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# U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Antimicrobials Division (7510C) 1200 Pennsylvania Avenue, NW Washington, D.C. 20460

EPA Reg. Number:

Date of Issuance:

79814-3

SEP 17 2014-

Term of Issuance:

Conditional

Name of Pesticide Product:

Sodium Chlorite - Precursor for Chlorine Dioxide Solution Pack

NOTICE OF PESTICIDE:

Reregistration
X Registration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

ICA TriNova LLC 277 Southfield Parkway - Suite 135 Forest Park, GA 30297-2527

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. 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/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. 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 sec. 3(c)(7)(A) provided that you:

- 1. Submit and/or cite all data required for registration/reregistration 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 reregistration of your product under FIFRA section 4.
- 2. Make the following label change:

Revise the EPA Registration Number to read, "EPA Reg. No. 79814-3."

Submit two copies of the revised final printed label for the record.

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.

Signature of Approving Official:

Date:

9-17-04

## Sodium Chlorite - Precursor for Chlorine Dioxide Solution Pack

ACTIVE INGREDIENT: Sodium Chlorite .....80% INERT INGREDIENTS......20% AVAILABLE CHLORINE.....125%

## KEEP OUT OF REACH OF CHILDREN **DANGER** FIRST AID

"Have the Product container or label with you when calling a poison control center or doctor, or going for treatment." You may also contact: HOTLINE NUMBER 1-800-262-8200 for emergency medical treatment information.

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

Brush off excess chemical

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 the skin persists

If swallowed: Call a poison control center or doctor immediately for treatment advice

Have a person sip a glass of water if able to swallow

Do not induce vomiting unless told to do so by the poison control center

or doctor.

Do not give anything by mouth to an unconscious person

If Inhaled:

Move person to fresh air and monitor for respiratory distress.

If cough or difficulty in breathing develops, consult a physician

immediately.

If a person is not breathing, call 911 or an ambulance, then give

artificial respiration.

Call a poison control center or doctor for further treatment advice.

#### NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage

#### **ICA TRINOVA**

277 Southfield Parkway Suite 135 Forest Park, GA 30297-2527

EPA Reg No. 79814-

EPA Est. 79814-GA-001

ACCEPTED with COMMENTS EPA Letter Dated:

SFP 17 2004

Under the Federal Insecticide, Fungicide, and Rodeniicide Act as amended, for the pesticide, amended, for the pendedde, registered under EPA Reg. No. 798/4-3

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS

#### **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 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 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.

Highly Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed. Irritating to nose and throat. Do not get in eyes, on skin or clothing. Wear protective eyewear (goggles or safety glasses). Wear protective clothing and rubber gloves when handling. Avoid breathing dust and fumes. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

#### **CHEMICAL HAZARDS**

Danger: strong oxidizing agent. 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 moisture, 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. Do not use moist or damp utensils.

#### **DIRECTIONS FOR USE**

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

#### Directions for Controlling the Growth of Algae in Recirculating Cooling Towers

1. Clean badly fouled systems before starting treatment. 2. When algae are visible, add an initial dosage of 5.3 fl. oz. (3.4 oz by wt.) of Sodium Chlorite per 1000 gals. of water in the system. Repeat if necessary until control is evident. 3. Where algae control is evident, use a subsequent dose of 2.6 fl. oz. (1.7 oz. By wt.) of Sodium Chlorite per 1000 gallons of water in the system twice per 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 the sodium chlorite 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, Sodium Chlorite Solution is typically diluted at the point of 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 onepass cooling systems.
- Bio-control 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 paper mill systems.
- Bacterial control in oil well and petroleum systems.

Method of feed: Large amounts of chlorine dioxide can be generated by two 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.

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 of up to 2 ppm is sufficient to provide adequate disinfection. Residual disinfectant and disinfection 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 of 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 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 continuously or intermittently through a chlorine dioxide generating system to achieve the necessary chlorine dioxide residual concentration.

<u>Veliger Control:</u> Maintain a continuous chlorine dioxide residual of 0.1 - 0.5 ppm. <u>Intermittent Dose:</u> Apply chlorine dioxide to obtain a chlorine dioxide residual concentration of 0.2 - 25 ppm. Repeat as necessary to maintain control. <u>Continuous Dose:</u> 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 hydrocoolers. 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 - 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 21CFRS173.300. Treatment of the fruits and vegetables with chlorine dioxide must be followed by a potable water rinse, or by blanching, cooking or canning.

#### Wastewater Treatment

Chlorine dioxide (ClO<sub>2</sub>) 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 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 bacteria 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

STORAGE: Do not contaminate water, food or feed by storage or disposal. Keep product in tightly closed container when not in use. Don not abrade package on or across hard surfaces. 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 containers 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 DISPOSAL:** Triple rinse container. Then puncture and dispose of in a sanitary landfill, or incineration or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

# WARRANTY CONDITIONS OF SALE

OUR RECOMMENDATIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Buyer assumes all risks of use, storage and handling of this material not in strict accordance and directions given herewith. In no case shall ICA TriNova LLC or the seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by ICA TriNova LLC and is accepted by the buyer.