand. The carrier fluid is prepared by adding 2210 to 4410 fluid ounces of PeroxyMax™ IBS per 1000 gallons of fresh water or salt water (777.0 ppm to 1550.4 ppm as peroxyacetic acid) with mixing in a clean, compatible vessel such as polyethylene, stainless steel and poly-coated steel. Within 30 minutes of preparation the diluted solution is injected into a pipeline, separator or tank to displace existing fluids or to flood an empty pipe or tank. Hold times of greater than 30 minutes result in greater loss of assay. Treatment may be applied daily, weekly or monthly as needed.

Disposal Well and Filter Pre-treatment[*]
For microbial control in water prior to injection into a disposal well or prior to filtration in nonpotable water filtration systems. Apply a dose of 22 to 350 fluid ounces of PeroxyMax™ IBS per 1000 gallons (7.7 ppm to 123.0 ppm as peroxyacetic acid) as needed to achieve the level of microbial control required.

Non-Potable Water Use, Reuse and Recycling in Oilfield and Gas Field Operations[*]
For water reuse and recycling treatment operations, add 22 to 350 fluid ounces of PeroxyMax™ IBS per 1000 gallons (7.7 ppm to 123.0 ppm as peroxyacetic acid) and repeat until control is achieved. Subsequent treatment of the finished water may be continued on a weekly basis or as required to maintain microbial control.

{Note to reviewer: Language in [brackets] is optional.}

Pulp and Paper Mill Systems[*]
For control of biofouling in the manufacture of paper and paperboard intended for non-food contact. Treat water at critical areas in the system where mixing of the product will be uniform such as beaters, furnish chest, white-water tank, save-all, and broke chest. Add 22 to 350 fluid ounces of PeroxyMax™ IBS per ton (dry basis) of pulp or paper produced at a rate that maintains a residual concentration that provides adequate microbial control. Depending on the severity of biofouling higher rates may be applied intermittently until microbial control is achieved and then reducing the rate to the lowest possible for maintaining control continuously. A typical residual concentration range is 10 to 50 ppm as peroxyacetic acid.

Recirculating and non-recirculating cooling water systems (cooling towers, evaporative condensers)[*]
For control of slime forming bacteria in recirculating cooling water systems. Severely fouled systems should be cleaned before adding PeroxyMax™ IBS. PeroxyMax™ IBS should not be mixed with reactive additives such as azides, triazines, amines, quaternary ammonium salts, metal salts or complexes, or any other chemicals that are readily oxidized by peroxides or catalyze peroxide decomposition. Other materials should be added separately and compatibility testing with other materials is recommended if unknown.

For intermittent feed, add 22 to 220 fluid ounces of PeroxyMax™ IBS per 1000 gallons of water in the system (7.7 ppm to 77.3 ppm as peroxyacetic acid). Repeat on a daily basis, semi-daily basis until control is achieved. When microbial control is evident, add 22 to 110 fluid ounces of PeroxyMax™ IBS per 1000 gallons of water in the system (7.7 ppm to 38.7 ppm as peroxyacetic acid) on a daily basis, or as needed, to maintain control.

For continuous feed, add 11 to 44 fluid ounces of PeroxyMax™ IBS per 1000 gallons of water in the system (3.9 ppm to 15.5 ppm as peroxyacetic acid) on a daily basis, or as needed, to maintain control. The dose rate may be adjusted to compensate for losses due to elevated temperature, blowdown, evaporation and drift. Add 22 to 110 fluid ounces of PeroxyMax™ IBS per 1000 gallons of make-up water (7.7 ppm to 38.7 ppm as peroxyacetic acid).

Treatment of Agricultural or Irrigation Water Systems (sand filters, humidification systems, storage tanks, ponds, reservoirs, canals)[*]:
PeroxyMax™ IBS can be used for the control of sulfides, odor, slime and algae in water systems. Mix PeroxyMax™ IBS at a rate of 56.9 – 284.4 fluid ounces with 10,000 gallons of water to produce an 2 - 10 ppm solution of peroxyacetic acid. Depending on seasonal conditions, repeat this dose as necessary to maintain control. For prevention of algae, some systems may require continuous low-level dosing during warm sunny periods (2-5 ppm peroxyacetic acid).

Post-Harvest Applications [*]
PeroxyMax™ IBS may also be used to control the growth of spoilage and decay causing bacterial and fungal diseases on fruits and vegetables in post-harvest storage. Mix PeroxyMax™ IBS with water either batch-wise or continuously at a rate of 56.9 to 227.6 fl. oz. of PeroxyMax™ IBS solution to 1,000 gallons of water. This will provide 20 to 80 ppm of peroxyacetic acid. For post-harvest applications, fruits and vegetables can be sprayed or submerged in the resulting solution for a minimum contact time of 45 seconds, followed by adequate draining. Note: May cause bleaching of treated surfaces, test commodity if unsure.

* Not a use registered by California

{Note to reviewer: Language in [brackets] is optional.}

Agricultural or Horticultural Uses
Upon soil contact, this product decomposes rapidly to oxygen, carbon dioxide and water. This product may be harmful to fish if exposed on a continuous basis at concentrations of 0.5 ppm or more of active peroxyacetic acid. Meter this product into pressurized pipes using a plastic or stainless steel injection/backflow device installed far enough upstream from the target equipment to ensure thorough mixing. For open flowing bodies of water, apply this product as far upstream as possible to allow adequate mixing prior to the flow entering any larger body of water.
Compatibility: This product is compatible as a direct injection or tank-mix with many commonly used pesticides, fertilizers, adjuvants and non-ionic surfactants but has not been fully evaluated with all of these. Do not direct inject or tank mix this product in to the irrigation system or in spray tank with pesticides, surfactants or fertilizers before conducting a compatibility test to show it is physically compatible, effective and noninjurious under your use conditions. Do not tank mix this product with copper or other pesticides containing metals at a dilution rate stronger than 1:100. To ensure compatibility, evaluate them prior to use as follows: Using a suitable container, add proportional amounts of product to water. Add wettable powders first, followed by water dispersible granules, then by liquid flowables and lastly, emulsifiable concentrates. Mix thoroughly and let stand for at least five minutes. If the combination stays mixed or can be remixed, it is physically compatible. Test the combination on a small portion of the crop to be treated to ensure that a phytotoxic response will not occur as a result of application.

[Phytotoxicity Test Procedure:
1. Select healthy typical plants of each cultivar or type on which the pesticide will be used.
2. Read the pesticide label to determine the application site (roots or leaves), the rate of application (amount per gallon/liter), and the interval of application (number of days between application).
3. Use clean spray equipment and perform the test during the time of day when most of your pesticide applications will occur.
4. Have one control set of plants which are sprayed with water only. Control sprayed plants must be sprayed under the same conditions as pesticide-sprayed plants.

Wait for signs of phytotoxicity before determining that a pesticide is safe. Phytotoxic effects can range from slight burning or browning of leaves to death of the plant. Sometimes damage appears as distorted leaves, fruit, flowers, or stems.]

Drip Irrigation System Cleaning
To clean slime and algae from drip system tapes and emitters, meter this product upstream from pumps or filters at the rate of 2.8 – 5.6 oz per 100 gallons of water (10-20 ppm as peroxyacetic acid). This feed rate equals 2.2- 4.4 gal per 10,000 gallons of dilution water. When required, during normal irrigation cycles, use this product at the recommended dose for a minimum of 30 minutes. After an irrigation cycle do not flush the lines.

Spray Tank Treatment for Agricultural Water
In accordance with the Food Safety Modernization Act (FSMA), agricultural water applied to a growing food crop must be treated to within the microbial water quality profile (MWQP). For the control of odor, sulfides, non-pathogenic bacteria, slime and algae add 28 to 80 ppm PeroxyMax™ IBS (8.0 – 20.0 fl. oz per 100 gal) to each spray tank of agricultural water to achieve hygienic conditions. These waters include municipal water, ground, well water or surface waters [rivers, streams, canals, lakes, ponds].

{Note to reviewer: Language in [brackets] is optional.}

Greenhouses
This product can be used to suppress/control algae and slime formations in and around greenhouses. For normal use in various processes, irrigation or sprinkler watering systems, this product may be used up to 29 ppm as peroxyacetic acid (1 fl. oz per 12 gal). NOTE: This product at its use dilution is compatible with stainless steel and aluminum surfaces. If product is intended to be used on any other surface, it is recommended that you apply product to a small test area to determine compatibility before proceeding with its use.

Treatment of Hydroponic Water Systems
PeroxyMax™ IBS can be used as a hydroponic water treatment using a dilution rate of 8.4 – 38.0 fl. oz. of per 100 gal. of water (34 – 134 ppm peroxyacetic acid). The grower should perform a phytotoxicity test on a small group of plants under simulated production conditions prior to widespread application to determine the specific dosage range that will result in higher yield, increased plant height and weight, leaf length and stem diameter with no phytotoxicity. It is also recommended that test strips for the concentration range should be used to measure peroxyacetic acid concentrations in the hydroponic systems to establish the appropriate concentration range for the system. Root systems of different plant species vary in their sensitivity to PeroxyMax™ IBS. Also, water and inert growing media in a hydroponic growing system provide special conditions that the grower needs to adjust for due to the unbuffered water conditions. Water pH, EC and supplements such as fertilizer, biological loading, and minor elements are factors that need to be considered before determining correct water treatment rates.

Foliar Applications
This product can be applied to the following growing crops to control fungi. Crops: root vegetables, potatoes, berries, strawberries, citrus fruit, pome fruit, stone fruit, herbs, spices, peppers, tomatoes, eggplant, sweet potatoes, bulbs, onions, cucurbits, cucumbers, tropical fruits, avocadoes, bananas, mangoes, grapes, brassicas, peas, beans, soybeans, cereal crops, rice, wheat, peanuts, alfalfa, chinese vegetables, greens, lettuce, leafy greens, celery, apiaceaes, cranberries, legumes, corn (field, sweet, seed), wild rice, cole crops, garlic, leeks, green onions, mushrooms, sugar beets, tobacco, hops, grass for seed or sod, asparagus, nuts, walnuts, pistachios, macadamia nuts, almonds, cotton, and coffee, hemp and flowering plants. To suppress/control/prevent the following non-human plant pathogens: Alternaria, Angular leaf spot, Anthracnose, Bacterial blotch, Bacterial speck, Bacterial spot, Black rot, Blights, Blue mold, Botrytis, Brown rot, Citrus canker, Cladosporium, Crown rot, Downey mildew, Early blight, Fruit rot, Fusarium, Gray leaf spot, Gummy stem blight, Leaf blight, Leaf rust, Leaf spot, Mycogene, Necrotic spot, Phytophthora, Potato brown rot, Powdery mildew, Pythium, Rhizoctonia, Rust, Scab, Sclerotina, Shot hole, Sooty mold, Stem rot, Trichoderma, Verticillum, White mold.
Initial Curative Application:
1. Use 4.2-8.5 fl. oz. of this product per 5 gallons of clean water.
2. Do not reuse already mixed solution; make fresh daily. Spray or mist plants and trees.
3. Thoroughly wet all surfaces of plant, upper and lower foliage, including stems, branches, and stalks to ensure full contact with plant tissue.
4. Based on the disease severity, apply for one to three consecutive days and then follow directions for preventative treatment after the initial application.
Weekly Preventative Treatment:
1. Use 0.82 - 1.37 fl. oz. of this product per 5 gallons of clean water.
2. Spray or mist plants and trees.
3. Thoroughly wet all surfaces of plant, upper and lower foliage, including stems, branches, and stalks to ensure full contact with plant tissue.

4. Based on the disease pressure, spray every five to seven days as a preventative treatment. 5. At the first sign of disease, spray daily with 4.2-8.5 fl. oz. of this product per 5 gallons of water for three consecutive days and then resume weekly preventative treatment. Apply solution at 50-100 gallons per treated acre, depending on spray method used. Note: 1.4 fl. oz. of this product per 5 gallons of water = 100 ppm peroxyacetic acid. A nonionic spreader (surfactant) adjuvant should be used for better results. Contact your local supplier or farm supply.

Fogging in Filling, Packaging, Storage and Dispensing Rooms or Areas
All surfaces must be cleaned and disinfected in accordance with label directions prior to fogging. This product can be applied by fogging to control the growth of non-public health microorganisms that may cause decay and/or spoilage on raw, post-harvest fruits and vegetables. 1. Use in a secure fruit and vegetable storage system. Vacate all personnel prior to fogging. Post notice of when personnel can re-enter. Personnel must wait to re-enter a minimum of 2 hours after fogging and a minimum or 4 air exchanges (ACH) per hour in the facility. 2. Fog areas to be treated using a maximum of 80 ppm solution of peroxyacetic acid (1.0 fl. oz. per 4.5 gallons of water).

Note: The fog generated is irritating to the eyes, skin and mucous membranes. Under no circumstances must a room or building be entered by anyone within two hours of the actual fogging and a minimum of 4 air exchanges (ACH) per hour in the facility. If the building must be entered, then the individuals entering the building must wear a self-contained respirator approved by NIOSH, goggles, long sleeves, gloves and long pants.

Fogging: For raw agricultural commodities, commercially-applied fogging methods may be used provided the dilution rates of the resultant solution does not exceed those prescribed in this section (1.0 fl. oz. per 16.7 gal of water). A potable water rinse is not required. Conventional corrosion-resistant fogging devices are recommended. Vacate the area of all personnel prior to, during and after fogging until the total peroxide concentration is below 1.0 ppm, or there is no strong odor present, characteristic of acetic acid.

Treatment Of Harvest Potatoes
To control, treat or suppress the bacterial and fungal diseases: silver scurf, late blight, pink rot, early blight, bacterial soft rot. This product can be applied by dip or spray on harvested potatoes going into storage. Use 3.17 - 6.33 fl. oz. of this product per five (5) gallons of clean water (223 - 445 ppm as peroxyacetic acid). This will provide Do not reuse already mixed solution; make fresh daily. If applying diluted solution via spray, spray over potatoes to achieve full and even coverage. Ensure full contact on all surfaces for 45 seconds.

Poultry, Swine, Livestock Watering Operating Systems
After watering lines have been cleaned, use this product at 1.0 - 159fl. oz. per 100 gallons of water (4-559 ppm as peroxyacetic acid) to control algae and bacteria in drinking water and to control mineral build up in watering lines. Stop the use of this product twenty-four (24) hours prior to vaccination via the water line**.**

Antimicrobial Rinse Of Precleaned Or New Returnable Or Non-Returnable Containers:
To reduce the number of nonpathogenic beverage spoilage organisms: *Aspergillus versicolor, Byssochlamys fulva, Pediococcus damnosus, Lactobacillus buchneri, and Saccharomyces cerevisiae,* use 3.7 to 37.8 fluid ounces of product per 5 gallons of water. This provides 265 to 2700 ppm peroxyacetic acid. All surfaces must be exposed to antimicrobial solution for at least 15 seconds. After applying the antimicrobial rinse, allow containers to drain thoroughly. A rinse is optional. Either sterile or potable water may be used.

{Note to reviewer: Language in [brackets] is optional.}

Microbial Control in Effluent Water Systems
Use this product to treat sewage and wastewater effluent systems associated with public and private wastewater treatment plants. This product may be applied alone at any point in the treatment train, such as debulking control, or may effectively be used in conjunction with other systems, such as Ultraviolet (UV) light. Doses for UV systems will typically be 1-4 ppm (as active peroxyacetic acid). Initially apply this product at the rate of 10-547 gal per million gallons of water to be treated (0.5-25 ppm as peroxyacetic acid). The peroxyacetic acid dosage will depend on the quality of water, contact (holding) time, and the degree of microbial control necessary. The peroxyacetic acid concentration will rapidly decline after treatment, but the maximum amount of peroxyacetic acid that may be discharged into the receiving body of water is limited to 1 ppm as active peroxyacetic acid, or as required for local discharge requirements.

Antimicrobial Rinse Of Precleaned Or New Returnable Or Non-Returnable Containers:
To reduce the number of nonpathogenic beverage spoilage organisms: *Aspergillus versicolor, Byssochlamys fulva, Pediococcus damnosus, Lactobacillus buchneri, and Saccharomyces cerevisiae,* use 3.7 to 37.8 fluid ounces of product per 5 gallons of water. This provides 265 to 2700 ppm peroxyacetic acid All surfaces must be exposed to antimicrobial solution for at least 15 seconds. After applying the antimicrobial rinse, allow containers to drain thoroughly. A rinse is optional. Either sterile or potable water may be used.

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BluOX™ Generator Operating Manual

Version 2024.1
January 2024
Patented and Patents Pending
For patent list see cleanchemi.com/patent

Clean Chemistry, Inc.
1900 S. Sunset St., Suite 1E
Longmont, CO 80501
303-440-8329
connect@cleanchemi.com

I. SPECIFICATIONS

NOTICE: The BluOX™ Generator is a pesticide device to be used as directed with BluOX™ 17™ (EPA Reg. No. 92013-4), BluOX™ 34™ (EPA Reg. No. 92013-5), or BluOX™ 50™ (EPA Reg. No. 92013-X)

Output:

- 4.5% wt/vol PeroxyMax™ IBS (Industrial Biocide Solution) as peroxyacetic acid

BluOX™ Generator Feedstocks:

- BluOX™ 17™, 17.5% hydrogen peroxide solution (EPA registration no. 92013-4) or BluOX™ 34™, 34.5% hydrogen peroxide solution (EPA registration no. 92013-5) or BluOX™ 50, 50% hydrogen peroxide solution (EPA registration no. 92013-X)
- Water: Softened water source, 0-80 psig, less than 35° C (95° F).
- 20-50 wt% Sodium hydroxide: diaphragm grade
- Triacetin

{Note to reviewer: Language in [brackets] is optional.}

II. SAFETY

ATTENTION

- Observe all NOTICE statements contained within the operating instructions.
- Intended use:

  The BluOX™ Generator is a pesticide device which produces PeroxyMax™ IBS and dispenses this product solution into liquid fluid systems for microbial control in accordance with the directions for use in the BluOX™ 17™, BluOX™ 34™, or BluOX™ 50™ pesticide label instructions.
- The system may be operated and serviced only by trained personnel.
- Operating temperature range of 10 to 40°C (50 to 104°F) in a climate-controlled environment is recommended.
- Prior to storage and transport the system must be drained of feedstock and product fluids. Flushing system with clean/potable water before decommissioning is recommended.
- Bulk quantities of concentrated sodium hydroxide and BluOX™ 17™, BluOX™ 34™ and BluOX™ 50™ are incompatible. It is recommended to keep these materials segregated during storage and place containers on secondary containment during use.
- Use only feedstock materials specified for use with the BluOX™ Generator.
- Use only OEM replacement components approved by Clean Chemistry.

NOTICE

- **Electrical Hazard:** 120 VAC
- **Chemical Hazard:** corrosive, oxidizer
- Recommended PPE when handling chemicals: Wear goggles, face shield, rubber gloves and protective clothing with long sleeves.

SYSTEM SAFETY FEATURES

- The BluOX™ Generator has an internal operating pressure near atmospheric pressure. The system is protected by a pressure relief valve.
- Less than 1.5 gallons of PeroxyMax™ IBS solution concentrate are contained in the Generator at any time. Operate system in a ventilated area.
- The BluOX™ Generator is a PLC controlled system. Multiple automated safety shut-down features are included and will be set-up by trained personnel during system installation.

III. OVERVIEW

The BluOX™ Generator is a pesticide device which produces PeroxyMax™ IBS and dispenses this product solution into liquid fluid systems for microbial control in accordance with the directions for use in the BluOX™ 17™, BluOX™ 34™, or BluOX™ 50 pesticide label instructions.

{Note to reviewer: Language in [brackets] is optional.}

OPERATING PRINCIPAL

The BluOX™ Generator includes chemical feedstock pumps, a PeroxyMax™ IBS production system, and PeroxyMax™ IBS solution dispensing pumps. The BluOX™ Generator is controlled via a Human Machine Interface (HMI) integrated with a Programmable Logic Controller (PLC). The system is automated for PeroxyMax™ IBS production and dose control.

Feedstocks are combined in a chemical mixing/reactor system and the resulting PeroxyMax™ IBS solution is then dosed into a process stream. The output rate of PeroxyMax™ IBS solution dosed into a process stream is set by the user to a fixed rate or controlled by an external flow meter or sensor at a rate proportional to the external flow meter or sensor signal. Recommended use rates of PeroxyMax™ IBS are provided in the BluOX™ 17™, BluOX™ 34™, or BluOX™ 50™ pesticide label instructions.

IV. SYSTEM INSTALLATION

The BluOX™ Generator will be installed and set to a specific production rate by trained personnel only. The PeroxyMax™ IBS solution injection rate into the process stream being treated will be optimized on site to account for site conditions including water quality, temperature, feedstock container elevations and distance between the BluOX™ Generator and PeroxyMax™ IBS injection point.

The BluOX™ feedstock, water source, sodium hydroxide and triacetin inputs are transferred to the BluOX™ Generator using appropriately sized and rated hose or piping. It is recommended that chemical feedstock transfer hoses or piping coupled to chemical containers be equipped with shutoff valves between the hose and chemical container connection. To complete system installation:

- Connect the water source to the water input pump(s) or connect to input water pressure regulator, if equipped.
- Connect the BluOX™ 17™, BluOX™ 34™ , or BluOX™ 50™ feedstock container to the BluOX™ feedstock pump.
- Connect the sodium hydroxide container to the sodium hydroxide input pump.
- Connect the triacetin container to the triacetin input pump.
- Connect the PeroxyMax™ IBS solution dispensing hose or pipe to the injection point in the process in which it is being used. It is recommended that PeroxyMax™ IBS solution injection points be equipped with a check valve and a shutoff valve.

V. USER INTERFACE

The BluOX™ Generator is equipped with a user interface for system operation, system settings and other features. The controller is also equipped with a password-protected manual operating mode for system servicing, commissioning, and decommissioning by Clean Chemistry qualified operators.

VI. OPERATION

1. Confirm that liquid levels in water and feedstock containers are sufficient to operate system. Container levels must be manually monitored if optional tank level sensors are not installed.
2. Confirm that line power (120 VAC, 15 A, single phase) is connected to the power cord from the control panel box.

{Note to reviewer: Language in [brackets] is optional.}

3. Turn on the main power switch.

4. Access the **Main Menu** in the user interface.

The BluOX™ Generator PLC is programmed to control chemical feedstock pump speeds to ensure correct production of PeroxyMax™ IBS. To correctly make PeroxyMax™ IBS, the user must enter the following information on the HMI:

- BluOX™ concentration (17.5, 34.5, or 50% w/w)
- Sodium Hydroxide feedstock concentration in %w/w
- Desired PeroxyMax™ IBS production rate in liters per minute (L/min). Note that an initial PeroxyMax™ IBS production rate must be set manually (L/min). After the system is started, the BluOX™ generator may automatically adjust production rate based on product demand.

5. Press START for normal operation: Pumps will start automatically.

   a) During normal operation the feedstock and input pumps may periodically stop and restart depending on demand.

   b) If there is an alarm/fault condition all pumps will stop and a fault condition will be displayed in the "System Status" indication box. The alarm/fault condition may be cleared by pressing the "Reset" button. After the cause of the alarm/fault has been resolved the system may be restarted.

6. Oxidant production and dispensing can be STOPPED at any time by:

   a) Selecting "Stop" on the user interface

   b) Pushing the emergency stop button,

   c) Disabling line power or main power to the system,

   d) Closing the optional external SCADA contact on/off switch if installed and enabled.

      NOTE: methods b) and d) are alarm/fault conditions requiring the switch to be returned to the run position and the "Reset" button pushed before the system can be restarted.

NOTICE: ANY PEROXYMAX™ IBS DISPENSING HOSE MUST BE DRAINED OR FLUSHED WITH WATER IF A HOSE SEGMENT IS ISOLATED BETWEEN VALVES ("DEAD LEG") WITHOUT A VENT OR PRESSURE RELIEF DEVICE OUTFITTED ON THAT DEAD LEG SECTION. The natural activity of the PeroxyMax™ IBS product releases oxygen gas which presents a pressure hazard if sealed in a hose or container.

Please contact Clean Chemistry for routine BluOX™ Generator maintenance instructions. Routine maintenance includes pump calibration, mixing system cleaning, and overall system configuration verification.

If the BluOX™ Generator is expected to be idle for extended periods of time and be subjected to adverse conditions outside of the specified operating limits, draining the system of its fluids is recommended. Please contact Clean Chemistry for service or instructions and training.