

CLEAN FINISH

(15% Active Sodium Chlorite)

ACTIVE INGREDIENT:

Sodium Chlorite*.....15.0%

OTHER INGREDIENTS.....85.0%

TOTAL:.....100.0%

*Available chlorine

Contains 1.55 lbs. of sodium chlorite per gallon at 70° C.

KEEP OUT OF REACH OF CHILDREN DANGER

FIRST AID

If in eyes:	<ul style="list-style-type: none">· 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.
If on skin or clothing:	<ul style="list-style-type: none">· Take off contaminated clothing.· Rinse skin immediately with plenty of water for 15-20 minutes.· Call a poison control center or doctor for treatment advice.
If swallowed:	<ul style="list-style-type: none">· 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 the poison control center or doctor.· Do not give anything by mouth to an unconscious person.
If inhaled:	<ul style="list-style-type: none">· Move person to fresh air.· If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.· Call a poison control center or doctor for further treatment advice.

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

HOT LINE NUMBER: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may contact 1-800-424-9300 24 hours a day for emergency medical treatment information.

EPA REG No. 43553-35

Manufactured by:



CH₂O, Incorporated

8820 Old Hwy. 99 SE / Tumwater, WA 98501 / (360) 943-6063

PRECAUTIONARY STATEMENTS: HAZARDS TO HUMANS & DOMESTIC ANIMALS

DANGER: Corrosive. Causes irreversible eye and skin damage. Harmful if swallowed. Do not get in eyes, on skin, or on clothing. Avoid breathing mists or fumes. Wear protective eyewear (goggles, face shield or safety glasses), protective clothing and rubber gloves when handling this product. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS: This product is toxic to fish, aquatic invertebrates, oysters, and shrimp. 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 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.

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, liberating 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. CLEAN FINISH may be used alone or in chlorine dioxide generators. CLEAN FINISH controls the growth of microorganisms (algae, bacteria, slime and mollusks) found in aquatic environments such as food processing flumes, cooling water towers, irrigation line networks, wastewater treatment plants, poultry chill water, and other water-using equipment. CLEAN FINISH is also used to make sanitizing rinses in food processing plants.

CLEAN FINISH may be used to generate chlorine dioxide in mechanical or electrolytic generators which acts as a sanitizer or chemical oxidant in industrial applications such as

- Disinfection of and removal of sulfides in water.
- Bacterial slime, algae and mollusk control in industrial recirculating and one-pass cooling water systems, in food processing flumes, irrigation line networks, water-using equipment, cooling water, and recycled waters.
- Disinfection of plant and sewage wastes.
- Oxidative degradation of phenolics, simple cyanides and sulfides in treatment of wastewater.
- Control of bacterial slime in white water paper mill systems.

Follow the directions in the table below for how to use CLEAN FINISH in different systems. Also refer to the Technical Bulletins for the different uses of CLEAN FINISH.

DIRECTIONS FOR USE OF CLEAN FINISH ALONE RECIRCULATING COOLING WATER TOWERS

TARGET ORGANISMS: Algae

Before using CLEAN FINISH, clean all badly fouled systems. The CLEAN FINISH dose is to be added directly into the cooling tower cold water basin (tower drip pan) which is found near the inlet to the recirculating pump.

Application when algae are first detected: The initial dose is 14 fluid ounces of CLEAN FINISH per 1,000 gals. of water in the system. Make repeat applications if needed to ensure control.

Application when algae are under control: To maintain control, add 7 fluid ounces of CLEAN FINISH solution per 1,000 gals. of water to the system two times a week or as needed.

DIRECTIONS FOR GENERATION OF CHLORINE DIOXIDE USING CLEAN FINISH

AQUATIC SYSTEMS

TARGET ORGANISMS: Microorganisms and Mollusks

CLEAN FINISH can be used in aquatic systems to generate chlorine dioxide (using mechanical or electrolytic generators) which acts as a chemical oxidant to control microorganisms and mollusks or as a disinfectant. The rates of feed of CLEAN FINISH will vary depending on the degree of contamination and the extent of control desired. The dose rates of CLEAN FINISH will vary depending on the system size and the residual concentration needed to control the organisms.

Chlorine dioxide generators: A 3% to 15% active aqueous solution of CLEAN FINISH (depending on the type of generator employed) can be diluted at the point of use. Additional instructions on specific applications may be obtained from CH₂O's Product Bulletin or from your CH₂O representative.

Method of Feed: The most common methods used to generate large amounts of chlorine dioxide include:

- The Chlorine Method: use CLEAN FINISH plus chlorine gas.
- The Hypochlorite Method: use CLEAN FINISH, a hypochlorite solution, plus an acid.
- The Acid-Chlorite Method: use CLEAN FINISH plus an acid as the activating agent.

Additional information on feed systems (selection, installation and operation), may be obtained from your CH₂O representative. Read all instructions for the chlorine dioxide generator before using CLEAN FINISH.

The user is responsible for compliance with applicable federal, state and local laws regarding proper use and disposal of the chlorine dioxide.

DIRECTIONS FOR USING CLEAN FINISH

POULTRY CHILL WATER

TARGET ORGANISMS: Microorganisms

Microorganisms are controlled in poultry chill water treated with chlorine dioxide generated from CLEAN FINISH.

Application: Add CLEAN FINISH to a chlorine dioxide generator as needed to maintain a residual concentration of up to 3 parts per million (ppm) chlorine dioxide in the chiller water.

Restrictions: Do not exceed 3 ppm residual concentration of chlorine dioxide. Water must be analyzed using an appropriate method in accordance with 21 CFR 173.300.

FOOD PLANT PROCESS WATER TREATMENT (Flume Water Systems, Chill Water Systems, Hydrocoolers)

TARGET ORGANISMS: Microorganisms

Microorganisms are controlled in flume water or other food processing water systems treated with chlorine dioxide generated from CLEAN FINISH. The CLEAN FINISH dose rate will depend on the process conditions, the degree of contamination present, and the requirements of the specific water system.

Application: Apply CLEAN FINISH continuously or intermittently through a chlorine dioxide generating system to achieve a chlorine dioxide residual concentration between 0.25 and 5.0 ppm.

Washing of Fruits and Vegetables: Fruits and vegetables which are not defined as raw agricultural commodities (in accordance with 21 CFR 173.300) may be washed with water containing up to 3 ppm residual chlorine dioxide. After the chlorine dioxide wash, the fruits and vegetables must either be rinsed with potable water, or be blanched, cooked or canned before consumption or distribution in commerce.

INDUSTRIAL COOLING WATER TREATMENT (One-Pass or Recirculating)

TARGET ORGANISMS: Bacterial Slime and Algae

The CLEAN FINISH dose rate will depend on the exact application and the degree of contamination.

Application: For control of bacterial slime and algae, apply CLEAN FINISH through a chlorine dioxide generating system to achieve a chlorine dioxide residual concentration between 0.1 and 1.0 ppm for continuous doses, or between 0.1 and 5.0 ppm for intermittent doses. A chlorine dioxide concentration of 0.1 ppm is the minimum acceptable residual concentration for a minimum one minute contact time.

WATER SYSTEMS (including sprinkler, drip and other types of irrigation systems and commercial and industrial recirculating and one-pass cooling water systems)

TARGET ORGANISMS: Bacteria, Mollusks, and Slime

Use CLEAN FINISH to generate chlorine dioxide in water systems to control bacteria, mollusks, and slime. The dosage of CLEAN FINISH depends on several factors: the water system type, system conditions, the degree of water contamination, and the desired level of control.

Application: Apply CLEAN FINISH continuously or intermittently through a chlorine dioxide generating system to achieve a chlorine dioxide residual concentration as noted below:

- **Veliger Control:** Target the chlorine dioxide concentration to between 0.1 and 0.5 ppm from continuous dosing.
- **Intermittent Dose:** Target the residual chlorine dioxide concentration to between 0.2 and 25 ppm from intermittent dosing. Repeat applications as needed to maintain control.
- **Continuous Dose:** Target the chlorine dioxide concentrations to up to 2 ppm from continuous dosing.

WASTEWATER TREATMENT

TARGET ORGANISMS: Microorganisms

The CLEAN FINISH dose rates will vary with water conditions and the degree of contamination present. Adequate disinfection of most municipal and other wastewater systems is achieved from a chlorine dioxide concentration of up to 5 ppm.

Odor control of sulfides: For water with pH levels between 5 and 9, a minimum concentration of 5.2 ppm (by wt) of chlorine dioxide should be applied to oxidize 1 ppm of sulfide (measured as sulfide ion).

For phenol destruction: For water with pH levels less than 8, 1.5 ppm chlorine dioxide will oxidize 1 ppm phenol. For water with pH levels greater than 10, 3.3 ppm chlorine dioxide will oxidize 1 ppm phenol.

STORAGE AND DISPOSAL

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

STORAGE: Keep product in tightly closed container when not in use. Do not drop, roll or skid drum. Keep upright. Always replace cover. Store in a cool, 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:

[Non-Refillable Container > 5 gallons] Non-refillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

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.

Pressure Rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds, after the flow begins to drip. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

WARRANTY: As the use of this material is subject to conditions beyond the seller's control, seller makes no warranty express or implied as to this material or its use other than its chemical analysis when packed. To the extent consistent with applicable law, the total liability of seller shall be limited to the purchase price of the product. Any disputes will be settled via arbitration in accordance with purchase details on your invoice.

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