



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Antimicrobials Division (7510C)
1200 Pennsylvania Avenue NW
Washington, D.C. 20460

EPA Reg. Number: 72852-4

Date of Issuance: SEP 28 2011

Term of Issuance: Conditional

Name of Pesticide Product: ELECTROLITE® 31

NOTICE OF PESTICIDE:

- x Registration
Reregistration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code): Pureline Treatment Systems, 647 St. Vermont St., Palatine, IL 60067

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

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.

This product (OPP Decision No. 450627) is conditionally registered in accordance with FIFRA sec 3(c)(7)(A) provided that you:

- 1. Submit and/or cite all data required for registration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for re-registration of your product under FIFRA section 4.
2. Make the labeling changes listed below before you release the product for shipment:
a. Add the phrase "EPA Registration Number 72852-4"

Signature of Approving Official:

Monisha Harris
Product Manager-32
Regulatory Management Branch II
Antimicrobials Division (7510P)

Date:

SEP 28 2011

- b. Complete and fill out the submitted Basic Formulation CSF dated June 13, 2011 as follow:
1. Column 7 with 10.7;
  2. Column 8 with 11.0;
  3. Column 13a with the amount for example 100 lbs or 1000 lbs;
  4. Column 14a with 103 and (30.3) and Column 14b with 97.0 and (28.6)

c. Comments on "**PROPOSED LABEL**"

Page 4. Under "**Method of Feed**", delete the third method "**The Acid-chlorite method which utilizes as Sodium Chlorite and an acid, or**", since this method has not been supported with current registration.

Page 5. Under "For water up to 3 ppm residual chlorine dioxide may be used for washing fruits and vegetables that are not raw agricultural commodities", change statement to read "**Chlorine dioxide in water generated from Electrolite® 31 product may be used for washing fruits and vegetables that are not raw agricultural commodities, but must require an official approval from the US FDA in accordance with 21 CFR 173.300.**"

Page 7. and 8. Revise the "**Storage and Disposal**" statement as per EPA regulations, 40 CFR 156.140, 40 CFR 156.144, 40 CFR 156.146, and 40 CFR 156.156 and summarized in PR Notice 2007-4 of October 29, 2007 (Revised: April 29, 2008). Revise the "Container Handling" instructions as follows:

-Under "STORAGE AND DISPOSAL" insert below it "**Do not contaminate water, food, or feed by storage and disposal**"

**[Subheading] Container Handling:**

**[For rigid non-refillable container less than 5 gallons]**

**Container Handling: Nonrefillable rigid container. Do not re-use or refill this container.** Triple rinse container promptly after emptying. 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 trash or in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay of smoke**

**[Subheading] Container Handling:**

**[For rigid non-refillable container greater than 5 gallons]**

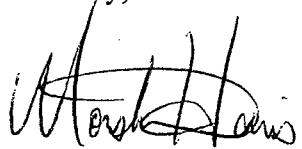
**Container Handling: Nonrefillable rigid container. Do not re-use or refill this container.** Triple rinse container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other 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, or puncture and dispose of in trash or in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay of smoke.**

Submit promptly three (3) copies of the final printed label with the above noted comments, prior to releasing this product for sale.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 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.

Sincerely,



Monisha Harris  
Product Manager 32  
Regulatory Branch II  
Antimicrobials Division (7510P)

Enclosure: (Stamped Labeling)

# Electrolite® 31

ACCEPTED  
with COMMENTS  
in EPA Letter Dated:

SEP 28 2011

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act as  
amended, for the pesticide,  
registered under EPA Reg. No. 72852-4

ACTIVE INGREDIENT: Sodium Chlorite\* 31%  
OTHER INGREDIENTS 69%  
TOTAL 100%

\*AVAILABLE CHLORINE 48.6%

CONTAINS 3.3 LBS. OF SODIUM CHLORITE PER GALLON AT 70°F

**KEEP OUT OF REACH OF CHILDREN**

## DANGER

### 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 eye.
- Call a poison control center or doctor immediately 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 burning or irritation of skin persists.
- Have person sip a glass of water if able to swallow.
- Call a poison control center or doctor immediately for treatment advice.

**If swallowed:**

- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything to an unconscious person.
- Move person to fresh air and monitor for respiratory distress
- If cough or difficulty in breathing develops, consult a physician immediately.

**If inhaled:**

- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-

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- mouth if possible.
- Call a poison control center or doctor for further treatment advice.

**For emergency information call: 800-424-9300 (24 hours)**  
Have the product container or label with you when calling a poison control center or doctor or going to treatment.

**NOTE TO PHYSICIAN:**  
Probable mucosal damage may contraindicate the use of gastric lavage.

**PureLine® Treatment Systems**  
647 S. Vermont Street  
Palatine, IL 60067  
*www.pureline.com*

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS & DOMESTIC ANIMALS**

**DANGER**

**Corrosive.** Causes irreversible eye damage and skin burns. Harmful if swallowed. Irritating to nose and throat. May be harmful if inhaled. Do not get in eyes, on skin or on clothing. Wear protective eyewear (splash proof goggles). Wear protective clothing and rubber gloves when handling this product. Avoid breathing mists or fumes. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing to avoid fire.

**ENVIRONMENTAL HAZARDS**

This product is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other 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 the 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.

**PHYSICAL AND CHEMICAL HAZARDS**

Dry sodium chlorite is a strong oxidizing agent. This product becomes a fire or explosive hazard if allowed to dry. Mix only into water. Contamination may start a chemical reaction with generation of heat, liberation of hazardous gases (chlorine dioxide a poisonous, explosive gas), and possible fire and explosion. Do not contaminate with garbage, dirt, organic matter, household products, chemicals, soap products, paint products, solvents, acids, vinegar, beverages, oils, pine oil, dirty rags, or any other foreign matter.

**DIRECTIONS FOR USE**

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

**Directions for controlling the Growth of Algae in Recirculating Cooling Water Towers**

1. Clean badly fouled systems before starting treatment.
2. When algae are visible, add an initial dosage of 6.6 fluid ounces of Sodium Chlorite per 1,000 gals. of water in the system. Repeat if necessary until control is evident.
3. Where algae control is evident, use a subsequent dose of 3.3 fluid ounces of Sodium Chlorite solution per 1,000 gals. of water in the system twice a week or as needed to maintain control.
4. Add sodium chlorite directly to the cooling tower drip pan (cold water basin) near the inlet to the recirculating pump.

**Directions for Use in the Mechanical or Electrolytic Generation of Chlorine Dioxide as a Disinfectant, or for Microorganism or Mollusk Control, and as a Chemical Oxidant in Aquatic Systems**

**Feed requirements:** Feed rates of Electrolite 31 will depend on the severity of contamination and the degree of control desired. The exact dosage will depend on the size of the system and residual necessary for effective control. Depending on the generator type, Electrolite 31 may be diluted at the point of use to prepare a 3% to 25% active aqueous solution for use in chlorine dioxide generators.

Some examples of industrial applications of chlorine dioxide include:

- Potable water disinfection and removal of sulfide
- Control of bacterial slime and algae and mollusks in industrial recirculating and one-pass cooling systems
- Biocontrol in food processing flumes, water-using equipment, cooling water, and recycled waters.
- Disinfection of sewage and plant wastes.
- Destruction of phenolics, simple cyanides and sulfides by chemical oxidation.
- Bacterial slime control in white water paper mill systems.
- Bacterial control in oil well and petroleum systems.

**See product bulletin (or Technical Data Sheet) for specific instructions. Your PureLine representative can guide you in the application techniques.**

**Method of feed:** Large amounts of chlorine dioxide can be generated by several common methods, including:

1. The chlorine method which utilizes a Sodium Chlorite solution and chlorine gas, or
2. The hypochlorite method which utilizes a Sodium Chlorite solution, a hypochlorite solution, and an acid, or
3. ~~The Acid-chlorite method which utilizes a Sodium Chlorite solution and an acid, or~~ *delete*
4. The electrolytic method, which utilizes a Sodium Chlorite solution, with Sodium Chloride added, as needed.

Your PureLine representative can guide you in the selection, installation and operation for feed systems. Consult product bulletin and also the instructions on the chlorine dioxide generation system before using Electrolite 31.

User is responsible for compliance with applicable Federal, State, and Local laws regarding proper use and disposal of the chlorine dioxide generated.

**Potable Water Treatment**

Chlorine dioxide (ClO<sub>2</sub>) is used as both an oxidant and a disinfectant in drinking water treatment. The required dosages will vary with source water conditions and the degree of contamination present. For most municipal and public potable water systems, a chlorine dioxide residual concentration of up to 2 ppm is sufficient to provide adequate disinfection. Residual disinfectant byproducts must be monitored as required by the National Primary Drinking Water Regulations (40 CFR Part 141) and state drinking water standards.

**Industrial Cooling Water Treatment**

For control of bacterial slime and algae in industrial recirculating and one-pass cooling systems, the required dosages will vary depending on the exact application and the degree of contamination present. The required chlorine dioxide residual concentrations range between 0.1 and 5.0 ppm. Chlorine dioxide may be applied either continuously or intermittently. The typical chlorine dioxide residual concentration range is 0.1 - 1.0 ppm for continuous doses, and 0.1 - 5.0 ppm for intermittent doses. The minimum acceptable residual concentration of chlorine dioxide is 0.1 ppm for a minimum one minute contact time.

**Mollusk Control in Water Systems**

Chlorine dioxide generated from sodium chlorite may be used for mollusk control in commercial and industrial recirculating and one-pass cooling water systems. The required dosages will vary with the system type, system conditions, the degree of water contamination present and the desired level of control. Depending on the extent of the infestation, sodium chlorite may be applied either continuously or intermittently through a chlorine dioxide generating system to achieve the necessary chlorine dioxide residual concentration.

Veliger Control: Maintain a continuous chlorine dioxide residual of 0.1 - 0.5 ppm.

Intermittent Dose: Apply chlorine dioxide to obtain a chlorine dioxide residual concentration of 0.2 - 25 ppm. Repeat as necessary to maintain control.

Continuous Dose: Maintain a chlorine dioxide residual concentration of up to 2 ppm.

**Food Plant Process Water Treatment**

Chlorine dioxide generated from sodium chlorite is effective for use in controlling microbiological growth in flume water and other food processing water systems such as chill water systems and hydro coolers. The required dosages will vary with process conditions and the degree of contamination present. Depending on the requirements of the specific water system, sodium chlorite should be applied continuously or intermittently through a chlorine dioxide generating system to achieve a chlorine dioxide residual concentration between 0.25 and 5.0 ppm.

Water containing up to 3 ppm residual chlorine dioxide may be used for washing fruits and vegetables that are not raw agricultural commodities in accordance with 21CFR§173.300. Treatment of the fruits and vegetables with chlorine dioxide must be followed by a potable water rinse, or by blanching, cooking or canning.

*"chlorine dioxide in water generated ..."*



**Wastewater Treatment**

Chlorine dioxide ( $\text{ClO}_2$ ) is effective as both a disinfectant and an oxidant in wastewater treatment. The required dosages will vary with water conditions and the degree of contamination present. For most municipal and other wastewater systems, a chlorine dioxide residual concentration of up to 5 ppm is sufficient to provide adequate disinfection.

For sulfide odor control, between pH 5-9, a minimum of 5.2 ppm (wt) of chlorine dioxide should be applied to oxidize 1 ppm of sulfide (measured as sulfide ion). For phenol destruction, at pH less than 8, 1.5 ppm chlorine dioxide will oxidize 1 ppm phenol; at pH greater than 10, 3.3 ppm chlorine dioxide will oxidize 1 ppm phenol.

**Bacterial Slime Control in Paper Mills**

Chlorine dioxide generated from sodium chlorite is effective for use in controlling microbiological growth in white water paper mill systems. The required dosages will vary with the degree of microbiological and process contamination present. Depending on the specific requirements of the system, sodium chlorite should be applied continuously or intermittently through a chlorine dioxide generating system to achieve a chlorine dioxide residual concentration between 0.1 and 5.0 ppm. Intermittent treatments should be repeated as often as necessary to maintain control.

**Bacterial Control in Oil Wells And Petroleum Systems**

Chlorine dioxide is effective in the remediation of bacterial and sulfide contamination commonly found in oilfield production, injection and disposal fluids. The required dosages will vary with process conditions. Sodium chlorite may be applied either continuously or intermittently through a chlorine dioxide generating system to oil well production water as it is separated from the oil, and before it is re-injected into the well.

For continuous feeds, chlorine dioxide may be applied at dosages slightly higher than sulfide's oxidative demand as determined by a demand study. For intermittent treatment, chlorine dioxide should be applied at a shock dosage of 200-3000 ppm.

### STORAGE AND DISPOSAL

" Do not contaminate water, food, or feed by storage and disposal "

**PESTICIDE STORAGE:** Do not contaminate water, food or feed by storage or disposal. Keep product in tightly closed container when not in use. Don't drop, roll or skid drum. Keep upright. Always replace cover. Store in a cool, dry, well-ventilated area away from heat or open flame.

**EMERGENCY HANDLING:** In case of contamination or decomposition, do not reseal container. If possible, isolate container in open and well-ventilated area. Flood with large volumes of water. If fire occurs, extinguish fire by applying large quantities of water. Any unopened drums near the fire should be cooled by spraying with water.

**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.

**CONTAINER HANDLING: For non-refillable containers 5 gallons or smaller.**

Do not reuse or refill this container. Offer for recycling if available. Offer for reconditioning if appropriate. Triple rinse container promptly after emptying. *see letter*

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. 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 the container on its end and tip it back and forth several times. Turn the container over onto its other 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.

**For non-refillable containers that are larger than 5 gallons.**

Do not reuse or refill this container. Offer for recycling if available. Offer for reconditioning if appropriate. Triple Rinse container promptly after emptying. *see letter*

Triple rinse as follows: Empty remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. 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 the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or mix tank or store rinsate for later use or disposal. Repeat the procedure two more times.

For refillable containers, all sizes.

Refillable container. Refill this container with Electrolite 31 only. Do not reuse this container for any other purpose. Cleaning or pressure rinsing the container is the

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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 a mix tank. Fill the container about 10% full of water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing process two more times.

EPA Reg. No. 72852-

Lot#: \_\_\_\_\_  
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