

#### U.S. ENVIRONMENTAL PROTECTION AGENCY

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

101928-1

Date of Issuance:

7/11/23

Term of Issuance:

EPA Reg. Number:

Unconditional

Name of Pesticide Product:

CHEMCORP SUPER POOL SHOCK

Name and Address of Registrant (include ZIP Code):

John Burhans, Authorized Agent CHEMCORP 14931 NW 27<sup>th</sup> Avenue OPA-LOCKA, FL 33054

Electronic Transmittal: [Burhansconsulting@gmail.com]

NOTICE OF PESTICIDE:

X Registration

\_\_\_\_ Reregistration (under FIFRA, as amended)

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

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

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

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

- 1. Submit and/or cite all data required for registration/registration/registration review of your product when the Agency requires all registrants of similar products to submit such data.
- 2. The data requirements for storage stability and corrosion characteristics (Guidelines 830.6317 and 830.6320) are not satisfied. A one year study is required to satisfy these data requirements. You have 18 months from the date of registration to provide these data.

Signature of Approving Official:	
in 1	Date:
Demson Fuller	7/11/23
Product Manager 32	
Risk Management Branch I, Antimicrobials Division (7510P)	

EPA Form 8570-6

- 3. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 101928-1."
- 4. Submit one copy of the revised final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the Agency. See FIFRA section 2(p)(2). If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process, FIFRA section 12(a)(1)(B). Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Assurance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

• Basic CSF dated 01/24/2023

If you have any questions, please contact Wanda Henson by phone at (202) 566-0650, or via email at henson.wanda@epa.gov

Sincerely,

Demson Fuller, Product Manager 32 Regulatory Management Branch I Antimicrobials Division (7510P) Office of Pesticide Programs

Enclosure

# CHEMCORP SUPER POOL SHOCK

{Select Marketing Claims and Graphics from the "Marketing Claims" and "Graphics" sections below}

Calcium Hypochlorite (CAS No. 7778-54-3)	. 65%
Other Ingredients	35%
Total	100%

# Keep Out of Reach of Children DANGER

#### First Aid

**ACCEPTED** 07/11/2023

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under

EPA Reg. No. 101928-1

If in Eyes:	<ul> <li>X Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>X Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>X Call a poison control center or doctor for treatment advice.</li> </ul>
If on Skin or Clothing:	x x Take off contaminated clothing. Immediately rinse skin with plenty of water for 15-20 minutes.  x Call a poison control center or doctor for treatment advice.
If Swallowed:	<ul> <li>x Immediately call a poison control center or doctor for treatment advice.</li> <li>x Have person sip a glass of water if able to swallow.</li> <li>x Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>x Do not give anything by mouth to an unconscious person.</li> </ul>
If Inhaled:	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For general information on product use, etc. call the National Pesticides Information Center at 1-800-858-7378. For emergencies, call the poison control center at 1-800-222-1222.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

{Note: The first aid statements' grid format will be used if label space permits; otherwise a paragraph format will be used.}

See Booklet [back panel] for additional Precautionary Statements and complete
Directions for Use

Net Weight:	lbs (	(kg)

EPA Est. 101928-FL-1

Manufactured By:

**CHEMCORP** 

# 14931 NW 27<sup>TH</sup> AVE

OPA-LOCKA, FL 33054

{Affixed Booklet or Back Panel}

# PRECAUTIONARY STATEMENTS Hazards to Humans and Domestic Animals

**DANGER:** Corrosive. Causes irreversible eye damage and skin burns. Fatal if swallowed or absorbed through skin. Do not get in eyes, on skin or on clothing. Wear long-sleeved shirt, long pants, goggles or face shield and rubber gloves when handling this product. Irritating to nose and throat. Avoid breathing dust. Thoroughly wash with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

#### **Environmental Hazards**

{For product in containers less than 50 pounds:}

This product is toxic to fish and aquatic organisms.

{For product in containers of 50 pounds and greater:}

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

#### **Physical or Chemical Hazards**

**Strong Oxidizing Agent.** Mix only with water. Add product to water; **do not** add water to product. Use clean, dry utensils. Do not add this product to any dispensing device containing remnants of any other product; such use may cause a violent reaction leading to fire or explosion. Contamination with moisture, organic matter or other chemicals will start a chemical reaction and generate heat, chlorine gas and possible fire and explosion. In case of contamination or decomposition, do not reseal container. If possible, isolate container in open air or well ventilated area then flood area with large volumes of water if necessary.

#### **DIRECTIONS FOR USE**

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

# **Swimming Pool Water Disinfection**

**For a new pool or spring start-up,** superchlorinate with 10-20 oz of product for each 10,000 gallons of water to yield 5-10 ppm available chlorine by weight. Check the level of available chlorine with a test kit. Adjust and maintain pool water pH to between 7.2-7.6.

**To maintain the pool**, add manually or by a feeder device 2 oz of this product for each 10,000 gallons of water to yield an available chlorine residual between 0.6-1.0 ppm by weight. In stabilized pools maintain a residual of 1.0-1.5 ppm available chlorine. Frequently test the pH, available chlorine residual and alkalinity of the water 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 10-20 oz of product for each 10,000 gallons of water to yield 5-10 ppm available chlorine by weight. Check the level of available chlorine with a test kit. Do not reenter pool until the chlorine residual is between 1-3 ppm. Reentry into treated pools is prohibited above levels of 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 the pool within 24 hours prior to discharge.

**Winterizing Pools:** While water is still clear and clean, apply 0.6 oz of product per 1,000 gallons of water, while filter is running, to obtain a 3 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, Hubbard/Immersion Tanks and Hydrotherapy Tanks

**Spas/Hot Tubs:** Apply 0.5 oz of product per 500 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 7.2-7.8. Some oils, lotions, fragrances, cleaners, etc. may cause foaming or cloudy water as well as reduce the efficiency of the product. To maintain the water, apply 0.5 oz of product per 500 gallons of water over the surface to maintain a chlorine concentration of 5 ppm. Reentry into treated pools is prohibited above levels of 4 ppm due to risk of bodily harm. After each use, shock treat with 1.5 oz of this product per 500 gallons of water to control odor and algae. During extended periods of disuse, daily add 0.3 oz of product per 500 gallons of water to maintain a 3 ppm chlorine concentration.

**Hubbard and Immersion Tanks:** Add 0.5 oz of this product per 100 gallons of water before patient use to obtain a chlorine residual of 25 ppm as determined by a test kit. Adjust and maintain the water pH to between 7.2-7.6. After each use drain the tank. Add 0.5 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. Thoroughly clean tank and dry with clean cloths. Not for use in California. **Hydrotherapy Tanks:** Add 1 oz of this product per 1,000 gallons of water to obtain a chlorine residual of 1 ppm, as determined by a suitable chlorine test kit. Do not enter pool until the chlorine residual is below 3 ppm. Adjust and maintain the water pH to between 7.2-7.6. Continuously operate pool filter. Drain pool weekly and clean before refilling.

#### Mixing Chart

Use the following chart to determine the required amount of this product to be mixed with water to obtain the desired available chlorine ppm concentration. Thoroughly mix this product with water when preparing disinfecting and sanitizing solutions.

CHEMCORP SUPER POOL SHOCK (oz)	Water (gal)	Chlorine Concentration (approx. ppm)
0.1	1	500
1	1	5,000
8	1	39,000
1	5	1,000
0.2	10	100
0.3	10	150
0.4	10	200
0.5 (1 Tbsp.)	10	200
1	10	500
1.5	10	600
11	10	1,000
1	20	200
3	20	600
1	40	100
7	60	500
0.3	100	15
0.5	100	25

Mixing Chart (continued)

CHEMCORP SUPER POOL SHOCK (oz)	Water (gal)	Chlorine Concentration (approx. ppm)
1	100	50
2	100	100
20	100	1,000
100	100	5,000
1/4 tsp.	200	0.1
1 tsp.	200	1
1	200	25
0.5	500	5
1	500	10
1.5	500	3
3.5	500	35
0.6	1,000	3

1	1,000	1
2	1,000	10
5	1,000	5
1	10,000	0.5
2	10,000	1
10	10,000	5
20	10,000	10
1,200 (75 lbs.)	10,000	600

**Sanitization of Nonporous Food Contact Surfaces** 

Rinse Method: Use a 100 ppm available chlorine solution 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 periodically adjusted to ensure that the available chlorine does not drop below 50 ppm. If no test kit is available, prepare a 200 ppm available chlorine sanitizing solution. Clean equipment surfaces in the normal manner. Prior to use, thoroughly rinse all surfaces 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 available chlorine 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: Use a 100 ppm available chlorine solution 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 periodically adjusted to ensure that the available chlorine does not drop below 50 ppm. If no test kit is available, prepare a 200 ppm available chlorine sanitizing solution. 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 available chlorine 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:** Prepare a volume of a 200 ppm available chlorine sanitizing solution equal to 110% of volume capacity of the equipment. 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. Disassemble equipment and thoroughly clean; then assemble equipment in operating position post-treatment and prior to use.

Clean-In-Place Method: Prepare a volume of a 200 ppm available chlorine sanitizing solution equal to 110% of volume capacity of the equipment. 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. Thoroughly clean equipment post-treatment and prior to use.

**Spray Method:** Preclean all surfaces. Use a 200 ppm available chlorine solution to control bacteria, mold or fungi and a 600 ppm solution to control bacteriophage. Use spray equipment that can resist hypochlorite solutions. Thoroughly spray 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. Always empty and rinse spray equipment with potable water after use.

#### **Sanitization of Porous Food Contact Surfaces**

**Rinse Method:** Prepare a 600 ppm available chlorine sanitizing solution. Clean surfaces in the normal manner. Thoroughly rinse all surfaces with the 600 ppm solution, maintaining contact for at least 2 minutes. Prepare a 200 ppm available chlorine sanitizing solution. Prior to using equipment, rinse all surfaces with a 200 ppm available chlorine solution. Do not rinse equipment with water after treatment and do not soak equipment overnight.

**Immersion Method:** Prepare a 600 ppm available chlorine sanitizing solution in an immersion tank. Clean equipment in the normal manner. Immerse equipment in the 600 ppm solution for at least 2 minutes. Prepare a 200 ppm sanitizing solution in an immersion tank. Prior to using equipment, immerse all surfaces in the 200 ppm available chlorine solution. Do not rinse equipment with water after treatment and do not soak equipment overnight.

**Spray Method:** Preclean all surfaces. Prepare a 600 ppm available chlorine sanitizing solution of sufficient size. Use spray equipment that can resist hypochlorite solutions. Thoroughly spray 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. Always empty and rinse spray equipment with potable water after use.

#### **Sanitization of Nonporous Nonfood Contact Surfaces**

**Rinse Method:** Prepare a 200 ppm available chlorine sanitizing solution. Clean equipment surfaces in the normal manner. Prior to use, thoroughly rinse all surfaces 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 200 ppm available chlorine sanitizing solution. 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 and do not soak equipment overnight.

**Spray Method:** Preclean all surfaces. Prepare a 200 ppm available chlorine sanitizing solution of sufficient size. Use spray equipment that can resist hypochlorite solutions. Prior to using equipment, thoroughly spray all surfaces until wet, allowing excess sanitizer to drain. Vacate area for at least 2 hours.

# **Disinfection of Nonporous Nonfood Contact Surfaces**

**Rinse Method:** Clean equipment surfaces in the normal manner. Prepare a 600 ppm available chlorine disinfecting solution. Prior to use, thoroughly rinse all surfaces 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:** Clean equipment in the normal manner. Prepare a 600 ppm available chlorine disinfecting solution in an immersion tank. Prior to use, immerse equipment in the disinfecting solution for at least 10 minutes and allow the solution to drain. Do not rinse equipment with water after treatment.

#### Sanitization of Porous Nonfood Contact Surfaces

**Rinse Method:** Clean surfaces in the normal manner. Prepare a 600 ppm available chlorine sanitizing solution. Prior to use, thoroughly rinse all surfaces 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:** Clean equipment in the normal manner. Prepare a 600 ppm available chlorine sanitizing solution in an immersion tank. 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 Method:** After cleaning, sanitize surfaces with a 600 ppm available chlorine solution. Use spray equipment that can resist hypochlorite solutions. Prior to using equipment, thoroughly spray all surfaces until wet, allowing excess sanitizer to drain. Vacate area for at least 2 hours. Always empty and rinse spray equipment with potable water post-treatment.

### **Food Processing**

For use in Federally-inspected meat and poultry plants.

Chlorine potable water treatment compounds: Chlorine may be present in processing water of meat and poultry plants at concentrations up to 5 ppm calculated as available chlorine. Chlorine may be present in poultry chiller intake water and in carcass wash water at concentrations up to 50 ppm calculated as available chlorine. Chlorine must be dispensed at a constant and uniform level and the method/system must be such that a controlled rate is maintained. Cooling and retort water treatment compounds: Chemical agents may be added to water used to cook and cool meat and poultry products' containers to prevent staining of containers and to control corrosion/deposit formation on surfaces of processing equipment. The amount used must be the minimum sufficient for the purpose. Calcium hypochlorite solutions providing 1% available chlorine must be fed into tanks or channels by an elevated tank to provide a 2ppm available chlorine concentration. The flow must be controlled with a noncorroding valve or a pinchstop on a rubber hose. Feed points must be located to provide uniform distribution of solution throughout the entire system. Long and narrow tanks may require the solution to be fed at 2 points to ensure proper distribution. Test the water for available chlorine; if a residue of 2 ppm is present throughout the system, the water is properly sanitized. Test for available chlorine every hour until dosage requirements are established. Thereafter, check every 2-3 hours to verify that a 2 ppm available chlorine residual is maintained throughout the system.

[Compounds for treating boilers, steam lines and/or cooling systems where neither the treated water nor the steam produced may contact edible products: This does not include compounds added to water used to cook and cool meat and poultry products' containers. A clogged or fouled system must be mechanically cleaned to remove all physical soil prior to beginning treatment. Initially, treat by adding enough calcium hypochlorite to provide 10 ppm available chlorine as a shock dosage and circulate it thoroughly through the system. Then, for continuous preventative algae and slime growth control, regularly add enough calcium hypochlorite to the recirculation system to maintain a 1 ppm free chlorine residual. Other water condition factors, such as pH, must be controlled as recommended by the equipment manufacturer.]

#### **Sewage and 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, if the chlorinated effluent has been reduced to or below the maximum permitted by the

controlling regulatory jurisdiction. On the average, satisfactory disinfection of secondary wastewater 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 wastewater disinfection:

- 1. Mixing: It is imperative that the product and the wastewater be instantaneously and completely flash mixed to assure reaction with every chemically-active soluble and particulate component of the wastewater.
- 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 0.2-1.0 ppm chlorine residual after a 15-30 minutes contact time. A reasonable average of residual chlorine is 0.5 ppm after 15 minutes contact time.

#### **Sewage and Wastewater Treatment**

**Effluent Slime Control:** Apply a 100-1000 ppm available chlorine solution at a location that will allow complete mixing. Once control is evident, apply a 15 ppm available chlorine solution.

**Filter Beds – Slime Control:** Remove filter from service, drain to a depth of 1 foot above filter sand and add 16 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 4-6 hours before completely draining and backwashing filter.

#### **Drinking Water Disinfection**

(Except in New York State)

**Public Systems:** Prepare a 10 ppm available chlorine disinfecting solution. Begin feeding this solution with a hypochlorinator until a free available chlorine residual of at least 0.2 ppm and no more than 0.6 ppm is attained throughout the distribution system. Frequently check water 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 Water Systems – Dug Wells: Upon completion of the casing (lining) wash the interior of the casing with a 100 ppm available chlorine solution using a stiff brush. After covering the well, pour the solution into the well through both the pipe sleeve opening and the pipeline. Also wash the exterior of the pump cylinder with the solution. Start pump and pump water until a strong chlorine odor in the water is noted. Stop pump and wait at least 24 hours. After 24 hours flush the well until all traces of chlorine have been removed from the water. Consult your local Health Department for further details.

Individual Water Systems – Drilled, Driven and Bored Wells: Run pump until water is as free from turbidity as possible. Pour a 100 ppm available chlorine solution into the well. Add 5-10 gallons of clean, chlorinated water to the well to force the solution into the rock formation. Also wash the exterior of the pump cylinder with the solution. Drop a pipeline into the well, start the pump and pump water until a strong odor of chlorine in the water is noted. Stop pump and wait at least 24 hours. After 24 hours flush the 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, disinfect the well. Consult your local Health Department for details.

**Emergency Disinfection:** When boiling water for 1 minute is not practical, water can be made potable by using this product. **Prior** to addition of the disinfectant, 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 grain of this product to 1 gallon of water. One grain is approximately the size of the letter "o" in this sentence. 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 several times between clean containers.

### **Public Water Systems**

(Except in New York State)

**Reservoirs – Algae Control:** Hypochlorinate streams feeding the reservoir. Select suitable feeding points 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 hypochlorinator. 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, flush the system free of all heavily chlorinated water.

**New Tanks**, **Basins**, **Etc.**: Remove all physical soil from surfaces. Place 4 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 surface.

**New Filter Sand:** Apply 16 oz of this product for each 150-200 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. After thorough mixing under agitation, pump or gravity feed the solution into the well. Allow the well to 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 and thoroughly clean surfaces of all physical soil. Sanitize by placing 4 oz of this product for each 5 cubic feet of capacity (approximately 500 ppm available chlorine). Fill to working capacity and let stand at least 4 hours. Drain and place in service. If this treatment method is not practical, surfaces may be sprayed with a 1000 ppm available chlorine solution. After drying, flush with water and return to service.

# **Emergency Disinfection after Floods**

(Except in New York State)

**Wells:** Thoroughly flush contaminated casing with a 500 ppm available chlorine solution. 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 a 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 hypochlorinating stations upstream of the reservoir. Chlorinate the inlet water until the entire reservoir obtains a 0.2 ppm available chlorine residual, as determined by a chlorine test kit. In case of contamination from surface drainage, apply sufficient product directly to the reservoir to obtain a 0.2 ppm available chlorine residual in all parts of the reservoir.

**Basins, Tanks, Flumes, Etc.:** Thoroughly clean all equipment, then apply 4 oz of product per 5 cubic feet of water to obtain 500 ppm available chlorine, as determined by a chlorine test kit. After 24 hours drain, flush and return to service. If the this treatment method is not suitable, spray or flush the equipment with a 1000 ppm available chlorine solution. Allow to stand for 2-4 hours, flush and return to service.

**Filters:** When the sand filter needs replacement, apply 16 oz of this product for each 150-200 cubic feet of sand. When the filter is severely contaminated, distribute additional product over the surface at the rate of 16 oz per 20 square feet. Allow water to stand at a depth of 1 foot above the surface of the filter bed for 4-24 hours. When filter beds can be backwashed of mud and silt, apply 16 oz of this product per each 50 square feet, 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 4-6 hours drain, and proceed with normal backwashing.

**Distribution System:** Flush repaired or replaced section with water. Establish a hypochlorinating 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**

(Except in New York State)

**Cross Connections or Emergency Connections:** Set up hypochlorination or gravity feed equipment near the intake of the untreated water supply. Apply sufficient product to give a chlorine residual of at least 0.1-0.2 ppm at the point where the untreated supply enters the regular distribution system. Use a chlorine test kit.

# **Emergency Disinfection after Droughts**

(Except in New York State)

**Supplementary Water Supplies:** Set up gravity or mechanical hypochlorite feeders 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 contact time. While filling the containers, dose with sufficient amounts of this product to provide at least a 0.2 ppm available chlorine residual. Use a chlorine test kit.

# **Emergency Disinfection after Main Breaks**

(Except in New York State)

**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 hypochlorinator. Stop water flow when an available 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, flush the system free of all heavily chlorinated water.

# **Cooling Tower/Evaporative Condenser Water**

(Except in New York State)

**Slug Feed Method – Initial Dose:** When system is noticeably fouled, apply 10-20 oz of this product per 10,000 gallons of water in the system (5-10 ppm available chlorine). Repeat until control is achieved. Badly fouled systems must be cleaned before treatment is begun. **Subsequent Dose:** When microbial control is evident, add daily or as needed, 2 oz of this product per 10,000 gallons of water in the system to maintain control and keep the chlorine residual at 1 ppm.

**Intermittent Feed Method – Initial Dose:** When system is noticeably fouled, apply 10-20 oz of this product per 10,000 gallons of water in the system (5-10 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 blowdown. Badly fouled systems must be cleaned before treatment is begun. **Subsequent Dose:** When microbial control is evident, add 25 fl oz of this product per 10,000 gallons of water in the system (1 ppm residual). Apply half (or 1/3, 1/4 or 1/5) of this dose when half (or 1/3, 1/4 or 1/5) of the water in the system has been lost by blowdown.

**Continuous Feed Method – Initial Dose:** When system is noticeably fouled, apply 10-20 oz of this product per 10,000 gallons of water in the system (5-10 ppm available chlorine). Badly fouled systems must be cleaned before treatment is begun. **Subsequent Dose:** Maintain this treatment level by starting a continuous feed of 1 oz of this product per 1,000 gallons of water lost by blowdown to maintain a 1 ppm residual.

**Briquettes or Tablets:** Initially slug dose the system with 10 oz of this product per 10,000 gallons of water in the system. Badly fouled systems must be cleaned before treatment is begun. **Subsequent Dose:** When microbial control is evident, add daily or as needed, 2 oz of this product per 10,000 gallons of water in the system to maintain control and keep the chlorine residual at 1 ppm.

#### Laundry Sanitizers Household Laundry Sanitizers

**In Soaking Suds:** Thoroughly mix 0.5 oz (1 Tbsp.) of this product with 10 gallons of wash water (200 ppm available chlorine). Wait 5 minutes, then add soap or detergent. Immerse laundry for at least 11 minutes prior to starting the wash/rinse cycle.

**In Washing Suds:** Thoroughly mix 0.5 oz (1 Tbsp.) of this product with 10 gallons of wash water containing clothes (200 ppm available chlorine). Wait 5 minutes, then add soap or detergent and start the wash/rinse cycle. **Commercial Laundry Sanitizers** 

Spin dry wet fabrics or clothes prior to sanitization. Thoroughly mix 0.5 oz (1 Tbsp.) of this product with 10 gallons of water (200 ppm available chlorine). Promptly after mixing the sanitizer, add the solution into the prewash 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 1,000 ppm available chlorine for a period of 10 minutes. 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 or poultry or employ equipment until chlorine has 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 10-20 oz of this product per 10,000 gallons of water in the system (5-10 ppm available chlorine). Repeat until control is achieved. Badly fouled systems must be cleaned before treatment is begun. **Subsequent Dose:** When microbial control is evident, add daily or as needed, 2 oz of this product per 10,000 gallons of water in the system to maintain control and keep the chlorine residual at 1 ppm.

**Intermittent Feed Method – Initial Dose:** When system is noticeably fouled, apply 10-20 oz of this product per 10,000 gallons of water in the system (5-10 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 blowdown. Badly fouled systems must be cleaned before treatment is begun. **Subsequent Dose:** When microbial control is evident, add 2 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 dose when half (or 1/3, 1/4 or 1/5) of the water in the system has been lost by blowdown.

**Continuous Feed Method – Initial Dose:** When system is noticeably fouled, apply 10-20 oz of this product per 10,000 gallons of water in the system (5-10 ppm available chlorine). Badly fouled systems must be cleaned before treatment is begun. **Subsequent Dose:** Maintain this treatment level by starting a continuous feed of 2 oz of this product per 1,000 gallons of water lost by blowdown to maintain a 1 ppm residual.

**Briquettes or Tablets:** Initially slug dose the system with 10 oz of this product per 10,000 gallons of water in the system. Badly fouled systems must be cleaned before treatment is begun. **Subsequent Dose:** When microbial control is evident, add daily or as needed, 2 oz of this product per 10,000 gallons of water in the system to maintain control and keep the 1 ppm chlorine residual.

# **Agricultural Uses**

**Disinfect leafcutting bee cells and bee boards** by immersion in a 1 ppm available chlorine solution for 3 minutes. Allow cells to drain for 2 minutes and dry for 4-5 hours or until no chlorine odor can be detected. Disinfect bee domicile by spraying with a 0.1 ppm solution until all surfaces are thoroughly wet. Allow the domicile to dry until all chlorine odor has dissipated.

**Food egg sanitization:** Thoroughly clean all eggs. Spray the eggs until thoroughly wet with a warm (not greater than 130°F) 200 ppm available chlorine solution. Allow the eggs to completely dry before casing or breaking. Do not apply a potable water rinse. Do not reuse this solution.

**Fruit and vegetable washing:** Thoroughly clean all fruits and vegetables in a wash tank. Prepare a sanitizing solution of 25 ppm available chlorine. After draining the tank, submerge fruit or vegetables for 2 minutes in a second wash tank containing the recirculating sanitizing solution. Spray rinse vegetables with the sanitizing solution prior to packaging.

**Mushrooms:** To control bacterial blotch (*Pseudomonas tolassii*) use a 100-200 ppm solution prior to watering mushroom production surfaces. Begin first application when pins form and treat thereafter between breaks on an as needed basis depending upon the occurrence of bacterial blotch. This solution, applied at 1.5-2.0 oz/sq. ft. of growing space, may be applied directly to pins to control small infection foci.

**Post-harvest roots:** To control and reduce the spread of soft rot-causing organisms in water and on sweet potatoes (*Ipomoea batatas*), spray or dip the potatoes with a 150-500 ppm solution for 2-5 minutes. Monitor the chlorine concentration and change the solution after 1 hour or as needed. **Potatoes post-harvest protection:** Sanitize potatoes after cleaning and prior to storage by spraying a 500 ppm available chlorine solution at the rate of 1 gallon solution per ton of potatoes. **Seeds:** To control bacterial spot (*Xanthomonas vesticatoris*) on pimento seeds, initially remove moist seeds from ripe fruits. To control surface fungi and bacteria on tomato seeds, initially wash seeds. Immediately soak seeds in a 39,000 ppm solution (8 oz of this product in 1 gallon of water) for 15 minutes with continuous agitation. Rinse seeds in potable water for 15 minutes after treatment then dry seeds to normal moisture.

### **Aquacultural Uses**

**Control of scavengers in fish hatchery ponds:** Prepare a 200 ppm available chlorine solution. Pour solution into drained pond potholes. Repeat if necessary. Do not put desirable fish back into refilled ponds until chlorine residual has dropped to zero.

**Fish ponds:** Remove fish from ponds prior to treatment. Thoroughly mix 20 oz of this product with 10,000 gallons of water (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 the pond **after** the available chlorine level reaches zero.

**Fish pond equipment:** Thoroughly clean all equipment prior to treatment. Soak porous equipment for one hour in a 200 ppm available chlorine solution.

**Maine lobster ponds:** Remove lobsters, seaweed, etc. from ponds prior to treatment. Drain the pond. Apply a 600 ppm available chlorine solution and ensure that all barrows, gates, rock and dam areas are treated with product. Permit high tide to fill the pond and then close gates. Allow water to stand for 2-3 days until the available chlorine level reaches zero. Open gates and allow 2 tidal cycles to flush the pond before returning lobsters to the pond.

**Conditioning live oysters:** Prepare a 0.5 ppm available chlorine solution using 50°-70°F water. Expose oysters to this solution for at least 15 minutes, monitoring the available chlorine level to ensure 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.

#### **Sanitization of Dialysis Machines**

Thoroughly flush equipment with water prior to using this product. Prepare a solution containing at least 600 ppm available chlorine. Immediately use this solution in the hemodialysis system allowing for a minimum contact time of 15 minutes at 68°F (20°C). Drain solution from system and thoroughly rinse with water. Discard and **do not** reuse the spent sanitizer. Rinsate must be monitored with a chlorine test kit to ensure that no available chlorine remains in the system. This product is recommended for decontaminating single- and multi-patient hemodialysis systems. This product has been shown to be an effective disinfectant (virucide, fungicide, bactericide and pseudomonicide) when tested by AOAC and EPA test methods. This product may not totally eliminate all vegetative microorganisms in hemodialysis 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. Use this product in a disinfectant program that includes bacteriological monitoring of the hemodialysis delivery system. This product is **not** recommended for use in hemodialysis or reverse osmosis ("RO") membranes. Consult the guidelines for hemodialysis systems that are available from the CDC.

This product is not to be used as a terminal sterilant/high level disinfectant on any surface or instrument that (1) is introduced directly into the human body, either into or in contact with the bloodstream or normally sterile areas of the body; or (2) contact intact mucous membranes but which does not ordinarily penetrate the blood barrier or otherwise enter normally sterile areas of the body. This product may be used to preclean or decontaminate critical or semicritical medical devices prior to sterilization or high level disinfection.

# **Food Processing Plants**

**Poultry drinking water:** Spray or flush with a solution containing 1 oz of this product for every gallon of water. Treat poultry drinking water with a dosage of 1-5 ppm available chlorine.

**Fish filleting:** Place eviscerated and degilled fish removed from the fishing vessel in a wash tank of sea or fresh water that has been treated with enough product to produce a chlorine residual of 25 ppm as determined by a test kit. Remove fish from treated water 24-48 hours before filleting. After scaling and to prepare for filleting, wash the fish again in a 25 ppm solution.

**Pecan cracking and dyeing:** Soak pecans for a minimum of 10 minutes in a 1,000 ppm available chlorine solution. Age pecans for 24 hours after removal. Before bleaching, place pecans in a rotary cleaner and wash and drain; then soak in a 2% sulfuric acid bath at 80°-90°F for 1 minute. Transfer pecans to a solution containing 100 oz of this product for each 100 gallons of water (5,000 ppm). After 4-8 minutes, drain and wash in a 1% sulfuric acid bath 80°90°F, then dry.

# 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.

Notice: This product may be applied only by the methods specified on the labeling.

{For product in household/residential-use containers (nonrefillable container):}

# Storage and Disposal

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

**Pesticide Storage:** Keep this product dry in a tightly closed container when not in use. Store in a cool, dry, well-ventilated area away from heat or open flame. In case of decomposition, isolate container if possible and flood area with large amounts of water to dissolve all material before container disposal. **Container Disposal:** Nonrefillable container; do not reuse or refill this container. **If empty:** Place in trash or offer for recycling if available. **If partly filled:** Call your local solid waste agency for disposal instructions. Never place undiluted unused product down any indoor or outdoor drain.

{For product not in household/residential-use containers (refillable container):}

# Storage and Disposal

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

**Pesticide Storage:** Keep this product dry in a tightly closed container when not in use. Store in a cool, dry, wellventilated area away from heat or open flame. In case of decomposition, isolate container if possible and flood area with large amounts of water to dissolve all material before container disposal. **Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. 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:** Refillable container. Refill this container with only calcium hypochlorite. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the 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 mix tank. Fill the container about 10 percent full with 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 procedure two more times.

(For product not in household/residential-use containers greater than 5 gallons (nonrefillable container):)

# Storage and Disposal

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

Pesticide Storage: Keep this product dry in a tightly closed container when not in use. Store in a cool, dry, wellventilated area away from heat or open flame. In case of decomposition, isolate container if possible and flood area with large amounts of water to dissolve all material before container disposal. Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. 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: Nonrefillable container; do not reuse or refill this container. Offer for recycling, if available. Triple rinse (or equivalent) container 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 it send 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 product not in household/residential-use containers less than or equal to 5 gallons (nonrefillable container):}

# Storage and Disposal

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

**Pesticide Storage:** Keep this product dry in a tightly closed container when not in use. Store in a cool, dry, well-ventilated area away from heat or open flame. In case of decomposition, isolate container if possible and flood area with large amounts of water to dissolve all material before container disposal. **Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. **Container Disposal:** Nonrefillable container; do not reuse or refill this container. Offer for recycling, if available. Triple rinse (or equivalent) container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 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.

{Per PR Notice 2007-4 the batch code/lot number will appear on the label or container.}