

1258-1173

06/27/2012

1/22



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

JUN 27 2012

OFFICE OF  
CHEMICAL SAFETY AND  
POLLUTION PREVENTION

Joanna Holcombe, Regulatory Specialist  
Arch Chemicals, Inc  
5660 New Northside Drive NW  
Suite 1100  
Atlanta, GA 30328

Subject HTH 75 Superchlorinator Shock  
EPA Registration Number 1258-1173  
Notification Date May 31, 2012  
Notification Pin Punch June 4, 2012

Dear Ms Holcombe

This acknowledges receipt of your Notification submitted in accordance with the provisions of PR Notice 98-10 under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) section 3(c) 9

**Proposed Notifications**

- Addition of optional Spanish translation of signal word
- Option to move the First Aid and Precautionary Statements from Front Panel with accompanying instructional referrals to their location as needed Justification provided
- Addition of optional Spanish translation of If you do not understand the label find someone to explain it to you in detail directly above the Directions for Use
- Addition of bracketed instructional information for label reviewer of DRAFT labels


**General Comments**

Based on a review of the material submitted the Notification is acceptable

Should you have any questions or comments concerning this letter please contact Tom Luminello at (703) 308-8075 or Luminello Tom@EPA GOV

Sincerely,

*for Tom Luminello*  
Monisha Harris  
Product Manager 32  
Regulatory Management Branch II  
Antimicrobials Division (7510P)

 <b>Environmental Protection Agency</b> Washington DC 20460	<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other	OPP Identifier Number
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**Application for Pesticide Section I**

1 Company/Product Number <b>1258 1173</b>	2 EPA Product Manager <b>Monisha Harris</b>	3 Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4 Company/Product (Name) <b>HTH 75 Superchlorinator Shock</b>	PM# <b>32</b>	
5 Name and Address of Applicant (Include ZIP Code) Arch Chemicals Inc 5660 New Northside Drive NW Suite 1100 Atlanta GA 30328  <input type="checkbox"/> Check if this is a new address		6 <b>Expedited Review</b> In accordance with FIFRA Section 3(c)(3)(b)(I) my product is similar or identical in composition and labeling to  EPA Reg No _____ Product Name _____

**Section - II**

<input type="checkbox"/> Amendment Explain below	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> Me Too Application
<input checked="" type="checkbox"/> Notification Explain below	<input type="checkbox"/> Other Explain below

**Explanation** Use additional page(s) if necessary (For Section I and Section II)

**\*Not Subject to PRIA\***

**Label Notification to move the First Aid and Precautionary Statements etc See cover letter for details**

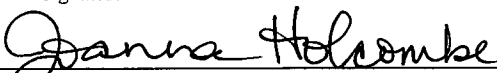
This notification is consistent with the provisions of PR Notice 98 10 and EPA regulations at 40 CFR 152 46 and no other changes have been made to the labeling or the confidential statement of formula of this product I understand that it is a violation of 18 U S C Sec 1001 to willfully make any false statement to EPA I further understand that if this notification is not consistent with the terms of PR Notice 98 10 and 40 CFR 152 46 this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA

Signature Joanna Holcombe Date 5-31-12

**Section - III**

1 Material This Product Will Be Packaged In				2 Type of Container	
Child Resistant Packaging <input checked="" type="checkbox"/> Yes* <input type="checkbox"/> No <i>*Certification must be submitted</i>	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes                      No per Unit Packaging wgt        container	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes                      No per Package wgt                container	<input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify)		
3 Location of Net Contents Information <input type="checkbox"/> Label <input checked="" type="checkbox"/> Container		4 Size(s) Retail Container  <b>Various</b>		5 Location of Label Directions <input checked="" type="checkbox"/> On Label <input checked="" type="checkbox"/> On labeling accompanying product	
6 Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Other _____ <input checked="" type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled					

**Section - IV**

1 Contact Point (Complete items directly below for identification of individual to be contacted if necessary to process this application)		
Name <b>Joanna Holcombe</b>	Title <b>Sr Commercial Regulatory Services Associate</b>	Tel phone No (Include Area Code) <b>578 627 2336</b>
Certification I certify that the statements I have made on this form and all attachments thereto are true accurate and complete I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law		6 Date Application Received  (Stamped)
2 Signature 		
4 Typed Name <b>Joanna Holcombe</b>	3 Title <b>Sr Commercial Regulatory Services Associate</b>  5 Date <b>5-31-12</b>	



Via FedEx

Arch Chemicals Inc  
5660 New Northside Drive NW Suite 1100  
Atlanta GA 30328 USA

Ms Monisha Harris PM 32  
Document Processing Desk (NOTIF)  
Office of Pesticide Programs (7504P)  
US Environmental Protection Agency  
Room S 4900 One Potomac Yard  
2227 S Crystal Drive  
Arlington VA 22202

Joanna Holcombe  
Lonza Microbial Control  
Commercial Regulatory Services

Tel 678 627 2336  
Fax 678 627 2081  
joanna.holcombe@lonza.com

May 31 2012

**SUBJECT HTH 75 Superchlorinator Shock EPA Reg No 1258 1173  
Label Notification**

Dear Ms Harris

Arch Chemicals Inc is now a part of Lonza On behalf of Arch Chemicals I am submitting an application to make the following changes to the abovementioned product label

Page 1	<ul style="list-style-type: none"> <li>• Add the words Note to reviewer to the box explaining the use of brackets and braces</li> <li>• Add optional Spanish signal word</li> <li>• Move First Aid and Precautionary Statements to page 2 and add a Note to reviewer and the following referral statement <i>See [left] [right] [back] [side] panel for Precautionary and First Aid Statements</i> Other EPA registered swimming pool products such as 5185 144 (BioGuard Master Trichloro Compacted) and 5185 501 (BioGuard Silk) are allowed to put the referral statement on the front</li> </ul>
Page 5	<ul style="list-style-type: none"> <li>• Add optional Spanish statement and English translation with accompanying Note to reviewer above Directions for Use <i>{If the following Spanish statement is used it must appear directly above DIRECTIONS FOR USE }</i> <i>Si usted no entiende la etiqueta busque a alguien para que se la explique a usted en detalle (If you do not understand the label find someone to explain it to you in detail )</i></li> </ul>

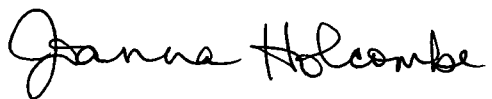
Please find the enclosed documents in support of this notification

- Application for Notification
- Certification with Respect to Label Integrity
- CD with label and
- One copy of the proposed label with changes highlighted

If you have any questions or need any additional information please feel free to contact me at 678 627 2336

2/2 May 31 2012 HTH 75 Superchlorinator Shock EPA Reg No 1258 1173 Label Notification

Sincerely  
Lonza Inc

A handwritten signature in black ink that reads "Joanna Holcombe". The signature is written in a cursive, flowing style.

Joanna Holcombe  
Sr Commercial Regulatory Services Associate

Note to reviewer  
[Items in brackets [AAA] are optional and may/may not be included on final label]  
{Items in braces {AAA} are for information purposes and will not appear on final label}

# HTH<sup>®</sup> 75 SUPERCHLORINATOR SHOCK

ACTIVE INGREDIENT Calcium hypochlorite 78%  
OTHER INGREDIENTS 22%  
TOTAL 100%

MINIMUM AVAILABLE CHLORINE 75%

KEEP OUT OF REACH OF CHILDREN

## DANGER [PELIGRO]

**Contamination or improper use may cause intense fire explosion or the release of toxic gases** Do not allow product to contact any foreign matter including other water treatment products **If product is exposed to small amounts of water it can react violently to produce heat and toxic gases and spatter** Do not add water to this product **Add only into water** {The following optional statement is for use on residential use swimming pool and spa products } **Do not mix this product with a small amount of water Only add directly to your pool** **Highly corrosive Causes skin and eye damage May be fatal if swallowed**

**Read all precautionary statements [on back panel] [on side panel] and first aid statements before use**

*{Note to reviewer Although this product has a Danger' signal word as per the EPA label review manual The Agency may permit reasonable variations in the placement of the First Aid statement as long as the reference statement See First Aid (or Statement of Practical Treatment) on (identify appropriate panel) appears on the front panel If the First Aid Statements are placed on the front panel of the final graphic label the statement below will not be used }*  
See [left] [right] [back] [side] panel for Precautionary and First Aid Statements

EPA Reg No 1258 1173  
EPA Est No Xxx—yy zz  
Net Wt xxx

Arch Chemicals Inc  
P O Box 724438  
Atlanta GA 31139 1438

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**DANGER Highly corrosive Causes skin and eye damage May be fatal if swallowed Irritating to nose and throat**

- Do not get in eyes on skin or clothing Do not handle with bare hands Wear safety goggles or face shield and rubber gloves when handling this product For additional skin protection wear long sleeves and long pants
- Wash thoroughly with soap and water after handling and before eating drinking chewing gum using tobacco or using the toilet
- Open in a well ventilated area Do not breathe dust or fumes
- Remove and wash contaminated clothing before reuse

**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 a 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 mouth to mouth if possible Call a poison control center or doctor for further treatment advice

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

**IN CASE OF EMERGENCY CALL 1 800 654 6911**

**PHYSICAL and CHEMICAL HAZARDS**

**If product is exposed to small amounts of water it can react violently to produce heat and toxic gases and spatter Do not add water to this product Add only into water**

- Do not allow to become wet or damp before use
- [Do not mix this product with a small amount of water Only add this product directly to your pool ] {This statement will appear on Pool use labels only }

**Can react with other materials including other water treatment products to cause intense fire explosion and the release of toxic gases**

- Keep all foreign matter including other water treatment products away from this product
- Do not allow this product to contact other water treatment products If used with a skimmer make sure skimmer is completely free of residue from other water treatment products before putting this product in a skimmer

**Exposure to heat can cause this product to rapidly decompose leading to intense fire explosion and the release of toxic gases**

- Store in a cool dry well ventilated area

**Strong oxidizing agent This product can increase fire intensity** Keep away from heat and from flame and burning material (like a lighted cigarette)

{Environmental hazards statement for end use products in containers less than 5 gallons (liquid) or less than 50 pounds (solid dry weight) use only the first sentence All others use the full paragraph }

**ENVIRONMENTAL HAZARDS** This pesticide is toxic to fish and aquatic organisms Do not discharge effluent containing this product into lakes ponds streams 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 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 & DISPOSAL**{Optional statements – usage depends on whether or not refillable or nonrefillable containers are used and whether or not product is packaged for household/residential use only}

{Nonrefillable container household/residential use}

[Keep this product dry in its tightly closed container when not in use Store in a cool dry well ventilated area Keep away from heat or open flame Nonrefillable container Do not reuse or refill this container Rinse empty container thoroughly with water to dissolve all material prior to disposal Offer for recycling if available Do not contaminate food or feed by storage or disposal or cleaning of equipment FOR DISPOSAL OF A CONTAMINATED OR DECOMPOSING PRODUCT SEE EMERGENCY HANDLING ]

{Refillable container – household/residential use}

[Keep this product dry in its tightly closed container when not in use Store in a cool dry well ventilated area Keep away from heat or open flame Do not contaminate food or feed by storage or disposal or cleaning of equipment FOR DISPOSAL OF A CONTAMINATED OR DECOMPOSING PRODUCT SEE EMERGENCY HANDLING Refillable container Refill this container with calcium hypochlorite only Do not use this container for any other purpose Rinse empty container thoroughly with water to dissolve all material prior to disposal ]

{Nonrefillable container non household/residential use}

[Keep this product dry in its tightly closed container when not in use Store in a cool dry well ventilated area Keep away from heat or open flame Do not contaminate food or feed by storage or disposal or cleaning of equipment FOR DISPOSAL OF A CONTAMINATED OR DECOMPOSING PRODUCT SEE EMERGENCY HANDLING Nonrefillable container Do not reuse this container Offer for recycling if available Rinse empty container thoroughly with water to dissolve all material prior to disposal ]

{Refillable container – non household/residential use}

[Keep this product dry in its tightly closed container when not in use Store in a cool dry well ventilated area Keep away from heat or open flame Do not contaminate food or feed by storage or disposal or cleaning of equipment FOR DISPOSAL OF A CONTAMINATED OR DECOMPOSING PRODUCT SEE EMERGENCY HANDLING Refillable container Refill this container with calcium hypochlorite only Do not use this container for any other purpose Cleaning of this container before final disposal is the responsibility of the person disposing of the container Cleaning before refilling is the responsibility of the refiller Rinse empty container thoroughly with water to dissolve all material prior to disposal ]

**EMERGENCY HANDLING** In case of contamination or decomposition – Do not reseal container Immediately remove container to an open and well ventilated outdoor area by itself Flood with large amounts of water Dispose of the container and any remaining contaminated material in an approved landfill area

[HTH] [brand] HELPLINE  
Toll Free 800 [brand] POOL (800 484 7665) (866 4POOLFUN)  
Call 7 days a week with your questions concerning pool water care  
8 00 a m 10 00 p m Eastern Time  
[Visit [brand] {website}]

[HTH®] [Sock It®] [Super Sock It®] and [pH Plus®] [Pulsar®] [DryTec®] [Constant Chlor®] [CCH®] (brand name) are registered trademarks of Arch Chemicals Inc

US Patent Number 5091165



{Optional} [ ]



{Optional} [ARCH]

{Optional marketing statements available to all labels}  
[Controls Algae]  
[Destroys Organic Contaminants]  
[No Need to Pre dissolve]  
[Destroys bacteria]  
[Controls [growth of] algae kills bacteria and destroys organic contaminants in pools]  
[Dry free flowing form]

[Concentrated chlorinating agent]  
[78% available chlorine]  
[Concentrated chlorinator for routine use]  
[Quick dissolving]  
[Fast acting [with minimal residue]]  
[Innovative]  
[Patented]  
[Exclusive [patented technology]]

{Optional statements for use with swimming pool sanitization or shock directions}

[Contains no cyanuric acid]  
[Will not cause over stabilization]  
[Sanitizes pool water]  
[Swimming pool sanitizer]  
[Good for all pool surfaces]  
[Multipurpose chlorinator for crystal clear water]  
[Multipurpose sanitizer for crystal clear water]  
[Multipurpose sanitizer and shock treatment [all in one]]  
[Step 2] {claim for use under shock directions}  
[Kills bacteria and controls algae]  
[For all pool types]  
[Kills bacteria kills algae and clarifies]  
[Maintains brilliantly clear water]  
[Unique patented formula supplies routine maintenance shock letting you achieve crystal clear sparkling water]

[Kills bacteria sanitizing your pool]  
[Sanitizes kills bacteria]  
[Shocks destroys swimmer contaminants]  
[Clarifies clears water]  
[Algaecide kills algae]  
[For use with all pool surfaces]  
[Maintains brilliantly clear water]  
[Restores water clarity]  
[All in one Chlorinates Shocks and Kills Algae]  
[Shock treatment and algaecide]  
[Shock treats and kills algae]  
Quick dissolving maximum strength formula  
Ideal for the toughest pool problems  
Crystal clear results in 24 hours  
For pools up to [15 000] gallons {depending on package size}  
Sanitizes Shocks and Destroys Algae



*{If the following Spanish statement is used it must appear directly above DIRECTIONS FOR USE }  
Si usted no entiende la etiqueta busque a alguien para que se la explique a usted en detalle (If you do not understand the label find someone to explain it to you in detail )*

**DIRECTIONS FOR USE**

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

READ ALL PRECAUTIONARY STATEMENTS BEFORE USE

**{Use 1}[SWIMMING POOLS**

**[WHY YOU SHOULD USE THIS PRODUCT** [For [crystal] [clean] [clear] pool water follow our 4 step pool care program Step 1 Test and adjust pool water balance Step 2 Chlorinate and clarify Step 3 Shock treat your pool at least once a week and Step 4 Add algaecide regularly [where needed] ]

**{Optional statement on dealer direct brands}**

[For best results follow the weekly [brand] 3 Step System Consult with your authorized [brand] Dealer for advice on the system that best suits your pool and your lifestyle ]

- [Step 1 Sanitize
- Step 2 Shock
- Step 3 Add algaecide OR Pool Plus]

[Take a pool water sample to your authorized [brand] dealer regularly for a detailed water analysis ]

{For commercial pool municipal and industrial labels } [This product is a concentrated chlorinating agent in a dry free flowing form which controls the growth of algae kills bacteria and destroys organic contaminants in pools spas and hot tubs ]

**HOW TO USE [Do not pre mix this product before adding it to your pool or skimmer ]**

**[Method for dosing directly into pool**

- Add the recommended dosage of this product during evening hours while the filter pump is running
- When adding this product to your pool broadcast the product evenly over a wide area in the deepest part of the pool
- If any granules settle to the bottom of the pool use brush to disperse {When contents are in a resealable container}
- **[Use only a clean dry [scoop] [lid] to measure this product] [Do not use the [scoop] lid for any other purpose ]]**

**[Method for skimmer addition**

[Use this method to avoid bleaching vinyl liner or paint ]

Make sure that filter pump is on and properly recirculating through skimmer Empty skimmer of all chemicals and/or debris Contamination may cause an explosion or the release of toxic gases Do not use this method when an automatic chemical dispensing device (e.g feeder) is present Pour this product slowly into skimmer making sure that the material is drawn into the system at the same rate do not allow this material to accumulate as toxic gases may be generated ]

{When contents are in a single use bag for use as a shock for pools 10 000 gallons or large } [Use entire contents when opened] If any granules settle to the bottom of the pool use brush to disperse

**WATER BALANCE** For best product performance swimmer comfort and crystal clear water Maintain pH in the range of 7.2 to 7.6 Maintain total alkalinity in the range of 60 to 120 {retail brands only Commercial brands for very large commercial or municipal pools will use [60 to 100]} parts per million (ppm) Maintain calcium hardness above 200 ppm Use a [brand] test kit that measures all these ranges Use [brand name] Pool Care Products to make adjustments Follow label directions for each product [Take a pool water sample to your authorized [brand] dealer regularly for a detailed water analysis]

Re entry into treated pools is prohibited above 4 ppm due to risk of bodily harm

**[OPENING YOUR POOL** For best results see the WATER BALANCE section on this label before treatment Always adjust and maintain pH in the 7.2 to 7.6 range Follow SHOCK TREATMENT / SUPERCHLORINATION directions on this package Allow 30 minutes for product to disperse Test free available chlorine residual with a pool test kit Repeat treatment as needed ]

**[ROUTINE CHLORINATION** For best results see the WATER BALANCE section on this label before treatment Throughout the pool season adjust and maintain pH at 7.2-7.6 Check available chlorine with a [brand] test kit ]

{For small pools 500 gallons to less than 10 000 gallons}  
[Each 0.1 - 0.4 ounces of this product will provide approximately 1.4 ppm available chlorine in 500 gallons of water Maintain these conditions for proper operation by frequent testing with a test kit Follow HOW TO USE directions on this package ]

{For pools 10 000 gallons and larger}  
[[**FOR UNSTABILIZED POOLS** Add 5.7 ounces of this product per 10 000 gallons of pool water daily or as often as needed to maintain the free available chlorine residual at 1 - 4 ppm Follow HOW TO USE directions on this package ] [**FOR POOLS STABILIZED [USING [brand] STABILIZER AND CONDITIONER]** Add 3-5 ounces per 10 000 gallons every other day or as often as needed to maintain the free available chlorine residual at 1.4 ppm Follow HOW TO USE directions on this package ]]

{For pools 10 000 gallons and larger}  
[**SHOCK TREATMENT / SUPERCHLORINATION** For best results see WATER BALANCE and HOW TO USE sections on this label before treatment Every 7 days or as necessary to prevent pool problems shock treat / superchlorinate the pool by adding 9.16 ounces [one bag {for 16 oz containers}] of this product per 10 000 gallons of water to provide 5 to 10 ppm available chlorine Additional shock treatments may be required to correct problems which are caused by visible algae high bathing loads heavy wind and rainstorms Additional shock treatments may also be required to correct problems such as unpleasant odors and eye irritation Check the available chlorine with a suitable test kit ]

{For pools 10 000 gallons and larger}  
[**ALGAE CONTROL** Follow SHOCK TREATMENT / SUPERCHLORINATION directions on this label Add this product as close as possible to any algae on the sides or bottom of the pool If necessary repeat the treatment To prevent possible staining or bleaching take the following steps immediately after treatment Thoroughly clean pool by brushing surface of algae growth vacuum and cycle through filter ]

{For preventative algae control use your preferred [brand] algaecide product regularly Follow label directions on the algaecide ]

[[Poolife Exclusive Pool Care Collection CleaRx or other brand name] Shock System If you are experiencing a severe algae bloom which has turned your pool green the [brand] Shock System can turn your pool sparkling blue again This two part system destroys the bacteria and algae that have taken over your pool and then makes it easy to vacuum out At the start of the season or if a severe algae bloom occurs during the season the pool can be treated and returned to its clear blue appearance within 24 hours by using [brand I] or this product] and [brand II] as part of the [brand] Shock System

- 1 Add 2.6 lbs of [brand I or this product] per 15 000 gallons of water into the pool with the circulation system turned on If any granules settle to the bottom of the pool use brush to disperse to assist in helping it to dissolve
- 2 Once [brand I or this product] has completely been dispersed in the pool water add 2.0 lbs of [brand II] per 15 000 gallons of water through the skimmer
- 3 Leave the system circulating for 1 hour then turn off the filter pump and allow to settle overnight
- 4 The following day vacuum the sediment to waste
- 5 If the pool has not settled out or is not blue in color repeat steps 1 3 and 4 ]

{Labels of resealable containers {2 lbs or more} used to treat pools 10 000 gallons and larger}

**[WINTERIZING** For best results see WATER BALANCE section on this label before treatment Gradually add 26 ounces of this product per 10 000 gallons of pool water that is clear and clean This provides 15 ppm free available chlorine Follow HOW TO USE directions on this package Run the filter pump until granules are completely dissolved Cover the pool with a pool cover Prepare the heater pump and filter components for winterizing by following manufacturer s directions ]

**{Use 2} [SPA AND HOT TUBS**

**[HOW TO USE** For best results see WATER BALANCE section on this label before treatment Maintain these conditions for proper operation by frequent testing with a [brand] test kit Do not allow cyanuric acid level to exceed 100 parts per million (ppm) It is recommended that spas and hot tubs be drained every 30 90 days more often under heavy use Consult manufacturer s recommendations concerning the compatibility of chlorine sanitizers with their equipment Some oils lotions fragrances cleansers etc may cause foaming or cloudy water and may react with chlorine sanitizers to reduce their efficacy If circulation is low stir water after addition of chlorine or other chemicals ]

**[WATER BALANCE** For best product performance comfort and crystal clear water Maintain pH in the range of 7.2 to 7.6 Maintain total alkalinity in the range of 60 to 120 ppm Maintain calcium hardness above 200 ppm Use a reliable test kit that measures all these ranges Use [brand name] [Spa] Care Products to make adjustments Follow label directions for each product ]

Re entry into treated spas/hot tubs is prohibited above 5 ppm due to risk of bodily harm

**[OPENING YOUR SPA] STARTUP (FRESHLY FILLED)** For best results see WATER BALANCE section on this label before treatment Turn on circulation system and ensure that it is operating properly Add one (1) ounce of this product to provide approximately 10 ppm available chlorine for each 500 gallons of water Check the free available chlorine (FAC) and if less than 4.5 ppm repeat as needed ]

**[ROUTINE CHLORINATION FOR] REGULAR USE** For best results see WATER BALANCE section on this label before treatment Turn on circulation system and ensure that it is operating properly Scatter 0.3 0.5 ounces of this product per 500 gallons over the surface of the water Test for free available chlorine and add additional product if necessary to maintain 3–5 ppm FAC while unit is in use ]

**[SHOCK TREATMENT / SUPERCHLORINATION** After each use shock treat with one (1) ounce of this product to provide approximately 10 ppm available chlorine per 500 gallons of water to control odors and algae Repeat as needed ]

**[ALGAE CONTROL** For preventative algae control use your preferred [brand name] [spa] algacide product regularly Follow the label directions on the algacide ]

**[Extended Non use Period** For best results see WATER BALANCE section on this label before treatment During extended non use periods when the unit is not being used add (1) one ounce of this product per 500 gallons twice a week with the circulation system running or as needed to maintain 3.5 ppm free available chlorine ]

{Optional for use on residential use swimming pool and spa products}

**{Use 3} [HUBBARD AND IMMERSION TANKS** Add 0.5 oz of this product per 120 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 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 Clean tank thoroughly and dry with clean cloths ]

**[HYDROTHERAPY TANKS** – Add 1 oz of this product per 1200 gallons of water to obtain a chlorine residual of 1 ppm as determined by a suitable chlorine test kit. Pool should 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 pump continuously. Drain pool weekly and clean before refilling.]

**{Use 4} [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 insure that the available chlorine does not drop below 50 ppm. Prepare a 100 ppm sanitizing solution by thoroughly mixing 1 oz of this product with 50 gallons of water. If no test kit is available, prepare a sanitizing solution by thoroughly mixing 1 oz of this product with 25 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 insure that the available chlorine does not drop below 50 ppm. Prepare a 100 ppm sanitizing solution by thoroughly mixing 1 oz of this product with 50 gallons of water. If no test kit is available, prepare a sanitizing solution by thoroughly mixing 1 oz of this product with 25 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. 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 1 oz product with 25 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 insure 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 1 oz product with 25 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 insure 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.

**[COARSE] SPRAY 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 1 oz product with 25 gallons of water Prepare a 600 ppm solution by thoroughly mixing the product in a ratio of 3 oz product with 25 gallons of water Use spray equipment which can resist hypochlorite solutions Always empty and rinse spray equipment with potable water after use 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 ]

**{Use 5} [SANITIZATION OF POROUS FOOD CONTACT SURFACES**

**RINSE METHOD** Prepare a 600 ppm solution by thoroughly mixing 3 oz of this product with 25 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 1 oz of this product with 25 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 3 oz of this product with 25 gallons of water Clean equipment in the normal manner Prepare a 200 ppm sanitizing solution by thoroughly mixing 1 oz of this product with 25 gallons of water Prior to using immerse equipment in the 200 ppm sanitizing solution for at least 2 minutes and allow the sanitizer to drain Do not rinse and do not soak equipment overnight

**[COARSE] SPRAY 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 3 oz product with 25 gallons of water Use spray equipment which can resist hypochlorite solutions Always empty and rinse spray equipment with potable water after use 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 Prepare a 200 ppm sanitizing solution by thoroughly mixing 1 oz of this product with 25 gallons of water ]

**{Use 6} [SANITIZATION OF NONPOROUS NON FOOD CONTACT SURFACES**

**RINSE METHOD** Prepare a sanitizing solution by thoroughly mixing 1 oz of this product with 25 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 a immersion tank 1 oz of this product with 25 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

**[COARSE] SPRAY 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 1 oz product with 25 gallons of water Use spray equipment which 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 ]

**{Use 7} [DISINFECTION OF NONPOROUS NON FOOD CONTACT SURFACES**

**RINSE METHOD** Prepare a disinfecting solution by thoroughly mixing 3 oz of this product with 25 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 3 oz of this product with 25 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 ]

**{Use 8} [SANITIZATION OF POROUS NON FOOD CONTACT SURFACES**

**RINSE METHOD** Prepare a sanitizing solution by thoroughly mixing 3 oz of this product with 25 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 3 oz of this product with 25 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.

**[COARSE] SPRAY METHOD** After cleaning, sanitize non food contact surfaces with 600 ppm available chlorine by thoroughly mixing the product in a ratio of 3 oz of this product with 25 gallons of water. Use spray equipment which can resist hypochlorite solutions. Always empty and rinse spray equipment with potable water after use. Prior to using equipment, thoroughly spray all surfaces until wet, allowing excess sanitizer to drain. Vacate area for at least 2 hours.]

**{Use 9} [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) of 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 should be the final and primary standard and the chlorine residual should 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 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 should 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.]

**{Use 10} [SEWAGE AND WASTEWATER TREATMENT**

**EFFLUENT SLIME CONTROL** Apply a 100 to 1,000 ppm available chlorine solution at a location which will allow complete mixing. Prepare this solution by mixing 2 to 20 oz of this product with 120 gallons of water. Once control is evident, apply a 15 ppm available chlorine solution. Prepare this solution by mixing 0.3 oz of this product with 120 gallons of water.

**FILTER BEDS SLIME CONTROL** Remove filter from service, drain to a depth of 1 ft above filter sand, and add 16 oz of product per 25 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.

**{Use 11} [DISINFECTION OF DRINKING WATER (EMERGENCY/PUBLIC/INDIVIDUAL SYSTEMS PUBLIC SYSTEMS**

[Mix a ratio of 1 oz of this product to 7,000 gallons of water.] {or} [Mix a ratio of 25 oz to 650 gal of this product into 25 gallons of water to make a 0.5% to 1.5% 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. Check water frequently with a chlorine test kit. Bacteriological sampling must be conducted at a frequency no less than that prescribed by the National Interim 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 oz. of this product into 50 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 oz. of this product into 50 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 should 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 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 should 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.]

**{Use 12} [PUBLIC WATER SYSTEMS**

**RESERVOIRS ALGAE CONTROL** Hypochlorinate streams feeding the reservoir. Suitable feeding points should 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 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, the system must be flushed free of all heavily chlorinated water.

**NEW TANKS BASINS ETC** Remove all physical soil from surfaces. Place 4 oz. of this product for each 6 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 200 to 250 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 1 oz. of this product for each 100 gallons of water. The solution should be pumped or fed by gravity into the well after thorough mixing with agitation. The well should 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 4 oz. of this product for each 6 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 1 oz. of this product for each 5 gallons of water (approximately 1,000 ppm available chlorine). After drying, flush with water and return to service.]

**{Use 13} [EMERGENCY DISINFECTION AFTER FLOODS**

**WELLS** Thoroughly flush contaminated casing with a 500 ppm available chlorine solution. Prepare this solution by mixing 1 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 a 50 ppm available chlorine residual. Agitate the well water for several hours and take a representative water sample. Treat well again 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 suitable 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 6 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 1 oz. of this product for each 5 gallons of water (1,000 ppm available chlorine). 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 200 to 250 cubic feet of sand. When the filter is severely contaminated, additional product should be distributed over the surface at the rate of 16 oz. per 25 sq. ft. Water should stand at a depth of 1 foot above the surface of the filter bed for 4 to 24 hours. When filter beds can be backwashed of mud and silt, apply 16 oz. of this product per each 60 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 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.]

**{Use 14} [EMERGENCY DISINFECTION AFTER FIRES**

**CROSS CONNECTIONS OR EMERGENCY CONNECTIONS** Hypochlorination or gravity feed equipment should 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.]

**{Use 15} [EMERGENCY DISINFECTION AFTER DROUGHTS**

**SUPPLEMENTARY WATER SUPPLIES** Gravity or mechanical hypochlorite feeders should 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 1 oz. of this product for each 10 gallons of water. During the filling of the containers, dose with sufficient amounts of this product to provide at least a 0.2 ppm chlorine residual. Use a chlorine test kit.]

**{Use 16} [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 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, the system must be flushed free of all heavily chlorinated water.]



**{Use 17} [COOLING TOWER/EVAPORATIVE CONDENSER WATER**

**SLUG FEED METHOD** Initial dose When system is noticeably fouled apply 10 to 20 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 2 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 10 to 20 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 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 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 10 to 20 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 2 oz of this product per 10 000 gallons of water lost by blow down to maintain a 1 ppm residual Badly fouled systems must be cleaned before treatment is begun ]

**{Use 18} [LAUNDRY SANITIZERS**

**HOUSEHOLD LAUNDRY SANITIZERS IN SOAKING SUDS** Thoroughly mix 1 Tbs of this product to 10 gallons of wash water to provide 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 1 Tbs 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 should be spun dry prior to sanitization Thoroughly mix 1 oz of this product with 25 gallons of water to yield 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

**[FEDERALLY INSPECTED MEAT & POULTRY PLANT LAUNDRY SANITIZERS** Wet fabrics which contact meat or poultry products directly or indirectly should be spun dry prior to sanitization Thoroughly mix 1 oz of this product with 25 gallons of water to yield 200 ppm available chlorine Promptly after mixing the sanitizer add the solution into the prewash prior to washing fabrics 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 Thoroughly rinse fabrics with potable water at the end of the laundering operation ]

**{Use 19} [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 2 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 or poultry or employ equipment until chlorine has been dissipated All treated feed racks mangers troughs automatic feeders fountains and waterers must be rinsed with potable water before reuse ]

**{Use 20} [PULP AND PAPER MILL PROCESS WATER SYSTEMS**

**SLUG FEED METHOD** Initial Dose When system is noticeably fouled apply 10 to 20 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 2 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 10 to 20 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 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 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 10 to 20 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 oz of this product per 10 000 gallons of water lost by blow down to maintain a 1 ppm residual Badly fouled systems must be cleaned before treatment is begun ]

**{Use 21} [AGRICULTURAL USES**

{Note The following WPS section will appear only on end use product labels that bear 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 requirements 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 should be worn as described under the Precautionary Statements section of this label

**BEES** 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 Using a suitable chemical feed dispenser and test kit dissolve and dose the chlorinated solution until a concentration of 1 ppm is achieved The bee domicile is disinfected by spraying with a 0.1 ppm solution until all surfaces are thoroughly wet Again use a suitable chemical feed dispenser to dissolve and dose the chlorinated solution until a concentration of 0.1 ppm is achieved Allow the domicile to dry until all chlorine odor has dissipated

**FOOD EGG SANITIZATION** Thoroughly clean all eggs Thoroughly mix 1 oz of this product with 20 gallons of warm water to produce a 200 ppm available chlorine solution The sanitizer temperature should 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 should not be reused to sanitize eggs

**COMMODITY FRUIT & VEGETABLE WASHING** Wash fruits and vegetables to remove organic matter then treat as noted below

**Table of Recommended Levels and Use Dilutions for Available Chlorine**

Commodity	Usage Dilution Dry Oz Added to 100 Gal of Water	Available Chlorine (ppm)	Contact Time
Apples	3 to 4	150 to 200	45 90 sec (dump tank) 5 15 sec (spray)
Artichoke	2 to 3	100 150	5 15 sec (spray)
Asparagus	2 4 to 3	125 150	5 15 sec (spray) 20 30 min (hydrocooler)
Brussels Sprouts	2 to 3	100 150	5 15 sec (spray)
Carrots	2 to 4	100 200	1 5 min (dump tank) 1 5 min (flume)
Cauliflower	6 to 8	300 400	5 15 sec (spray)
Celery	2 to 2 2	100 110	5 15 sec (spray)
Chopped Cabbage <sup>1</sup>	1 6 to 2	80 100	5 15 sec (spray)
Chopped Lettuce <sup>1</sup>	1 6 to 2	80 100	5 15 sec (spray)
Citrus Fruits	0 8 to 1 5 0 6 to 1 2 to 4	40 75 30 50 100 200	5 15 sec (spray) 2 3 min (dump tank) 3 5 min (drench)
Cucumber	6 to 7	300 350	5 15 sec (spray)
Green Onions	1 5 to 2 5	75 120	5 15 sec (spray)
Melons	2 to 3 0 6 to 1 5	100 150 30 75	5 15 sec (spray) 20 30 min (hydrocooler)
Pears	6 to 8	300 400	2 3 min (dump tank)
Peppers	6 to 8 2 to 2 8	300 400 100 135	5 15 sec (spray) 2 5 min (dump tank)
Potatoes	0 6 to 2 4 to 6 2 to 10	30 to 100 200 to 300 100 to 500	2 5 min (dump tank) 2 5 min (flume) 5 30 sec spray)
Radishes	2 to 3	100 150	5 15 sec (spray)
Stonefruits (Cherries Peaches Nectarines and Plums)	0 6 to 1 5 1 to 2	30 75 50 100	Hydrocooler 5 15 sec (spray)

Sweet Potatoes ( <i>Ipomoea batatas</i> ) to control & reduce spread of post harvest soft rot organisms	3 to 4	150 to 500	2 5 min (spray or dip change the solution after one hour or as needed)
Tomatoes	6 to 7 2 to 3	300 to 350 100 to 150	2 3 min (tank) 5 15 sec (spray)

<sup>†</sup>Note After treatment the adhering water must be removed by a centrifugation process

**SEEDS** To control bacterial spot (*Xanthomonas vesticatoria*) 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 39 000 ppm solution for 15 minutes with continuous agitation After treatment rinse seeds in potable water for 15 minutes Dry seeds to normal moisture The solution may be made by mixing 7 oz of this product with 1 gallon of water

**MUSHROOMS** To control bacterial blotch (*Pseudomonas tolaasii*) use a 100 to 200 ppm solution prior to watering mushroom production surfaces This solution may be made by mixing 0 2 to 0 4 oz of this product with 10 gallons of water First application should begin when pins form and thereafter between breaks on a need basis depending on the occurrence of bacterial blotch This product may be applied directly to pins to control small infection foci Apply 1 5 to 2 0 oz per square foot of growing space

**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 to 500 ppm solution for 2 to 5 minutes Thoroughly mix 0 3 to 1 0 oz of this product per 10 gallons of water to obtain this solution Monitor the chlorine concentration and change the solution after one hour or as needed ]

**{Use 22} [AQUACULTURAL USES**

**FISH PONDS** Remove fish from ponds prior to treatment Thoroughly mix 20 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 1 oz of this product to 25 gallons of water to obtain 200 ppm available chlorine Porous equipment should soak for one hour

**MAINE LOBSTER PONDS** Remove lobsters seaweed etc from ponds prior to treatment Drain the pond Thoroughly mix 1 200 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** Thoroughly mix 1 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 0 5 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 ]

**{Use 23} [SANITIZATION OF DIALYSIS MACHINES** Flush equipment thoroughly with water prior to using this product Thoroughly mix 8 oz of this product to 75 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 insure that no available chlorine remains in the system

This product is recommended for decontaminating single and multipatient hemodialysate systems. This product has been shown to be an effective disinfectant (virucide, 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 should be used in a disinfectant program which includes bacteriological monitoring of the hemodialysate delivery system. This product is NOT recommended for use in hemodialysate or reverse osmosis (RO) membranes. Consult the guidelines for hemodialysate systems available from the Hepatitis Laboratories, CDC, Phoenix, AZ 85021.]

**{Use 24} [TOILET BOWL SANITIZERS** These products are marketed as individual packages for placement in the toilet. Therefore, use directions are not appropriate. ]{{Claims are limited to sanitization. No claims for disinfection are permitted}}

**{Use 25} [ASPHALT OR SEALED/PAINTED WOOD ROOFS AND SIDINGS** To control fungus and mildew, first remove all physical soil by brushing and hosing with clean water, and apply a 5,000 ppm available chlorine solution. Mix 1 oz. of this product per gallon of water and brush or spray roof or siding. After 30 minutes, rinse by hosing with clean water.]

**{Use 26} [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 should contain approximately 500 gallons of water for a 14 foot boat. Add 3.5 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.]

**{Use 27} [ARTIFICIAL SAND BEACHES** To sanitize the sand, spray a 500 ppm available chlorine solution containing 0.1 oz. of this product per gallon of water at frequent intervals. Small areas can be sprinkled with a watering can.]

**{Use 28} [FOOD PROCESSING PLANTS TREATMENT OF FEDERALLY INSPECTED MEAT & POULTRY PLANT POTABLE WATER SUPPLIES** Solutions of this product containing 1% available chlorine will effectively disinfect the water supply in Federally Inspected Meat & Poultry Plants. The solutions should be fed into the water supply by a hypochlorinator on the intake side of the pump. An available chlorine residual of 0.1 to 0.6 ppm must be maintained throughout the water distribution system to assure adequate disinfection. A regular testing program should be initiated to make sure that the proper chlorine residuals are present at all times. To make a 1% solution, mix 10 ounces of this product into 5 gallons of water.]

**[COOLING WATER IN CANNERIES** Solutions of this product containing 1% available chlorine will sanitize cooling water, protect canned goods from contamination and spoilage and prevent staining of cans. The solution should be fed into cooling tanks or channels to reach a concentration of 2 ppm available chlorine. Check every two or three hours to be sure that an available chlorine residual of 2 ppm is maintained throughout the cooling system. To make a 1% solution, mix 10 ounces of this product into 5 gallons of water.]

**POULTRY DRINKING WATER** Spray or flush with a solution containing 1 oz. of this product per every gallon of water. Treat poultry drinking water to a dosage of 1 to 5 ppm available chlorine by adding 1 to 5 oz. of this product per 5,000 gallons of water.

**FISH FILLETING** Eviscerated and degilled fish removed from the fishing vessel are placed in a wash tank of seawater or fresh water which 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 to 48 hours before filleting. After scaling, the fish are again washed in a 25 ppm solution, and are ready for filleting.

**PECAN CRACKING AND DYEING** Prepare a 1000 ppm available chlorine soaking solution by adding 1 oz. of this product for each 5 gallons of water to obtain a 1000 ppm available chlorine content. Soak for a minimum of 10 minutes. After removal, age pecans for 24 hours. Before bleaching, pecans are placed in a rotary cleaner where they are washed, drained, and soaked in a 2% sulphuric acid bath at 80 to 90 F for 1 minute. Transfer to a solution containing 100 oz. of this product for each 100 gallons of water (5000 ppm). After 4 to 8 minutes, they are drained and washed in a 1% sulphuric acid bath at 80 to 90 F. They are then dried.]

**{Use 29} [IRRIGATION SYSTEMS****FOR THE CONTROL OF BACTERIA ALGAE SLIME BUILD UP AND CLOGGING IN SPECIFIED IRRIGATION SYSTEMS**

This product is to be applied through drip/trickle irrigation systems only for agricultural crops where this manner of use will not cause crop damage

**APPLICATION RATES**

If the irrigation water has high levels of nutrients causing bacterial algal or other bio fouling that reduces system performance continuous use of this product may be necessary The recommended level of free available 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 available chlorine Periodic shock treatments at a higher free available chlorine rate of up to 20 ppm free available chlorine 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

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

Note To correctly establish the dose setting required it is necessary to measure the free available chlorine concentration (ppm) at the end of the treated increment in the field and adjust the dose setting until the desired free available chlorine concentration is obtained This is because contaminants in the water may consume available chlorine resulting in a concentration that is less than the concentration desired as specified above Only experience can establish the actual chlorinator settings required to provide the amount of free available chlorine at the end of the farthest lateral (and consequent treatment of the irrigation system) Normally the treatment level at the end of the farthest lateral will be 1 2 ppm free available chlorine

**GENERAL APPLICATION INSTRUCTIONS**

Chlorination should be started during irrigation near the end of the irrigation sequence but early enough to establish the desired free available chlorine concentration throughout the system being treated Apply this product upstream of the filter to help keep the filter clean Determine the level of free available chlorine as described above using a free available chlorine test kit Allow sufficient time to achieve a steady reading DO NOT apply this product when fertilizers herbicides and insecticides are being injected since they will consume the free available chlorine and may produce toxic reaction products

Shut down the product feed as soon as the irrigation water is switched to the next irrigation sector Leave the treated water residing in the section that has been shut down Refer to the chlorinator use instructions as needed

**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 available chlorine Plant species such as tomato lettuce broccoli and petunia are sensitive to periodic chlorination levels of 10 20 ppm free available chlorine If uncertain of a plant's tolerance consult an agronomist or a support agency or use an alternate method to remove bio fouling from the irrigation system ]