

1258-1239

8/20/2012

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON D C 20460

August 20 2012

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Leigh Ann Richardson
Regulatory Supervisor
Arch Chemical Inc Lonza Inc
5660 New Northside Dr Suite 1100
Atlanta GA 30328

Subject HTH® Granular 73
EPA Reg # 1258 1239
Notification Date July 30 2012
Receipt Date August 1 2012

Dear Ms Richardson

This acknowledges the receipt of your notification submitted under the provision of PR Notice 98 10 and FIFRA section 3(c)9

Proposed Notification

To correct minor spelling errors move First Aid Statement from front panel by adding referral statement clarify Shock System instruction, add Spanish translation to Danger {PELIGRO} add superchlorination following SHOCK TREATMENT to read SHOCK TREATMENT/SUPERCHLORINATION consistent with approved Directions for Use heading and add marketing claims including posting of a website for HTH® Granular 73 (EPA Reg#1258 1239) product label Submitted label dated 7/30/12 and pin punch 8/01/12

General Comment

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

On page 4 of the current label it was noted websites addition www.hthpools.com and www.UltimaPoolSpa.com Should you wish to retain a reference to the company's websites on your label then please be aware that such a reference transforms the websites into labeling under the Federal Insecticide Fungicide and Rodenticide Act sec 2 (p) (2) and then the websites are subject to review by the Agency If the websites content is false or misleading the product would be misbranded and its sale or distribution unlawful to sell or distribute under FIFRA section 12(a)(1)(E) 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 Although EPA has not yet determined the extent to which it will routinely review company websites if the Agency finds or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from


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claims approved through the registration process the website may be referred to the EPA's Office of Enforcement and Compliance Assurance

This notification and this letter have been inserted in your file for future reference

If you have further question on this letter please contact David Liem at 703 305 1284 or by email at liem_david@epa.gov

Sincerely



Monisha Harris
Product Manager (32)
Regulatory Management Branch II
Antimicrobials Division (7510P)

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EPA Environmental Protection Agency Washington DC 20460	States <input type="checkbox"/> Registrations <input type="checkbox"/> Amendment <input type="checkbox"/> Other <input checked="" type="checkbox"/>	OPP Identifier Number
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Application for Pesticide Section 1

1 Company/Product Number 1258 1239	2 EPA Product Manager Monesha Harris	3 Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4 Company/Product (Name) HTH Granular 73	PM# 32	
5 Name and Address of Applicant (Include ZIP Code) Arch Chemicals Inc – Arch is now owned by Lonza 5660 New Northside Dr NW Suite 1100 Atlanta GA 30328 <input type="checkbox"/> Check if this is a new address		6 Expedited Review 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 for the addition of marketing claims and other minor label changes Refer to 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 *Leigh Ann Richardson* Date 7/30/12

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 Unit Packaging wgt No per container	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes Package wgt No per 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 checked="" type="checkbox"/> Label <input checked="" type="checkbox"/> Container		4 Size(s) Retail Container various		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 Leigh Ann Richardson	Title Regulatory Supervisor	Telephone No (Include Area Code) 678 627 2126
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 <i>Leigh Ann Richardson</i>	3 Title Regulatory Supervisor	
4 Typed Name Leigh Ann Richardson	5 Date 7/30/12	

Via Fed Ex

Ms Monisha Harris PM 32
Document Processing Desk (NOTIF)
Office of Pesticide Programs (7504P)
U S Environmental Protection Agency
Room S 4900 One Potomac Yard
2777 South Crystal Drive
Arlington VA 22202 4501

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

Leigh Ann Richardson
Lonza Microbial Control
Regulatory Services

Tel 678 627 2126
Fax 678 627 2081
LeighAnn.Richardson@Lonza.com

July 30 2012

**SUBJECT HTH Granular 73 EPA Reg No 1258 1239
Application for Label Notification**

granular for re-labeling

Dear Ms Harris

I am submitting an application to make the following changes to the above named product label

- 1 Add Note to reviewer to the top of page 1 ✓
- 2 Add the Spanish translation to DANGER (PELIGRO) as optional for the front panel ✓
- 3 First Aid and Precautionary Statements have been moved to page 2 and the following referral statement have been added to page 1 See [left] [right] [back] [side] panel for Precautionary and First Aid Statements The reason we are asking for this allowance is due to the size of some of our packaging The smaller sizes present a challenge to fit all of the required language on the front panel Our note to reviewer included the statement If the First Aid Statements are placed on the front panel of the final graphic label the statement below will not be used The intent of that statement was that when space was not an issue the language First Aid statements would appear on the front panel and the referral statement would not be used
- 4 Add a hyphen in the words well ventilated in two places on page 2
- 5 Add the following optional marketing statements on page 4
Multi Action
Visit UltimaPoolSpa.com
Customer Care 1 800 455 4311
- 6 Under Opening Your Pool on page 5 and under Algae Control on page 6 add /SUPERCHLORINATION so the statements read Follow SHOCK TREATMENT/SUPERCHLORINATION directions to match the heading name (SHOCK TREATMENT/SUPERCHLORINATION) located on page 6

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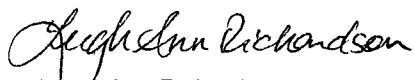
2/2 July 30 2012 HTH Granular 73 EPA Reg No 1258 1239 Label Notification

Please find enclosed the following documents in support of this notification

Application for Pesticide (8570 1)
Certification with Respect to Label Integrity
1 copy of the proposed label with changes highlighted
1 CD with proposed label

If you have any questions or need any additional information please feel free to contact me at 678
627 2126

Sincerely
Arch Chemicals Inc



Leigh Ann Richardson
Regulatory Supervisor

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® Granular 73

ACTIVE INGREDIENT	CALCIUM HYPOCHLORITE	73%
OTHER INGREDIENTS		27%
TOTAL		100%

[MINIMUM AVAILABLE CHLORINE 70%]

KEEP OUT OF REACH OF CHILDREN

DANGER [PELIGRO]

Contamination or improper use may cause fire or 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 Highly Corrosive Causes skin and eye damage May be fatal if swallowed

Read all precautionary statements and first aid 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 1239
EPA EST NO Xxxx yy zz
Net Wt xxxx

Arch Chemicals Inc
P O Box 724438
Atlanta GA 31139 1438

NOTIFICATION
 Date Reviewed 8/28/12
 Reviewed By [Signature]

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

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

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

- Open in a well ventilated area Avoid breathing dust and fumes ✓
- Do not get in eyes on skin or on clothing Do not handle with bare hands Wear goggles or face shield and use rubber gloves when handling For additional protection of skin wear long sleeves and long pants
- Remove and wash contaminated clothing before reuse

Only use utensils that are thoroughly clean and dry Irritating to nose and throat Avoid breathing dust and fumes

- Wash thoroughly with soap and water after handling and before eating drinking chewing gum using tobacco or going to restroom

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
- 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

Use only clean dry equipment to dispense this product

- Do not use this product in a container or dispensing device that has been used with any other product

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 < 5 gallons (liquid) or < 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

{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]

[[On ICM products only – per EPA Label Manual chap 13 p 5] [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

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®] [PACE®] [Sock It®] [Super Sock It®] and [pH Plus®] (brand name) are registered trademarks of Arch Chemicals Inc
[Patent no 4 728 454]
[MADE IN USA]

{MARKETING CLAIMS Statements available to all labels}
 [Concentrated chlorinator for routine use]
 [Sanitizes pool water]
 [Swimming pool sanitizer]
 [[Kills {or} Controls {or} Destroys {or} Eliminates bacteria] [destroys organic contaminants]
 [(perspiration suntan oil)] [and] kills {or} controls algae [and] clarifies [in pools]] {one or several of these claims can be used in any order}
 [Kills bacteria sanitizing your pool]
 [Sanitizes kills bacteria]
 [Shocks destroys swimmer contaminants]
 [Algaecide kills algae]
 [All in one Chlorinates Shocks and Kills Algae]
 [Shock treatment and algaecide]
 [Shock treats and kills algae]
 [Shock treatment for a crystal clear pool]
 [Sanitizes Shocks and Destroys Algae]
 [Concentrated [chlorinator] {or} [chlorinating agent] [for routine use]]
 [Multipurpose chlorinator for crystal clear water]
 [Multipurpose sanitizer for crystal clear water]
 [Multipurpose sanitizer and shock treatment all in one]
 [Multipurpose sanitizer and shock treatment]
 [Will not cause over stabilization]
 [Contains no cyanuric acid]
 [Clarifies clears water]
 [Maintains brilliantly clear water]
 [Restores water clarity]
 [Crystal clear results in 24 hours]
 [Convenient]
 [Easy to use]
 [Fast acting [with no {or} minimal residue]]
 [Quick {or} Fast dissolving] [maximum strength formula]
 [No need to predissolve] {only for swimming pool & spa products}
 [Dry free flowing form]
 [Innovative]
 [Exclusive patented technology]
 [Unique patented formula supplies routine maintenance shock letting you achieve crystal clear sparkling water]
 [Good for all pool surfaces]
 [For all pool types]
 [For use with all pool surfaces]
 [Ideal for the toughest pool problems]
 [For pools up to [15 000] gallons] {volume depends on package size}
 [Use Our 4 Simple Steps For A Beautiful Pool!]
 1 balance your pool water
 2 sanitize to keep bacteria away
 3 shock to maintain water clarity
 4 prevent algae from growing]

[Spend more time in your pool and less time cleaning]
 [With our legacy of excellence you can trust us with your pool care]
 [We are proud to be the do it yourself pool care experts with over 80 years of experience continual research and product innovation]
 [Need Help? Easy to use pool and spa care tips and detailed product information are just a click away
 Simply log on to www.hthpools.com or call 1 866 HTH POOL]
 [{recycle symbol} Made from 10% recycled paper]

{Optional statements for mass market brands}
 [Step 1 Balance]
 [Step 2 Sanitize]
 [Step 3 Shock]
 [Step 4 Prevent Algae]
 [Step 2] {claim for use under shock directions}
 [Exclusive for Hardware]
 [[Exclusive] Hardware Collection]
 [Hardware Exclusive]
 [Exclusive Pool Care]

{Optional statement for dealer direct brands}
 [Step 1 Sanitize
 Step 2 Shock {this product}
 Step 3 Add Algaecide]



{Optional} []

Made in USA



{Optional} []

[HELPLINE 866 HTH POOL {or other phone #}
 Toll Free
 Call 7 days a week with your questions concerning pool water care 8 00 a m 10 00 p m Eastern Time]

[Visit {website}]
 [Multi Action]
 [Visit UltimaPoolSpa.com]
 [Customer Care 1 800 455 4311]

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 This is a highly effective multi purpose product that sanitizes clarifies [helps] prevent[s] algae and shock treats your pool It is convenient easy to use and won t over stabilize your pool] [For crystal clean 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]] [For best results [during the season] follow [our {or} the] [brand] [4 step pool care program] [3 step pool care program] [outlined on this package]]

[Additional shocking to keep water clean and clear is recommended after rain and heavy winds high number of swimmers increased water temperature and/or increased frequency of pool usage]

{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]

{Small pools (500 gallons to less than 10 000 gallons) and pools 10 000 gallons and above}

[HOW TO USE 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 {When contents are in a resealable container} [Use a clean dry [scoop] lid to measure this product] [Do not use the [scoop] lid for any other purpose]

{When contents are in a single use bag for use as a shock for pools 10 000 gallons or larger} [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 product for very large commercial or municipal pools will use} [100] parts per million (ppm) Maintain calcium hardness above 200 ppm Use a [brand] [test kit] [or test strip] [or other testing method] that measures all these ranges Use [brand] Pool Care Products to make adjustments Follow label directions for each product

Re entry into treated pools is prohibited above 4 ppm due to risk of bodily harm {For Industrial/Municipal pool labels [Reenter pool when residual is 1.4 ppm or when chlorine residual meets local public health guidelines]}

OPENING YOUR POOL For best results see the WATER BALANCE section on this package 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 WATER BALANCE section above before treatment Throughout the pool season adjust and maintain pH at 7.2-7.6 Check available chlorine [with a [brand] [test kit] [or test strip] [or other testing method]

{For small pools 500 gallons to less than 10 000 gallons}

[Each 0.2 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 above before treatment Every 7 days or as necessary to prevent pool problems shock treat / super chlorinate the pool by adding 9 18 ounces [one bag {for 16 oz containers}] of this product per 10 000 gallons of water to provide 5 to 10 ppm available chlorine]

{alternate shock directions for 16 oz containers}

[One bag {for 16 oz containers} treats up to {choose gallons of water from chart to give dosage between 5 10 ppm}

gallons	ppm AvCl	oz for 5 ppm	oz for 10 ppm
8000	10 93	7 32	14 63
9000	9 72	8 23	16 46
10000	8 75	9 15	18 29
11000	7 95	10 06	20 12
12000	7 29	10 97	21 95
13000	6 73	11 89	23 78
14000	6 25	12 80	25 61
14500	6 03	13 26	26 52
15000	5 83	13 72	27 44
15500	5 64	14 18	28 35
16000	5 47	14 63	29 26
16500	5 30	15 09	30 18
17000	5 15	15 55	31 09
17500	5 00	16 00	32 01

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]

{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 above before treatment Gradually add 27 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 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]

[TO DETERMINE YOUR POOL CAPACITY IN U S GALLONS USE THE APPROPRIATE FORMULA BELOW

POOL SHAPE FORMULA (Use measurements in feet only)

RECTANGULAR Length x Width x Average Depth x 7 5 = Total Gallons

ROUND Diameter x Diameter x Average Depth x 5.9 = Total Gallons
OVAL Maximum Length x Maximum Width x Average Depth x 5.9 = Total Gallons
FREE FORM Surface Area (Sq Feet) x Average Depth x 7.5 = Total Gallons]

{Use 2} [SPA & HOT TUBS

[How To Use For best results see WATER BALANCE section below before treatment. Maintain these conditions for proper operation by frequent testing with a test kit. Do not allow cyanuric acid level to exceed 100 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 parts per million (ppm). Maintain calcium hardness above 200 ppm. Use a reliable test kit that measures all these ranges. Use [brand] [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 above 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 above 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 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] [spa] algaecide product regularly. Follow the label directions on the algaecide.

Extended Non use Period For best results see WATER BALANCE section above before treatment. During extended non use periods when the unit is not being used, add 1.4 ounces 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.]

{Use 3}

[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 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 1,000 gallons of water to obtain a minimum chlorine residual of 1 ppm as determined by a suitable chlorine test kit after satisfying any chlorine demand. 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.]

{Use4} [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 40 gallons of water. If no test kit is available prepare a sanitizing solution by thoroughly mixing 1 oz. of this product with 20 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 40 gallons of water. If no test kit is available, prepare a sanitizing solution by thoroughly mixing 1 oz. of this product with 20 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 20 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 20 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 Preclean 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 20 gallons of water Prepare a 600 ppm solution by thoroughly mixing the product in a ratio of 3 oz product with 20 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 20 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 20 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 20 gallons of water Clean equipment in the normal manner Prepare a 200 ppm sanitizing solution by thoroughly mixing 1 oz of this product with 20 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 Preclean 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 20 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 20 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 20 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 20 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 Preclean 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 20 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 20 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 20 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 20 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 20 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 20 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 100 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 100 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 20 sq ft evenly over the surface Wait 30 minutes before draining water to a level that is even with the top of the filter Wait for 4 to 6 hours before completely draining and backwashing filter]

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

PUBLIC SYSTEMS [Mix a ratio of 1 oz of this product to 6 000 gallons of water] {or} [Mix a ratio of 10 oz to 30 oz of this product into 10 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 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 40 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 40 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 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 to 200 cubic feet of sand. The action of the product dissolving as the water passes through the bed will aid in sanitizing the new sand.

NEW WELLS Flush the casing with a 50 ppm available chlorine solution of water containing 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 5 cubic feet capacity (approximately 500 ppm available chlorine) Fill to working capacity and let stand at least 4 hours Drain and place in service If the previous treatment is not practical surfaces may be sprayed with a solution containing 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 5 cu ft of water to obtain 500 ppm available chlorine as determined by a suitable test kit After 24 hours drain flush and return to service If the previous method is not suitable spray or flush the equipment with a solution containing 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 150 to 200 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 20 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 back washed of mud and silt apply 16 oz of this product per each 50 sq ft allowing the water to stand at a depth of 1 foot above the filter sand After 30 minutes drain water to the level of the filter After 4 to 6 hours drain and proceed with normal back washing

DISTRIBUTION SYSTEM Flush repaired or replaced section with water Establish a 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 20 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 20 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 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 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 1 to 4 1	150 to 200	45 90 sec (dump tank) 5 15 sec (spray)
Artichoke	2 1 to 3 1	100 150	5 15 sec (spray)
Asparagus	2 6 to 3 1	125 150	5 15 sec (spray) 20 30 min (hydrocooler)
Brussels Sprouts	2 1 to 3 1	100 150	5 15 sec (spray)
Carrots	2 1 to 4 1	100 200	1 5 min (dump tank) 1 5 min (flume)
Cauliflower	6 2 to 8 2	300 400	5 15 sec (spray)
Celery	2 1 to 2 3	100 110	5 15 sec (spray)
Chopped Cabbage ¹	1 6 to 2 1	80 100	5 15 sec (spray)
Chopped Lettuce ¹	1 6 to 2 1	80 100	5 15 sec (spray)
Citrus Fruits	0 8 to 1 5 0 6 to 1 0 2 1 to 4 1	40 75 30 50 100 200	5 15 sec (spray) 2 3 min (dump tank) 3 5 min (drench)
Cucumber	6 2 to 7 2	300 350	5 15 sec (spray)
Green Onions	1 5 to 2 5	75 120	5 15 sec (spray)
Melons	2 1 to 3 1 0 6 to 1 5	100 150 30 75	5 15 sec (spray) 20 30 min (hydrocooler)
Pears	6 2 to 8 2	300 400	2 3 min (dump tank)
Peppers	6 2 to 8 2 2 1 to 2 8	300 400 100 135	5 15 sec (spray) 2 5 min (dump tank)
Potatoes	0 6 to 2 1 4 1 to 6 2 2 1 to 10 5	30 to 100 200 to 300 100 to 500	2 5 min (dump tank) 2 5 min (flume) 5 30 sec (spray)
Radishes	2 1 to 3 1	100 150	5 15 sec (spray)
Stonefruits (Cherries Peaches Nectarines and Plums)	0 6 to 1 5 1 0 to 2 1	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 1 to 4 1	150 to 500	2 5 min (spray or dip change the solution after one hour or as needed)
Tomatoes	6 2 to 7 2 2 1 to 3 1	300 to 350 100 to 150	2 3 min (tank) 5 15 sec (spray)

[†]Note After treatment the adhering water must be removed by a centrifugation process

SEEDS To control bacterial spot (*Xanthomonas vesicatoria*) 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 8 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

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]

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 20 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 monitor 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 7 oz. of this product to 60 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.]

{Use 25} [ASPHALT OR 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 0.2 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, use a suitable chemical feed dispenser and test kit to dissolve and dose the chlorinated solution until a concentration of 10,000 ppm (1%) is achieved. To make a 1% solution, mix 10 ounces of this product into 5 gallons of water.

{Chlorine potable water treatment compounds}

[Chlorine may be present in the processing water of meat and poultry plants at concentrations up to 5 parts per million calculated as free available chlorine. Also, chlorine may be present in poultry chiller intake water and in

carcass wash water at concentrations up to 50 parts per million calculated as free available chlorine. Chlorine must be dispersed at a constant and uniform level and the method or system must be such that a controlled rate is maintained.

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 use a suitable chemical feed dispenser to dissolve and dose the chlorinated solution until a concentration of 10,000 ppm (1%) is achieved.

POULTRY DRINKING WATER [Not approved for use in the State of California] Spray or flush with a chlorinated solution using a suitable chemical feed dispenser and test kit to dissolve and dose the chlorinated solution until a concentration of 5,000 ppm (0.5%) is achieved. Treat poultry drinking water to a dosage of 1 to 5 ppm available chlorine. Use a suitable chemical feed dispenser to dissolve and dose the chlorinated solution until a concentration of 1 to 5 is achieved.]

{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 section. 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]