1744-22 5/13/2013 1/14

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

May 13, 2013

Rob R. Adams, Jr.
Adams Technology Systems
5145 Forest Run Trace, Suite B
Alpharetta, GA 30022-4504

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Subject: Sunny Sol® Sodium Hypochlorite 12.5%
EPA Registration No. 1744-22
Application Dated: April 15, 2013
Receipt Dated: April 22, 2013

Dear Mr. Adams:

This acknowledges the receipt of your Amendment application dated April 15, 2013 in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended.

Submission and Proposed Changes

To correct typographical errors (on pages 8 and 10), deletion of "virucide"(on page 11), and change "fl. oz." instead of "oz." throughout the label. The proposed submitted label dated 04/15/2015 (pin punch 04/22/2013).

Comments and Conditions:

Based on the review of the submitted materials, the amended label dated 04/15/2015 (pin punch 04/22/2013**) is acceptable**.

General Comments:

A stamped accepted copy of the label is enclosed. Submit one copy of your final printed labeling before distributing or selling the product bearing the revised labeling. This amendment and a copy of this letter have been inserted in your file for future reference

If you have any questions or comments concerning this letter, please contact David Liem at liem.david@epa.gov or call (703) 305-1284.

Sincerely,

Michael Mendelsohn
Acting Product Manager - Team 32
Regulatory Management Branch II
Antimicrobials Division (7510P)

Att: Accepted stamped label

2/14

SUNNY SOL®

Sodium Hypochlorite 12.5%

[ABN: Sunny Sol Macrofoulant]

ACTIVE INGREDIENT:	
Sodium Hypochlorite.....	12.5%
OTHER INGREDIENTS:	87.5%
TOTAL:.....	100.0%

Total Available chlorine is 11.9%

KEEP OUT OF REACH OF CHILDREN

DANGER

See Back *[Side, Booklet, others as appropriate]* Panel for Other Precautions

Manufactured by:
JCI Jones Chemicals, Inc.
Sarasota, FL 34236
and Principal Cities

JCI Jones Chemicals, Inc.
100 Sunny Sol Boulevard
Caledonia, NY 14423
(585) 538-2314

EPA Reg. No.: 1744-22 EPA Est. No.: 1744-NY-2
[Alternate EPA Establishments: May be jet coded or designated in the Lot# or Batch#]

Net Contents: 1 gallon (3.79 L) *[others as appropriate]*

ACCEPTED
May 13, 2013
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 1744-22

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 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 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 the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If inhaled	• 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.

For emergency information call the National Pesticide Information center at 1-800-858-7378 or the Poison Control Center at 1-800-222-1222. 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.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS & DOMESTIC ANIMALS

DANGER. Corrosive. Causes irreversible eye damage. Do not get in eyes, on skin, or on clothing. Wear safety glasses or goggles and rubber gloves when handling this product. Wash after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Avoid breathing vapors. Vacate poorly ventilated areas as soon as possible. Do not return until strong odors have dissipated. Remove and wash contaminated clothing before reuse

[For drip irrigation and/or rice seed use:]

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

A. Goggles or face shield
B. Long-sleeved shirt and long pants
C. Waterproof gloves
D. Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

PHYSICAL OR CHEMICAL HAZARDS: Strong oxidizing agent. Mix only with water according to label directions. Mixing this product with chemicals (e.g. ammonia, acids, detergents, etc.) or organic matter (e.g. urine, feces, etc.) will release chlorine gas which is irritating to eyes, lungs and mucous membranes.

ENVIRONMENTAL HAZARD: This pesticide is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, ponds, streams, 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.

STORAGE AND DISPOSAL

Do not contaminate food or feed by storage, disposal or cleaning of equipment.

Pesticide Storage: Store this product in a cool, dry area away from direct sunlight and heat to avoid deterioration. In case of spill, flood areas with large amounts of water.

Pesticide Disposal: Product or rinsates that cannot be used must be diluted with water before disposal in a sanitary sewer or other approved disposal facility.

Container Handling and Disposal: Tank Cars and Tank Trucks: Refill with bleach or triple or pressure rinse empty tank car or tank truck to remove bleach residues before filling with other product.

Drums, Totes, and Intermediate Bulk Containers (IBC): Refill with bleach only. Triple or pressure rinse nonrefillable or cracked refillable containers and offer for recycling, reconditioning or disposal. Dispose of residue rinsates in a sanitary sewer or other approved disposal facility.

NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OTHERWISE ARE MADE OR CONTAINED HEREIN, EXCEPT THAT PRODUCT CONFORMS TO JCI's SPECIFICATIONS THEREFORE, JCI's exclusive responsibility for any claims, including claims based on negligence, arising in connection with the purchase, use, storage or handling of the product will in no event exceed JCI's sales price for the product with respect to which damages are claimed. In no event will JCI be liable for any incidental or consequential damages arising in connection with the purchase, use, storage or handling of the product. Buyer accepts full responsibility for compliance with all applicable Federal, state and local laws and regulations.

SUNNY SOL®

Sodium Hypochlorite 12.5%

READ THE PRECAUTIONARY STATEMENTS BEFORE USE

DIRECTIONS FOR USE

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

Note: This product degrades with age. Use a chlorine test kit and increase dosage, as necessary, to obtain the required level of available chlorine.

CLEANING FORMULATIONS, BLEACHING, & NON-PESTICIDE CHEMICAL MANUFACTURING

This product may be used for cleaning formulations, bleaching and non-pesticide chemical manufacturing. Only specifically designed handling and dispensing equipment must be used in accordance with manufacturer's instructions and according to operating instructions or product formulations defined by the use facility.

SWIMMING POOL WATER DISINFECTION - For a new pool or spring start-up, superchlorinate with 52 to 104 fl. oz. of product for each 10,000 gallons of water to yield 5 to 10 ppm available chlorine by weight. Check the level of available chlorine with a test kit. Adjust and maintain pool water pH to 7.2 to 7.6. Adjust and maintain the alkalinity of the pool to between 50 to 100 ppm.

To maintain the pool, add manually or by a feeder device 11 fl. oz. of this product for each 10,000 gallons of water to yield an available chlorine residual between 0.6 to 1.0 ppm by weight. Stabilized pools must maintain a residual of 1.0 to 1.5 ppm available chlorine. Test the pH, available chlorine residual and alkalinity of the water frequently with appropriate test kits. Frequency of water treatment will depend upon temperature and number of swimmers.

Every 7 days, or as necessary, superchlorinate the pool with 52 to 104 fl. oz. of product for each 10,000 gallons of water to yield 5 to 10 ppm available chlorine by weight. Check the level of available chlorine with a test kit. Re-entry into treated pools is prohibited at levels above 4 ppm due to risk of bodily harm.

At the end of the swimming pool season or when water is to be drained from the pool, chlorine must be allowed to dissipate from treated pool water before discharge. Do not chlorinate pool within 24 hours prior to discharge.

Winterizing Pools - While water is still clear and clean, apply 3 fl. oz. of product per 1000 gallons, while filter is running, to obtain 3.0 ppm available chlorine residual, as determined by a suitable test kit. Cover pool, prepare heater, filter and heater components for winter, by following manufacturers' instructions.

SPAS/HOT-TUBS - Apply 5 fl. oz. of product per 1000 gallons of water to obtain a free available chlorine concentration of 5 ppm, as determined by a suitable chlorine test kit. Adjust and maintain pool water pH to between 7.2 and 7.8. Some oils, lotions, fragrances, cleaners, etc. may cause foaming or cloudy water as well as reduce the efficiency of the product. Re-entry into treated spas/hot tubs is prohibited at levels above 5 ppm due to risk of bodily harm.

To maintain the water, apply 5 fl. oz. of product per 1000 gallons of water over the surface to maintain a chlorine concentration of 5 ppm. After each use, shock treat with 8 fl. oz. of this product per 500 gallons of water to control odor and algae. Re-entry into treated spas/hot tubs is prohibited at levels above 5 ppm due to risk of bodily harm.

During extended periods of disuse, add 3 fl. oz. of product daily per 1000 gallons of water to maintain a 3 ppm chlorine concentration.

HUBBARD AND IMMERSION TANKS - (Not Approved for Use in California) Add 5 fl. oz. of this product per 200 gallons of water before patient use to obtain a chlorine residual of 25 ppm, as determined by a suitable test kit. Adjust and maintain the water pH to between 7.2 and 7.6. After each use drain the tank. Add 5 fl. oz. to a bucket of water and circulate this solution through the agitator of the tank for 15 minutes and then rinse out the solution. Clean tank thoroughly and dry with clean cloths.

HYDROTHERAPY TANKS - Add 1 fl. oz. of this product per 1000 gallons of water to obtain a chlorine residual of 1 ppm, as determined by a suitable chlorine test kit. Pool must not be entered until the chlorine residual is below 3 ppm. Adjust and maintain the water pH to between 7.2 and 7.6. Operate pool filter continuously. Drain pool weekly, and clean before refilling.

SANITIZATION OF NONPOROUS FOOD CONTACT SURFACES

RINSE METHOD - A solution of 100 ppm available chlorine may be used in the sanitizing solution if a chlorine test kit is available. Solutions containing an initial concentration of 100 ppm available chlorine must be tested and adjusted periodically to ensure that the available chlorine does not drop below 50 ppm. Prepare a 100 ppm sanitizing solution by thoroughly mixing 1 fl. oz. of this product with 10 gallons of water. If no test kit is available, prepare a sanitizing solution by thoroughly mixing 2 fl. oz. of this product with 10 gallons of water to provide approximately 200 ppm available chlorine by weight. Clean equipment surfaces in the normal manner. Prior to use, rinse all surfaces thoroughly with the sanitizing solution, maintaining contact with the sanitizer for at least 2 minutes. If solution contains less than 50 ppm available chlorine, as determined by a suitable test kit, either discard the solution or add sufficient product to reestablish a 200 ppm residual. Do not rinse equipment with water after treatment and do not soak equipment overnight. Sanitizers used in automated systems may be used for general cleaning but may not be reused for sanitizing purposes.

IMMERSION METHOD - A solution of 100 ppm available chlorine may be used in the sanitizing solution if a chlorine test kit is available. Solutions containing an initial concentration of 100 ppm available chlorine must be tested and adjusted periodically to ensure that the available chlorine does not drop below 50 ppm. Prepare a 100 ppm sanitizing solution by thoroughly mixing 1 fl. oz. of this product with 10 gallons of water. If no test kit is available, prepare a sanitizing solution by thoroughly mixing 2 fl. oz. of this product with 10 gallons of water to provide approximately 200 ppm available chlorine by weight.

5/14

Clean equipment in the normal manner. Prior to use, immerse equipment in the sanitizing solution for at least 2 minutes and allow the sanitizer to drain. If solution contains less than 50 ppm available chlorine, as determined by a suitable test kit, either discard the solution or add sufficient product to reestablish a 200 ppm residual. Do not rinse equipment with water after treatment.

Sanitizers used in automated systems may be used for general cleaning but may not be reused for sanitizing purposes.

FLOW/PRESSURE METHOD - Disassemble equipment and thoroughly clean after use. Assemble equipment in operating position prior to use. Prepare a volume of a 200 ppm available chlorine sanitizing solution equal to 110 % of volume capacity of the equipment by mixing the product in a ratio of 2 fl. oz. product with 10 gallons of water. Pump solution through the system until full flow is obtained at all extremities, the system is completely filled with the sanitizer and all air is removed from the system. Close drain valves and hold under pressure for at least 2 minutes to ensure contact with all internal surfaces. Remove some cleaning solution from drain valve and test with a chlorine test kit. Repeat entire cleaning/sanitizing process if effluent contains less than 50 ppm available chlorine.

CLEAN-IN-PLACE METHOD - Thoroughly clean equipment after use. Prepare a volume of a 200 ppm available chlorine sanitizing solution equal to 110% of volume capacity of the equipment by mixing the product in a ratio of 2 fl. oz. product with 10 gallons of water. Pump solution through the system until full flow is obtained at all extremities, the system is completely filled with the sanitizer and all air is removed from the system. Close drain valves and hold under pressure for at least 10 minutes to ensure contact with all internal surfaces. Remove some cleaning solution from drain valve and test with a chlorine test kit. Repeat entire cleaning/ sanitizing process if effluent contains less than 50 ppm available chlorine.

SPRAY/FOG METHOD - Pre-clean all surfaces after use. Use a 200 ppm available chlorine solution to control bacteria, mold or fungi and a 600 ppm solution to control bacteriophage. Prepare a 200 ppm sanitizing solution of sufficient size by thoroughly mixing the product in a ratio of 2 fl. oz. product with 10 gallons of water. Prepare a 600 ppm solution by thoroughly mixing the product in a ratio of 6 fl. oz. product with 10 gallons of water. Use spray or fogging equipment, which can resist hypochlorite solutions. Always empty and rinse spray/fog equipment with potable water after use. Thoroughly spray or fog all surfaces until wet, allowing excess sanitizer to drain. Vacate area for at least 2 hours. Prior to using equipment, rinse all surfaces treated with a 600 ppm solution with a 200 ppm solution.

SANITIZATION OF POROUS FOOD CONTACT SURFACES

RINSE METHOD - Prepare a 600 ppm solution by thoroughly mixing 6 fl. oz. of this product with 10 gallons of water. Clean surfaces in the normal manner. Rinse all surfaces thoroughly with the 600 ppm solution, maintaining contact for at least 2 minutes Prepare a 200 ppm sanitizing solution by thoroughly mixing 2 fl. oz. of this product with 10 gallons of water. Prior to using equipment, rinse all surfaces with a 200 ppm available chlorine solution. Do not rinse and do not soak equipment overnight.

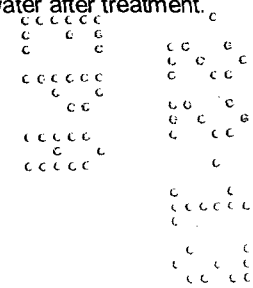
IMMERSION METHOD - Prepare a 600 ppm solution by thoroughly mixing, in an immersion tank, 6 fl. oz. of this product with 10 gallons of water. Clean equipment in the normal manner. Immerse equipment in the 600 ppm solution for at least 2 minutes. Prepare a 200 ppm sanitizing solution by thoroughly mixing 2 fl. oz. of this product with 10 gallons of water. Prior to using equipment, immerse all surfaces in a 200 ppm available chlorine solution. Do not rinse and do not soak equipment overnight.

SPRAY/FOG METHOD - Pre-clean all surfaces after use. Prepare a 600 ppm available chlorine sanitizing solution of sufficient size by thoroughly mixing the product in a ratio of 6 fl. oz. product with 10 gallons of water, Use spray or fogging equipment which can resist hypochlorite solutions. Always empty and rinse spray/fog equipment with potable water after use. Thoroughly spray or fog all surfaces until wet, allowing excess sanitizer to drain. Vacate area for at least 2 hours. Prior to using equipment, rinse all surfaces with a 200 ppm available chlorine solution. Prepare a 200 ppm sanitizing solution by thoroughly mixing 2 fl. oz. of this product with 10 gallons of water.

SANITIZATION OF NONPOROUS NON-FOOD CONTACT SURFACES

RINSE METHOD - Prepare a sanitizing solution by thoroughly mixing 2 fl. oz. of this product with 10 gallons of water to provide approximately 200 ppm available chlorine by weight. Clean equipment surfaces in the normal manner. Prior to use, rinse all surfaces thoroughly with the sanitizing solution, maintaining contact with the sanitizer for at least 2 minutes. Do not rinse equipment with water after treatment and do not soak equipment overnight.

IMMERSION METHOD - Prepare a sanitizing solution by thoroughly mixing, in an immersion tank, 2 fl. oz. of this product with 10 gallons of water to provide approximately 200 ppm available chlorine by weight. Clean equipment in the normal manner. Prior to use, immerse equipment in the sanitizing solution for at least 2 minutes and allow the sanitizer to drain. Do not rinse equipment with water after treatment.



SPRAY/FOG METHOD - Pre-clean all surfaces after use. Prepare a 200 ppm available chlorine sanitizing solution of sufficient size by thoroughly mixing the product in a ratio of 2 fl. oz. product with 10 gallons of water. Use spray or fogging equipment, which can resist hypochlorite solutions. Prior to using equipment, thoroughly spray or fog all surfaces until wet, allowing excess sanitizer to drain. Vacate area for at least 2 hours.

DISINFECTION OF NONPOROUS NON-FOOD CONTACT SURFACES

RINSE METHOD - Prepare a disinfecting solution by thoroughly mixing 6 fl. oz. of this product with 10 gallons of water to provide approximately 600 ppm available chlorine by weight. Clean equipment surfaces in the normal manner. Prior to use, rinse all surfaces thoroughly with the disinfecting solution, maintaining contact with the solution for at least 10 minutes. Do not rinse equipment with water after treatment and do not soak equipment overnight.

IMMERSION METHOD - Prepare a disinfecting solution by thoroughly mixing, in an immersion tank, 6 fl. oz. of this product with 10 gallons of water to provide approximately 600 ppm available chlorine by weight. Clean equipment in the normal manner. Prior to use, immerse equipment in the disinfecting solution for at least 10 minutes and allow the sanitizer to drain. Do not rinse equipment with water after treatment.

SANITIZATION OF POROUS NON-FOOD CONTACT SURFACES

RINSE METHOD - Prepare a sanitizing solution by thoroughly mixing 6 fl. oz. of this product with 10 gallons of water to provide approximately 600 ppm available chlorine by weight. Clean surfaces in the normal manner. Prior to use, rinse all surfaces thoroughly with the sanitizing solution, maintaining contact with the sanitizer for at least 2 minutes. Do not rinse equipment with water after treatment and do not soak equipment overnight.

IMMERSION METHOD - Prepare a sanitizing solution by thoroughly mixing, in an immersion tank, 6 fl. oz. of this product with 10 gallons of water to provide approximately 600 ppm available chlorine by weight. Clean equipment in the normal manner. Prior to use, immerse equipment in the sanitizing solution for at least 2 minutes and allow the sanitizer to drain. Do not rinse equipment with water after treatment.

SPRAY/FOG METHOD - After cleaning, sanitize non-food contact surfaces with 600 ppm available chlorine by thoroughly mixing the product in a ratio of 6 fl. oz. of this product with 10 gallons of water. Use spray or fogging equipment, which can resist hypochlorite solutions. Always empty and rinse spray/fog equipment with potable water after use. Prior to using equipment, thoroughly fog all surfaces until wet, allowing excess sanitizer to drain. Vacate area for at least 2 hours.

SEWAGE & WASTEWATER EFFLUENT TREATMENT

The disinfection of sewage effluent must be evaluated by determining the total number of coliform bacteria and/or fecal coliform bacteria, as determined by the Most Probable Number (MPN) procedure, to ensure that the chlorinated effluent has been reduced to or below the maximum permitted by the controlling regulatory jurisdiction.

On the average, satisfactory disinfection of secondary waste water effluent can be obtained when the chlorine residual is 0.5 ppm after 15 minutes contact. Although the chlorine residual is the critical factor in disinfection, the importance of correlating chlorine residual with bacterial kill must be emphasized. The MPN of the effluent, which is directly related to the water quality standards requirements, must be the final and primary standard and the chlorine residual must be considered an operating standard valid only to the extent verified by the coliform quality of the effluent.

The following are critical factors affecting waste water disinfection.

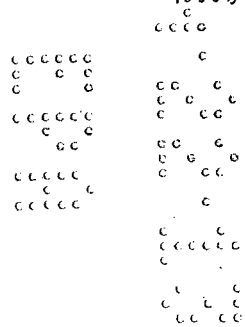
1. Mixing: It is imperative that the product and the waste water be instantaneously and completely flash mixed to assure reaction with every chemically active soluble and particulate component of the waste water.

2. Contacting: Upon flash mixing, the flow through the system must be maintained.

3. Dosage/Residual Control: Successful disinfection is extremely dependent on response to fluctuating chlorine demand to maintain a predetermined, desirable chlorine level. Secondary effluent must contain 0.2 to 1.0 ppm chlorine residual after a 15 to 30 minute contact time. A reasonable average of residual chlorine is 0.5 ppm after 15 minutes contact time.

EFFLUENT SLIME CONTROL - Apply a 100 to 1000 ppm available chlorine solution at a location which will allow complete mixing. Prepare this solution by mixing 10 to 100 fl. oz. of this product with 100 gallons of water. Once control is evident, apply a 15 ppm available chlorine solution. Prepare this solution by mixing 3 fl. oz. of this product with 100 gallons of water.

FILTER BEDS - SLIME CONTROL: Remove filter from service, drain to a depth of 1 ft. above filter sand, and add 80 fl. oz. of product per 20 sq/ft evenly over the surface. Wait 30 minutes before draining water to a level that is even with the top of the filter. Wait for 4 to 6 hours before completely draining and backwashing filter.



DISINFECTION OF DRINKING WATER (EMERGENCY/PUBLIC/INDIVIDUAL SYSTEMS)

PUBLIC SYSTEMS: Mix a ratio of 1 fl. oz. of this product to 100 gallons of water. Begin feeding this solution with a hypo-chlorinator until free available chlorine residual of at least 0.2 ppm and no more than 0.6 ppm is attained throughout the distribution system. Check water frequently with a chlorine test kit. Bacteriological sampling must be conducted at a frequency no less than that prescribed by the National Primary Drinking Water Regulations. Contact your local Health Department for further details.

INDIVIDUAL SYSTEMS: - DUG WELLS Upon completion of the casing (lining) wash the interior of the casing (lining) with a 100 ppm available chlorine solution using a stiff brush. This solution can be made by thoroughly mixing 1 fl. oz. of this product into 10 gallons of water. After covering the well, pour the sanitizing solution into the well through both the pipe sleeve opening and the pipeline. Wash the exterior of the pump cylinder also with the sanitizing solution. Start pump and pump water until strong odor of chlorine in water is noted. Stop pump and wait at least 24 hours. After 24 hours, flush well until all traces of chlorine have been removed from the water. Contact your local Health Department for further details.

INDIVIDUAL WATER SYSTEMS: DRILLED, DRIVEN & BORED WELLS - Run pump until water is as free from turbidity as possible. Pour a 100 ppm available chlorine sanitizing solution into the well. This solution can be made by thoroughly mixing 1 fl. oz. of this product into 10 gallons of water. Add 5 to 10 gallons of clean, chlorinated water to the well in order to force the sanitizer into the rock formation. Wash the exterior of pump cylinder with the sanitizer. Drop pipeline into well, start pump and pump water until strong odor of chlorine in water is noted. Stop pump and wait at least 24 hours. After 24 hours, flush well until all traces of chlorine have been removed from the water. Deep wells with high water levels may necessitate the use of special methods for introduction of the sanitizer into the well. Consult your local Health Department for further details.

INDIVIDUAL WATER SYSTEMS: FLOWING ARTESIAN WELLS Artesian wells generally do not require disinfection. If analyses indicate persistent contamination, the well must be disinfected. Consult your local Health Department for further details.

EMERGENCY DISINFECTION - When boiling of water for 1 minute is not practical, water can be made potable by using this product. Prior to addition of the sanitizer, remove all suspended material by filtration or by allowing it to settle to the bottom. Decant the clarified, contaminated water to a clean container and add 1 drop of this product to 20 gallons of water. Allow the treated water to stand for 30 minutes. Properly treated water must have a slight chlorine odor, if not, repeat dosage and allow the water to stand an additional 15 minutes. The treated water can then be made palatable by pouring it between clean containers for several times.

PUBLIC WATER SYSTEMS

RESERVOIRS - ALGAE CONTROL: Hypo-chlorinate streams feeding the reservoir. Suitable feeding points must be selected on each stream at least 50 yards upstream from the points of entry into the reservoir.

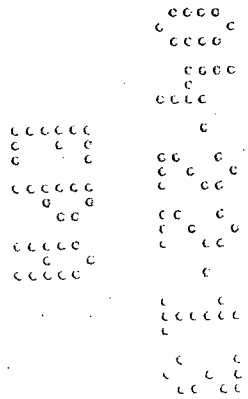
MAINS - Thoroughly flush section to be sanitized by discharging from hydrants. Permit a water flow of at least 2.5 feet per minute to continue under pressure while injecting this product by means of a hypo-chlorinator. Stop water flow when a chlorine residual test of 50 ppm is obtained at the low pressure end of the new main section after a 24 hour retention time. When chlorination is completed, the system must be flushed free of all heavily chlorinated water.

NEW TANKS, BASINS, ETC. - Remove all physical soil from surfaces. Place 20 fl. oz. of this product for each 5 cubic feet of working capacity *(500* ppm available chlorine). Fill to working capacity and allow to stand for at least 4 hours. Drain and flush with potable water and return to service.

NEW FILTER SAND - Apply 80 fl. oz. of this product for each 150 to 200 cubic feet of sand. The action of the product dissolving as the water passes through the bed will aid in sanitizing the new sand.

NEW WELLS - Flush the casing with a 50 ppm available chlorine solution of water containing 5 fl. oz. of this product for each 100 gallons of water. The solution must be pumped or fed by gravity into the well after thorough mixing with agitation. The well must stand for several hours or overnight under chlorination. It may then be pumped until a representative raw water sample is obtained. Bacterial examination of the water will indicate whether further treatment is necessary.

EXISTING EQUIPMENT - Remove equipment from service, thoroughly clean surfaces of all physical soil. Sanitize by placing 21 fl. oz. of this product for each 5 cubic feet capacity (approximately 500 ppm available chlorine). Fill to working capacity and let stand at least 4 hours. Drain and place in service. If the previous treatment is not practical, surfaces may be sprayed with a solution containing 5 fl. oz. of this product for each 5 gallons of water (approximately 1000 ppm available chlorine). After drying, flush with water and return to service.



EMERGENCY DISINFECTION AFTER FLOODS

WELLS - Thoroughly flush contaminated casing with a 500 ppm available chlorine solution. Prepare this solution by mixing 5 fl. oz. of this product with 10 gallons of water. Backwash the well to increase yield and reduce turbidity, adding sufficient chlorinating solution to the backwash to produce a 10 ppm available chlorine residual, as determined by a chlorine test kit. After the turbidity has been reduced and the casing has been treated, add sufficient chlorinating solution to produce 50 ppm available chlorine residual. Agitate the well water for several hours and take a representative water sample. Retreat well if water samples are biologically unacceptable.

RESERVOIRS - In case of contamination by overflowing streams, establish hypo-chlorinating stations upstream of the reservoir. Chlorinate the inlet water until the entire reservoir obtains 0.2 ppm available chlorine residual, as determined by a suitable chlorine test kit. In case of contamination from surface drainage, apply sufficient product directly to the reservoir to obtain 0.2 ppm available chlorine residual in all parts of the reservoir.

BASINS, TANKS, FLUMES, ETC. - Thoroughly clean all equipment, then apply 20 fl. oz. of product per 5 cu. ft. of water to obtain 500 ppm available chlorine, as determined by a suitable test kit. After 24 hours drain, flush, and return to service. If the previous method is not suitable, spray or flush the equipment with a solution containing 5 fl. oz. of this product for each 5 gallons of water (1000 ppm available chlorine). Allow to stand for 2 to 4 hours, flush and return to service.

FILTERS - When the sand filter needs replacement, apply 80 fl. oz. of this product for each 150 to 200 cubic feet of sand. When the filter is severely contaminated, additional product must be distributed over the surface at the rate of 80 fl. oz. per 20 sq. ft. Water must stand at a depth of 1 foot above the surface of the filter bed for 4 to 24 hours. When filter beds can be back washed of mud and silt, apply 80 fl. oz. of this product per each 50 sq. ft., allowing the water to stand at a depth of 1 foot above the filter sand. After 30 minutes, drain water to the level of the filter. After 4 to 6 hours drain, and proceed with normal back washing.

DISTRIBUTION SYSTEM - Flush repaired or replaced section with water. Establish a hypo-chlorinating station and apply sufficient product until a consistent available chlorine residual of at least 10 ppm remains after a 24 hour retention time. Use a chlorine test kit.

EMERGENCY DISINFECTION AFTER FIRES

CROSS CONNECTIONS OR EMERGENCY CONNECTIONS Hypochlorination or gravity feed equipment must be set up near the intake of the untreated water supply. Apply sufficient product to give a chlorine residual of at least 0.1 to 0.2 ppm at the point where the untreated supply enters the regular distribution system. Use a chlorine test kit.

EMERGENCY DISINFECTION AFTER DROUGHTS

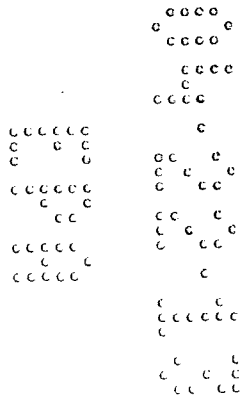
SUPPLEMENTARY WATER SUPPLIES - Gravity or mechanical hypochlorite feeders must be set up on a supplementary line to dose the water to a minimum chlorine residual of 0.2 ppm after a 20 minute contact time. Use a chlorine test kit.

WATER SHIPPED IN BY TANKS, TANK CARS, TRUCKS, ETC. - Thoroughly clean all containers and equipment. Spray a 500 ppm available chlorine solution and rinse with potable water after 5 minutes. This solution is made by mixing 5 fl. oz. of this product for each 10 gallons of water. During filling of containers, dose with sufficient amounts of this product to provide at least a 0.2 ppm chlorine residual. Use a chlorine test kit.

EMERGENCY DISINFECTION AFTER MAIN BREAKS

MAINS - Before assembly of the repaired section, flush out mud and soil. Permit a water flow of at least 2.5 feet per minute to continue under pressure while injecting this product by means of a hypo-chlorinator. Stop water flow when a chlorine residual test of 50 ppm is obtained at the low pressure end of the new main section after a 24 hour retention time. When chlorination is completed, the system must be flushed free of all heavily chlorinated water.

COOLING TOWER/EVAPORATIVE CONDENSER WATER SLUG FEED METHOD - Initial dose: When system is noticeably fouled, apply 52 to 104 fl. oz. of this product per 10,000 gallons of water in the system to obtain from 5 to 10 ppm available chlorine. Repeat until control is achieved. Subsequent dose: When microbial control is evident, add 11 fl. oz. of this product per 10,000 gallons of water in the system daily, or as needed to maintain control and keep the chlorine residual at 1 ppm. Badly fouled systems must be cleaned before treatment is begun.



INTERMITTENT FEED METHOD - Initial Dose: When system is noticeably fouled, apply 52 to 104 fl. oz. of this product per 10,000 gallons of water in the system to obtain 5 to 10 ppm available chlorine. Apply half (or 1/3, 1/4, or 1/5) of this initial dose when half (or 1/3, 1/4, or 1/5) of the water in the system has been lost by blow down.

Subsequent Dose: When microbial control is evident, add 11 fl. oz. of this product per 10,000 gallons of water in the system to obtain a 1 ppm residual. Apply half (or 1/3, 1/4, or 1/5) of this initial dose when half (or 1/3, 1/4, or 1/5) of the water in the system has been lost by blow down. Badly fouled systems must be cleaned before treatment is begun.

CONTINUOUS FEED METHOD - Initial dose: when system is noticeably fouled, apply 52 to 104 fl. oz. of this product per 10,000 gallons of water in the system to obtain 5 to 10 ppm available chlorine.

Subsequent Dose: Maintain this treatment level by starting a continuous feed of 1 fl. oz. of this product per 1,000 gallons of water lost by blow down to maintain a 1 ppm residual. Badly fouled systems must be cleaned before treatment is begun.

LAUNDRY SANITIZERS

Household Laundry Sanitizers

IN SOAKING SUDS - Thoroughly mix 2 fl. oz. of this product to 10 gallons of wash water to provide 200 ppm available chlorine. Wait 5 minutes, add soap or detergent. Immerse laundry for at least 11 minutes prior starting the wash/rinse cycle.

IN. WASHING SUDS - Thoroughly mix 2 fl. oz. of this product to 10 gallons of wash water containing clothes to provide 200 ppm available chlorine. Wait 5 minutes, then add soap or detergent and start the wash/rinse cycle.

Commercial Laundry Sanitizers

Wet fabrics or clothes must be spun dry prior to sanitization. Thoroughly mix 2 fl. oz. of this product with 10 gallons of water to yield 200 ppm available chlorine. Promptly after mixing the sanitizer, add the solution into the pre-wash prior to washing fabrics/clothes in the regular wash cycle with a good detergent. Test the level of available chlorine if solution has been allowed to stand. Add more of this product if the available chlorine level has dropped below 200 ppm.

FARM PREMISES

Remove all animals, poultry, and feed from premises, vehicles, and enclosures. Remove all litter and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other facilities occupied or traversed by animals or poultry. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. To disinfect, saturate all surfaces with a solution of at least 1000 ppm available chlorine for a period of 10 minutes. A 1000 ppm solution can be made by thoroughly mixing 11 fl. oz. of this product with 10 gallons of water. Immerse all halters, ropes and other types of equipment used in handling and restraining animals or poultry, as well as the cleaned forks, shovels and scrapers used for removing litter and manure. Ventilate buildings, cars, boats and other closed spaces. Do not house livestock of poultry or employ equipment until chlorine odor has been dissipated. All treated feed racks, mangers, troughs, automatic feeders, fountains and waterers must be rinsed with potable water before reuse.

PULP AND PAPER MILL PROCESS WATER SYSTEMS

SLUG FEED METHOD - Initial Dose: When system is noticeably fouled, apply 52 to 104 fl. oz. of this product per 10,000 gallons of water in the system to obtain from 5 to 10 ppm available chlorine. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 11 fl. oz. of this product per 10,000 gallons of water in the system daily, or as needed to maintain control and keep the chlorine residual at 1 ppm. Badly fouled systems must be cleaned before treatment is begun.

INTERMITTENT FEED METHOD - Initial Dose: when system is noticeably fouled, apply 52 to 104 fl. oz. of this product per 10,000 gallons of water in the system to obtain 5 to 1 ppm available chlorine. Apply half (or 1/3, 1/4, or 1/5) of this initial dose when half (or 1/3, 1/4, or 1/5) of the water in the system has been lost by blow down.

Subsequent Dose: When microbial control is evident, add 11 fl. oz. of this product per 10,000 gallons of water in the system to obtain a 1 ppm residual. Apply half (or 1/3, 1/4, or 1/5) of this initial dose when half (or 1/3, 1/4, or 1/5) of the water in the system has been lost by blow down. Badly fouled systems must be cleaned before treatment is begun.

CONTINUOUS FEED METHOD - Initial dose: When system is noticeably fouled, apply 52 to 104 fl. oz. of this product per 10,000 gallons of water in the system to obtain 5 to 10 ppm available chlorine.

Subsequent Dose: Maintain this treatment level by starting a continuous feed of 1 fl. oz. of this product per 1,000 gallons of water lost by blow down to maintain a 1 ppm residual. Badly fouled systems must be cleaned before treatment is begun.

AGRICULTURAL USES

POST-HARVEST PROTECTION - Potatoes can be sanitized after cleaning and prior to storage by spraying with a sanitizing solution at a level of 1 gallon of sanitizing solution per tons of potatoes. Thoroughly mix 1 fl. oz. of this product to 2 gallons of water to obtain 500 ppm available chlorine.

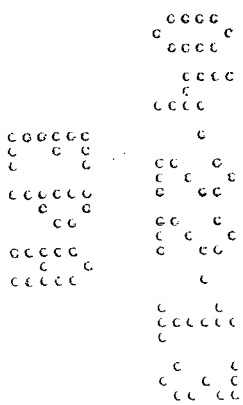
BEE CELLS AND BEE BOARDS - Disinfect leaf cutting bee cells and bee boards by immersion in a solution containing 1 ppm available chlorine for 3 minutes. Allow cells to drain for 2 minutes and dry for 4 to 5 hours or until no chlorine odor can be detected. This solution is made by thoroughly mix 1 Tsp. of this product to 100 gallons of water. The bee domicile is disinfected by spraying with a 0.1 ppm solution until all surfaces are thoroughly wet. Allow the domicile to dry until all chlorine odors have dissipated.

FOOD EGG SANITIZATION - Thoroughly clean all eggs. Thoroughly mix 2 fl. oz. of this product with 10 gallons of warm water to produce a 200 ppm available chlorine solution. The sanitizer temperature must not exceed 130°F. Spray the warm sanitizer so that the eggs are thoroughly wetted. Allow the eggs to thoroughly dry before casing or breaking, Do not apply a potable water rinse. The solution must not be reused to sanitize eggs.

FRUIT & VEGETABLE WASHING - All fruits and vegetables must be cleaned by thoroughly washing in an appropriate cleaning solution. Remove all soils and other residues prior to treating with this product. After washing, transfer the fruit and vegetables to a separate tank containing the solution.

Apply this product at the recommended concentration of available chlorine. See the following table for recommended usage concentrations for the fruit or vegetable being processed. To prepare a 100 ppm available chlorine solution, add 0.75 gallon of this product to 1,000 gallons of water. The use of a calcium carbonate buffer to control pH is recommended. Maintain the pH of the use solution between 6.0 and 8.0 with a dilute solution of hydrochloric acid.

For citrus quarantine, use at 200 ppm at pH 6.0 to 7.5. Apply for two minutes using a suitable spray or dip tank treatment.



DOSAGE IN FRUIT AND VEGETABLE TREATMENT

Available Chlorine Required in Treatment Water

Maintain the following temperatures: Tank/Flume: 60 - 70°F - Spray: 65 - 75°F - Hydrocooler: 34 - 40°F

Do not rinse treated commodities with water prior to packaging.

COMMODITY	TREATMENT METHOD	AVAILABLE CHLORINE TO APPLY (ppm)	COMMENTS
Apples	Dump Tank Flume Spray	100 - 150 30 - 50 100 - 150	For dump tank and flume, Submerge the apples for 90 seconds. For spray, maintain contact for 5 - 15-seconds.
Artichokes	Spray	100 - 150	Spray for 5 - 15 seconds.
Asparagus	Spray Hydrocooler	100 - 150 125 - 150	Spray for 5 - 15 seconds. Hydrocool for 20 - 30 minutes.
Brussels Sprouts	Spray	100 - 150	Spray for 5 - 15 seconds. After treatment, the adhering moisture must be removed by centrifuging.
Carrots	Dump Tank Flume Spray	100 - 200 100 - 200 50 - 100	Immerse in dump tank or flume for 1 - 5 minutes. Spray for 5 - 15 seconds.
Cauliflower	Spray	300 - 400	Spray for 5 - 15 seconds.
Celery	Spray	100	Spray for 5 - 15 seconds.
Cherries	Spray	75 - 100	Spray for 5 - 15 seconds.
Garlic	Spray Tank	75 - 100 75 -150	Spray for 5 - 15 seconds. Immerse in tank for 2 - 5 minutes contact.
Grapefruits	Spray Drench	40 – 75 100 -150	Spray for 5 - 15 seconds. Drench for 3 - 5 minutes. For citrus quarantine treatment, use 200 ppm of available chlorine at pH 6.0 - 7. 5 in drench tank.
Lemons	Dump Tank	30 -50	Immerse in dump tank for 2 - 3 minutes.
Melons (all varieties)	Hydrocooler Spray	30 – 75 100 -200	Hydrocool for 20 - 30 minutes. Spray for 5 - 15 seconds.
Mushrooms	Spray	100 -200	Spray for 5 - 15 seconds. After treatment with the chlorinated water, mushrooms must be treated with anti-oxidant to prevent browning.
Onion (dry)	Spray Tank	75 -150 75 -150	Spray for 5 - 15 seconds. Immerse in tank for 2 - 3 minutes.
Onions (green)	Spray	75 -120	Spray for 5 - 15 seconds.
Oranges	Drench Spray	100 -200 40-75	Drench for 3 - 5 minutes. Spray for 5 - 15 seconds.
Nectarines	Hydrocooler Spray	30-75 50 -100	Hydrocool for 20 - 30 minutes. Spray for 5 - 15 seconds.
Peaches	Hydrocooler Spray	30-75 50 -100	Hydrocool for 20 - 30 minutes. Spray for 5 - 15 seconds.
Pears	Dump Tank	200 - 300	Immerse in tank for 2 - 3 minutes.
Peppers (Not for use in CA)	Spray	300 -400	Spray for 5 - 15 seconds.
Pineapples (Not for use in CA)	Spray Drench Dump Tank	100-150 40 -100 30 - 100	Spray for 5 - 15 seconds. Drench for 3 -5 minutes. Remove from tank after 2-5 minutes. Potable water rinse is not required for pineapple.
Plums	Hydrocooler Spray	30-75 50 -100	Hydrocool for 20 - 30 minutes. Spray for 5 - 15 seconds.
Potatoes	Dump Tank Flume Spray	30 -100 200 - 300 100 - 200	Immerse in tank or flume for 2 - 5 minutes Spray for 5 - 30 seconds.
Potatoes (white)	Spray	500 - 600	This concentration of chlorine must be used only if bleaching of potatoes is desirable. Spray for 5 - 20 seconds.
Radishes	Tank Spray	10-25 100 -150	Immerse in tank for 1 – 12 seconds Spray for 5 - 15 seconds.
Spinach (Not for use in CA)	Spray	75 -150	Spray for 5 - 15 seconds.
Tomatoes	Tank Spray	200 - 350 100 -150	Immerse in tank for 2 - 3 minutes. Spray for 5 - 15 seconds.
Yams	Tank	100 -200	Immerse in tank for 2 - 3 minutes.

AQUACULTURAL USES

FISH PONDS - Remove fish from ponds prior to treatment. Thoroughly mix 103 fl. oz. of this product to 10,000 gallons of water to obtain 10 ppm available chlorine. Add more product to the water if the available chlorine level is below 1 ppm after 5 minutes. Return fish to pond after the available chlorine level reaches zero.

FISH POND EQUIPMENT - Thoroughly clean all equipment prior to treatment. Thoroughly mix 2 fl. oz. of this product to 10 gallons of water to obtain 200 ppm available chlorine. Porous equipment must soak for one hour.

MAINE LOBSTER PONDS - Remove lobsters, seaweed etc. from ponds prior to treatment. Drain the pond. Thoroughly mix 6200 fl. oz. of this product to 10,000 gallons of water to obtain at least 600 ppm available chlorine. Apply so that all barrows, gates, rock and dam are treated with product. Permit high tide to fill the pond and then close gates. Allow water to stand for 2 to 3 days until the available chlorine level reaches zero. Open gates and allow 2 tidal cycles to flush the pond before returning lobsters to pond.

CONDITIONING LIVE OYSTERS - (Not Approved for Use in California.) Thoroughly mix 5 fl. oz. of this product to 10,000 gallons of water at 50 to 70°F to obtain 0.5 ppm available chlorine. Expose oysters to this solution for at least 15 minutes, monitoring the available chlorine level so that it does not fall below 0.05 ppm. Repeat entire process if the available chlorine level drops below 0.05 ppm or the temperature falls below 50°F.

CONTROL OF SCAVENGERS IN FISH HATCHERY PONDS
Prepare a solution containing 200 ppm of available chlorine by mixing 2 fl. oz. of product with 10 gallons of water. Pour into drained pond potholes. Repeat if necessary. Do not put desirable fish back into refilled ponds until chlorine residual has dropped to 0 ppm, as determined by a test kit.

SANITIZATION OF DIALYSIS MACHINES

Flush equipment thoroughly with water prior to using this product. Thoroughly mix 6 fl. oz. of this product to 10 gallons of water to obtain at least 600 ppm available chlorine. Immediately use this product in the hemodialysate system allowing for a minimum contact time of 15 minutes at 20°C. Drain system of the sanitizing solution and thoroughly rinse with water. Discard and DO NOT reuse the spent sanitizer. Rinsate must be monitored with a suitable test kit to ensure that no available chlorine remains in the system.

This product is for decontaminating single and multi-patient hemodialysate systems. This product has been shown to be an effective disinfectant (fungicide, bactericide, pseudomonicide) when tested by AOAC and EPA test methods. This product may not totally eliminate all vegetative microorganisms in hemodialysate delivery systems due to their construction and/or assembly, but can be relied upon to reduce the number of microorganisms to acceptable levels when used as directed. This product must be used in a disinfectant program that includes bacteriological monitoring of the homo dialysate delivery system. This product is NOT recommended for use in hemodialysate or reverse osmosis (RO) membranes. Consult the guidelines for hemodialysate systems that are available from the Hepatitis Laboratories, CDC, Phoenix, AZ 85021.

ASPHALT OR PAINTED (SEALED) WOOD ROOFS AND SIDINGS

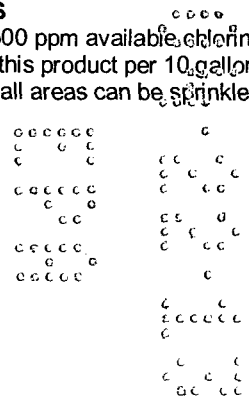
To control fungus and mildew, first remove all physical soil by brushing and hosing with clean water, and apply a 5000 ppm available chlorine solution. Mix 5 fl. oz. of this product per gallon of water and brush or spray roof or siding. After 30 minutes, rinse by hosing with clean water.

BOAT BOTTOMS

To control slime on boat bottoms, sling a plastic tarp under boat, retaining enough water to cover the fouled bottom area, but not allowing water to enter enclosed area. This envelope must contain approximately 500 gallons of water for a 14 foot boat. Add 18 fl. oz. of this product to this water to obtain a 35 ppm available chlorine concentration. Leave immersed for 8 to 12 hours. Repeat if necessary. Do not discharge the solution until the free chlorine level has dropped to 0 ppm, as determined by a swimming pool test kit.

ARTIFICIAL SAND BEACHES

To sanitize the sand, spray a 500 ppm available chlorine solution containing 5 fl. oz., of this product per 10 gallons of water at frequent intervals. Small areas can be sprinkled with a watering can.



DIRECTIONS FOR USE AS A MACROFOULANT CONTROL AGENT FOR INDUSTRIAL WATER SYSTEMS

Aquatic macro fouling organisms (i.e. Zebra Mussel *(Dreissena polymorpha)*, Quagga Mussels *(Dreissena bugensis)*, Blue Mussels *(Mytilus edulis)*, Asian Clam *(Corbicula fluminea)* can detect chemical changes in their environment and close their shells for a period of weeks. The closure period may last 3 - 5 weeks. This condition will remain until those changes are no longer detected, or the organisms die through lack of respiration. Chemical treatment times and concentrations may vary, because of the organism's biological ability of detection; the extent of the macrofoulant contamination; and the design variations of the system.

Single Exposure - To control macrofoulants, add 100-200 fl. oz. of this product per 10,000 gallons of water in the system to obtain a residual chlorine concentration of 10-20 ppm. For the best results treat during the breeding season and/or at the end of the season for at least 30 days. The release of zebra mussels for weeks after this method of treatment is not uncommon.

Semi-Continuous Exposure - To control macrofoulants, add 52-104 fl. oz. of this product per 10,000 gallons of water in the system, 15 to 30 minutes a day, to obtain a residual chlorine concentration of 5-10 ppm. For the best results, initiate treatment during the breeding season (June to September).

Continuous Exposure - To control macrofoulants, add 52-104 fl. oz. of this product per 10,000 gallons of water in the system to obtain a residual chlorine concentration of 5-10 ppm. For the best results, apply during the breeding season (June to September).

Treatment Method	Dosage 12.5% Sodium Hypochlorite
Single Dosage (10-20 ppm)	100-200 fl. oz. / 10,000 gallons
Semi-continuous (5-10 ppm)	52-104 fl. oz. / 10,000 gallons
Continuous (5-10 ppm)	52-104 fl. oz. / 10,000 gallons

Alternatively, make a 1.5 wt. % available chlorine (AvCl) solution by adding 135 fl. oz. of this solution per 10 gallons of water, and dose as follows:

Treatment Method	Dosage pump rate with 1.5 wt. % AvCl Solution
Single Dosage (10-20 ppm)	40-80 gph per 1,000 gpm of flowing water
Semi-continuous (5-10 ppm)	20-40 gph per 1,000 gpm of flowing water
Continuous (5-10 ppm)	20-40 gph per 1,000 gpm of flowing water

Note: The dosages above are approximate. Always test for available chlorine to ensure proper dosage rates are achieved. If treatment levels would exceed NPDES/SPDES permit limits, dechlorination must be performed prior to discharge of the treated effluent.

AGRICULTURAL USES

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirement for the protection of agricultural workers on farms, forests, nurseries, greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Workers Protection Standard.

The Restricted-Entry Interval (REI) is 0 days when using this product.

There are no posting or notification requirements when using this product.

Personal Protective Equipment must be worn as described under the "Precautionary Statements" section of this label.

DRIP IRRIGATION - This product is to be applied through drip/trickle sprinkler irrigation systems only for agricultural crops and only where this manner of use will not cause crop damage. The plugging of drip irrigation emitters is a universal problem that will cause a lack of water application uniformity. One of the primary causes of emitter plugging is the proliferation of bacteria and algae within the lines and emitters of a drip irrigation system. This product is an additive that controls both algae and bacterial growth resulting in a uniform distribution of water. The amount of this product required for injection into the irrigation water to supply a desired dosage in ppm can be calculated by the following equation:

I = (0.006) (ppm desired) (system flow rate in gallons per minute) / (bleach strength)

With a chlorine test kit, determine the residual chlorine at the emitter farthest from the injection pump. The residual chlorine must be between 1.0 ppm and 2.0 ppm with a water pH of 7.2 - 7.6.

NOTE: This calculation, when applied to clean water which is free of amine nitrogen and organic nutrients, will give a result close to the actual product injection rate required. In actual practice, however, contaminants in the water may consume the product such that the available chlorine concentration is less than expected from the calculation. To correctly establish the product dose setting required, it is necessary to measure the available chlorine at the end of the treated increment in the field and adjust the dose setting until the desired available chlorine concentration is obtained. Only experience can establish the actual injector settings required to provide the desired level of available chlorine at the end of the farthest lateral.

Injection must be started during irrigation, near the end of the irrigation sequence, but early enough to establish the desired available chlorine concentration throughout the system being treated. Apply the product upstream of the filter to help keep the filter clean. Allow sufficient time to achieve a steady reading.

If the irrigation water has high levels of nutrients causing bacterial, algae, or other bio-fouling that reduces system performance, continuous use of this product may be necessary. The recommended level of free residual chlorine for continuous feed is 1 to 2 ppm, measured at the end of the farthest lateral using a good quality test kit for free chlorine (also called "free residual" or "free available" chlorine).

Periodic shock treatments at a higher chlorine rate of up to 20 ppm free residual may be appropriate where bacteria and/or algae clogging and build-up are not managed by maintaining a continuous residual. The frequency of the shock application depends upon the frequency and extent of bio-clogging.

Bringing concentrations to as much as 100 ppm total available chlorine is recommended for reclaiming low-volume irrigation systems if clogged by algae and bacterial slimes. Deliver 100 ppm in the drip system and monitor the free chlorine residual at the end of the farthest lateral. As soon as it is established that the free residual reading is between 10 and 20 ppm, shut the system down and leave it undisturbed for up to 24 hours. Then flush all sub-mains and laterals with fresh water. Sodium Hypochlorite will not dissolve or remove scale or inorganic sediment fouling.

DO NOT apply when fertilizers, herbicides, and insecticides are being injected since they will consume the available chlorine and may produce toxic reaction products.

Shut down the feed as soon as the irrigation water is switched to the next irrigation sector. Leave the treated water residing in the section which has been shut down.

If its source water is connected to a potable water system, the irrigation water system must contain a functional reduced-pressure-principle back-flow prevention device approved by your state Department of Health, appropriately situated to prevent contamination of the potable water system. This device must be certified operational by an agent authorized for making certifications by the state Department of Health.

SENSITIVE PLANT SPECIES - Certain plants, including various species of trees, flowers, shrubs, agronomic crops, fruits and vegetables are adversely affected by chlorinated irrigation. The use of this product can impact the growth, appearance and health of the plants.

Begonias, geraniums and other ornamental plant species are known to be sensitive to continuous chlorination at levels of 1-2 ppm free chlorine. Plant species such as tomato, lettuce, broccoli, and petunia are sensitive to periodic chlorination levels of 10-20 ppm free chlorine.

If uncertain of a plant's tolerance, consult an agronomist or a support agency such as your local University Extension Service or your local agent of the US Department of Agriculture or use an alternate method to remove bio-fouling from the irrigation system.

CONTROLLING SEEDBORNE BAKANAE DISEASE OF RICE: To aid in surface sterilization of rice seed for prevention of bakanae disease Fusarium fujikuroi *[syn. F. moniliforme]* or Gibberella fujikuroi, mix 2.64 gallons of this product per 110 gallons of water to make a 3000 ppm available chlorine solution. Mix solution thoroughly, and then apply to seeds. Soak the seeds for two hours, then drain solution and replace with fresh water. Continue seed soaking and draining as usual. Do not apply undiluted product directly to seed.

Alternatively, make a 1500 ppm available chlorine solution by mixing 1.32 gallons of this product with 110 gallons of water. Mix solution thoroughly, and then apply to seeds. Soak and drain seed as usual. No rinsing is required. Do not apply undiluted product directly to seed.

Prepare a fresh solution for each batch of seed. Do not use treated seeds for food or feed.

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