

66887-4

5/7/2009

1/10



Office of Pesticide Programs

MAY - 7 2009

FILE COPY

Irene Boone
Agent for Brenntag Pacific Inc.
17220 Westview Rd.
Lake Oswego, OR 97034

Subject: LA Chemchlor
EPA Registration No. 66887-4
Application Date: April 9, 2009
Receipt Date: April 17, 2009

Dear Ms. Boone:

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

Proposed Notification

- Addition of NSF Logo

General Comments

Based on a review of the material submitted, the following comments apply:

The notification application is acceptable and a copy has been inserted in your file for future reference.

Should you have any questions or comments concerning this letter, please contact me at (703) 308-6345.

Sincerely,

Wanda Y. Henson
Product Reviewer (32)
Regulatory Management Branch II
Antimicrobials Division (7510P)



United States
Environmental Protection Agency
Washington, DC 20460

<input type="checkbox"/>	Registration
<input type="checkbox"/>	Amendment
<input checked="" type="checkbox"/>	Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number Brenntag Pacific, Inc./ 66887-4	2. EPA Product Manager Emily Mitchell	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Brenntag Pacific, Inc/LA Chemchlor	PM# 32	
5. Name and Address of Applicant (Include ZIP Code) Brenntag Pacific, Inc. 10747 Patterson Place Santa Fe Springs, CA 90670 <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: <input checked="" type="checkbox"/> 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.)
 NOTIFICATION PER PR NOTICE 98-10. Add NSF logo to product label. NSF certification for 3 Brenntag Pacific, Inc sites and 1 proposed labeling enclosed. See cover letter for further explanation.
 Non-PRIA action.
 Fax: 503/536-6505 Email: boone5121@comcast.net

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Type of Container <input checked="" type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
* Certification must be submitted		If "Yes" Unit Packaging wgt. No. per container	If "Yes" Package wgt No. per container

3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container	4. Size(s) Retail Container 5,15,30,52,bulk	5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input checked="" type="checkbox"/> Other _____ pressure

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)

Name Irene Boone	Title Agent, Brenntag Pacific	Telephone No. (Include Area Code) 503/675-8525
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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 	3. Title Agent for Brenntag Pacific, Inc.	
4. Typed Name Irene Boone	5. Date April 9, 2009	



REGULATORY SERVICES INC.

April 9, 2008

Document Processing Desk (NOTIF)
Office of Pesticide Programs-7504P
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460-0001

SUBJECT: Notification per PR Notice 98-10
LA Chemchlor, EPA Reg. No. 66887-4

Dear Sir or Madam,

To support the subject notification, enclosed are the following:

- 1) Application for Pesticide Registration form
- 2) Notification statement per PR Notice 98-10
- 3) 1 copy of proposed labeling
- 4) 1 copy each of 3 NSF International letters for 3 Brenntag Pacific Inc. site
- 5) Copy of EPA approval of product transfer

The subject of this notification is to add the NSF logo to the front panel of the product label as allowed by NSF International.

Since this submission is a non-PRIA II action, no fee is required.

Should you have questions concerning this submission, please contact me at 503/675-8525 or via email: boone5121@comcast.net

Thank you.

Sincerely,

Irene Boone

Agent for Brenntag Pacific Inc.

Cc: Suzanne Miller, BPI-Richmond, CA



REGULATORY SERVICES INC.

PRODUCT: LA Chemchlor, EPA Reg. No. 66887-4
COMPANY: Brenntag Pacific, Inc.
DATE: April 9, 2009
SUBJECT: Notification of label change per PR Notice 98-10

This notification is consistent with the guidance in PR Notice 98-10 and the requirements of EPA regulations at 40 CFR § 156.10, 156.140, 156.144, 156.146 and 156.156. No other changes have been made to the labeling or Confidential Statement of Formula for 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 the amended label is not consistent with the requirements of 40 CFR § 156.10, 156.140, 156.144, 156.146, and 156.156, 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.

Irene Boone, Agent for Brenntag Pacific, Inc.

NOTIFICATION
Date Reviewed: 5/17/09
Reviewed By: [Signature]

LA CHEMCHLOR

ACTIVE INGREDIENT:
SODIUM HYPOCHLORITE 12.5%
INERT INGREDIENTS 87.5%
TOTAL 100.0%

KEEP OUT OF REACH OF CHILDREN
DANGER

FIRST AID	
If in eyes	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none"> Call a poison control center or doctor immediately for treatment advice Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center doctor.
If inhaled	<ul style="list-style-type: none"> If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Do not give anything by mouth to an unconscious person.
HOT LINE NUMBER	
Have the product container or label with you when you call a poison control center or doctor, or when going for treatment.	
NOTE TO PHYSICIAN	
Probable mucosal damage may contraindicate the use of gastric lavage.	

See other precautions on this label.

Corporate Headquarters:
Brenntag Pacific, Inc.
10747 Patterson Place
Santa Fe Springs, California 90670
(562) 903-9626

EPA EST. NO 66887-CA-002 (Fresno)
 666887-CA-007 (South Gate)
 66887-CA-006 (Richmond)

EPA REG. NO. 66887-4



Certified to ANSI/NSF Standard 60
Maximum Use for Potable
Water 84 mg/liter

LOT _____

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER: Corrosive, may cause severe skin and eye irritation or chemical burns to broken skin. Cause damage. May be fatal if swallowed. Avoid breathing vapors. Do not get in eyes, on skin, or on clothing. goggles or face shield and rubber gloves when handling this product. Wash after handling. Vacate ventilated areas as soon as possible. Do not return until odors have dissipated.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into streams, ponds, estuaries, oceans or public waters unless this product is specifically identified and addressed NPDES permit. Do not discharge effluent containing this product into sewer systems without previously notifying sewage treatment plant authority. For guidance, contact your State Water Board or regional office of the Environmental Protection Agency.

PHYSICAL AND CHEMICAL HAZARDS

STRONG OXIDIZING AGENT: Use only according to label directions. Mixing this product with gross filth, soot, feces, urine, etc. or with ammonia, acids, detergents, or other chemicals will release hazardous gases which are irritant to eyes, lungs and mucous membranes.

STORAGE AND DISPOSAL

STORAGE: Store this product in a cool dry area, away from direct sunlight and heat to avoid deterioration. Do not contain food or feed by storage, disposal or cleaning of equipment. **PESTICIDE DISPOSAL:** In case of spills, flood areas with quantities of water. **CONTAINER DISPOSAL:** (For 55 gal, returnable drum) Refillable container. Refill this container pesticide only. Do not reuse this container for any other purpose. Cleaning this container before final disposal is responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Put pump rinse into application equipment or rinse collection system. Repeat this rinsing procedure two more times. Nonrefillable container requires a deposit, return it to Brenntag Pacific Inc. or its distributor for a refund. (For less than 55 gal, nonrefill no deposit containers). Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available, container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

WARRANTY

Seller warrants that this product conforms to the chemical description on this label and is reasonably fit for purposes stated this label only when used in accordance with directions under normal use conditions. This warranty does not extend to this product contrary to label directions, or under abnormal use conditions, or under conditions not reasonably foreseeable seller. Seller makes no other warranties, either expressed or implied.

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling.
Note - This product degrades with age. Use a chlorine test kit and increase dosage, as necessary, to obtain the required of available chlorine.
This product is a broad-based sanitizer, which has many uses. For a copy of the complete usage instructions, contact Brenntag Pacific, Inc. or your Brenntag Pacific, Inc. distributor or dealer.

SWIMMING POOL WATER DISINFECTION

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

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

Every 7 days, or as necessary, superchlorinate the pool with 52 to 104 oz. of product for each 10,000 gallons of water to 5 to 10 ppm available chlorine by weight. Check the level of available chlorine with a test kit. Do not re-enter pool until chlorine residual is between 1.0 to 3.0 ppm.

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

WINTERIZING POOLS - While water is still clear & clean, apply 3 oz. of product per 1,000 gallons, while filter is running obtain a 3 ppm available chlorine residual, as determined by a suitable test kit. Cover pool, prepare heater, filter and components for winter by following manufacturer's instructions.

HYDROTHERAPY TANKS - Add 1 oz. of this product per 1,000 gallons of water to obtain a chlorine residual of 1 ppm determined by a suitable chlorine test kit. Pool should not be entered until the chlorine residual is below 3 ppm. Adjust maintain the water pH to between 7.2 and 7.6. Operate pool filter continuously. Drain pool weekly and clean before refilling.

NET CONTENTS _____ **GALLONS** **DOT:** _____

NOTIFICATION
Date Reviewed: 5/17/09
Reviewed By: [Signature]

MCHLOR

IT:
ORITE 12.5%
FS 87.5%
..... 100.0%

EACH OF CHILDREN
NGER

AID
slowly and gently with water for 15 - 20 minutes. If present, after the first five minutes, then continue rinsing.
ter or doctor for treatment advice.
othing. with plenty of water for 15-20 minutes. ter or doctor for treatment advice.
enter or doctor immediately for treatment advice is of water if able to swallow. unless told to do so by a poison control center doctor.
thing, call 911 or an ambulance, then give artificial mouth-to-mouth if possible. by mouth to an unconscious person.
INE NUMBER
with you when you call a poison control treatment.
TO PHYSICIAN
contraindicate the use of gastric lavage.

itions on this label.
headquarters:
Pacific, Inc.
erson Place
s, California 90670
103-9626



Certified to ANSI/NSF Standard 60
Maximum Use for Potable
Water 84 mg/liter

G. NO. 66887-4

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PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER: Corrosive, may cause severe skin and eye irritation or chemical burns to broken skin. Causes eye damage. May be fatal if swallowed. Avoid breathing vapors. Do not get in eyes, on skin, or on clothing. Wear goggles or face shield and rubber gloves when handling this product. Wash after handling. Vacate poorly ventilated areas as soon as possible. Do not return until odors have dissipated.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or public waters unless this product is specifically identified and addressed in an NPDES permit. Do not discharge effluent containing this product into sewer systems without previously notifying the sewage treatment plant authority. For guidance, contact your State Water Board or regional office of the U.S. Environmental Protection Agency.

PHYSICAL AND CHEMICAL HAZARDS

STRONG OXIDIZING AGENT: Use only according to label directions. Mixing this product with gross filth, such as feces, urine, etc. or with ammonia, acids, detergents, or other chemicals will release hazardous gases which are irritating to eyes, lungs and mucous membranes.

STORAGE AND DISPOSAL

STORAGE: Store this product in a cool dry area, away from direct sunlight and heat to avoid deterioration. Do not contaminate food or feed by storage, disposal or cleaning of equipment. **PESTICIDE DISPOSAL:** In case of spills, flood areas with large quantities of water. **CONTAINER DISPOSAL:** (For 55 gal. returnable drum) Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning this container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. If container requires a deposit, return it to Brenntag Pacific Inc. or its distributor for a refund. (For less than 55 gal. nonrefillable, no deposit containers). Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

WARRANTY

Seller warrants that this product conforms to the chemical description on this label and is reasonably fit for purposes stated on this label only when used in accordance with directions under normal use conditions. This warranty does not extend to use of this product contrary to label directions, or under abnormal use conditions, or under conditions not reasonably foreseeable to seller. Seller makes no other warranties, either expressed or implied.

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling.
Note - This product degrades with age. Use a chlorine test kit and increase dosage, as necessary, to obtain the required level of available chlorine.
This product is a broad-based sanitizer, which has many uses. For a copy of the complete usage instructions, contact Brenntag Pacific, Inc. or your Brenntag Pacific, Inc. distributor or dealer.

SWIMMING POOL WATER DISINFECTION

For a new pool or spring start-up, superchlorinate with 52 to 104 oz. of product for each 10,000 gallons of water to yield 5 to 10 ppm available chlorine by weight. Check the level of available chlorine with a test kit. Adjust and maintain pool water pH to between 7.2 and 7.6. Adjust and maintain the alkalinity of the pool to between 50 to 100 ppm.
To maintain the pool, add manually or by a feeder device, 11 oz. of this product for each 10,000 gallons of water to yield an available chlorine residual between 0.6 to 1.0 ppm by weight. Stabilized pools should maintain a residual of 1.0 to 1.5 ppm available chlorine. Test the pH, available chlorine residual and alkalinity of the water frequently with appropriate test kits. Frequency of water treatment will depend upon temperature and number of swimmers.
Every 7 days, or as necessary, superchlorinate the pool with 52 to 104 oz. of product for each 10,000 gallons of water to yield 5 to 10 ppm available chlorine by weight. Check the level of available chlorine with a test kit. Do not re-enter pool until the chlorine residual is between 1.0 to 3.0 ppm.

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

WINTERIZING POOLS - While water is still clear & clean, apply 3 oz. of product per 1,000 gallons, while filter is running, to obtain a 3 ppm available chlorine residual, as determined by a suitable test kit. Cover pool, prepare heater, filter and heater components for winter by following manufacturer's instructions.

HYDROTHERAPY TANKS - Add 1 oz. of this product per 1,000 gallons of water to obtain a chlorine residual of 1 ppm, as determined by a suitable chlorine test kit. 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 continuously. Drain pool weekly and clean before refilling.

SANITIZATION OF NONPOROUS FOOD CONTACT SURFACE

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

Clean equipment surfaces in the normal manner. Prior to use, rinse all surfaces thoroughly with the 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 re-establish a 200 ppm available chlorine. 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 re-used for sanitizing.

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

Clean equipment in the normal manner. Prior to use, immerse equipment in the sanitizing solution for at least 2 minutes. 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 after treatment.

Sanitizers used in automated systems may be used for general cleaning but may not be re-used for sanitizing.

FLOW/PRESSURE METHOD - Disassemble equipment and thoroughly clean after use. Assemble equipment in the normal position prior to use. Prepare a volume of a 200 ppm available chlorine sanitizing solution equal to 110% of the equipment by mixing the product in a ratio of 2 oz. product with 10 gallons of water. Pump solution until full flow is obtained at all extremities, the system is completely filled with the sanitizer and all air is removed. Close drain valves and hold under pressure for at least 2 minutes to insure contact with all internal surfaces. 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 sanitizing solution equal to 110% of volume capacity of the equipment by mixing the product in a ratio of 2 oz. product with 10 gallons of water. Pump solution through the system until full flow is obtained at all extremities, the system is completely filled with the sanitizer and all air is removed from the system. Close drain valves and hold under pressure for at least 2 minutes to 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.

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

SANITIZATION OF POROUS FOOD CONTACT SURFACE

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

IMMERSION METHOD - Prepare a sanitizing solution by thoroughly mixing, in an immersion tank, 6 oz. of this product with 10 gallons of water to provide approximately 600 ppm available chlorine by weight. Clean equipment in the normal manner. Prior to use, immerse equipment in the sanitizing solution for at least two minutes and allow the Rinse equipment with water after treatment.

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

NET CONTENTS _____ GALLONS DOT: HYPOCHLORITE SOLUTIONS, 8, UN1791

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

irritative, may cause severe skin and eye irritation or chemical burns to broken skin. Causes eye irritation if swallowed. Avoid breathing vapors. Do not get in eyes, on skin, or on clothing. Wear protective clothing and rubber gloves when handling this product. Wash after handling. Vacate poorly ventilated areas as soon as possible. Do not return until odors have dissipated.

ENVIRONMENTAL HAZARDS

Toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, estuaries, oceans or public waters unless this product is specifically identified and addressed in an approved discharge permit. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewerage treatment plant authority. For guidance, contact your State Water Board or regional office of the U.S. Environmental Protection Agency.

PHYSICAL AND CHEMICAL HAZARDS

IRRITATING AGENT: Use only according to label directions. Mixing this product with gross filth, such as feces or ammonia, acids, detergents, or other chemicals will release hazardous gases which are irritating to mucous membranes.

STORAGE AND DISPOSAL

Store this product in a cool dry area, away from direct sunlight and heat to avoid deterioration. Do not contaminate equipment or clothing of equipment. **PESTICIDE DISPOSAL:** In case of spills, flood areas with large amounts of water. **CONTAINER DISPOSAL:** (For 55 gal. returnable drum) Refillable container. Refill this container with water to not reuse this container for any other purpose. Cleaning this container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container, empty the remaining contents from this container into application equipment or mix tank. Fill with 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump application equipment or rinsate collection system. Repeat this rinsing procedure two more times. If a deposit, return it to Brenntag Pacific Inc. or its distributor for a refund. (For less than 55 gal. nonrefillable containers), Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean thoroughly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank. Fill with water. Replace and tighten closures. Tip container on its side and roll it back and forth, one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or store for later use or disposal. Repeat this procedure two more times.

WARRANTY

This product conforms to the chemical description on this label and is reasonably fit for purposes stated on the label when used in accordance with directions under normal use conditions. This warranty does not extend to use of the product in violation of label directions, or under abnormal use conditions, or under conditions not reasonably foreseeable to the manufacturer.

DIRECTIONS FOR USE

Use in accordance with the federal law to use this product in a manner inconsistent with its labeling. Do not use if the product has expired or if the label has been damaged. Use a chlorine test kit and increase dosage, as necessary, to obtain the required level of disinfection. Use a broad-based sanitizer, which has many uses. For a copy of the complete usage instructions, contact Brenntag Pacific, Inc. distributor or dealer.

SWIMMING POOL WATER DISINFECTION

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

For routine maintenance, add manually or by a feeder device, 11 oz. of this product for each 10,000 gallons of water to yield a residual between 0.6 to 1.0 ppm by weight. Stabilized pools should maintain a residual of 1.0 to 1.5 ppm available chlorine by weight. Test the pH, available chlorine residual and alkalinity of the water frequently with appropriate test kits. The amount of product required will depend upon temperature and number of swimmers.

As necessary, superchlorinate the pool with 52 to 104 oz. of product for each 10,000 gallons of water to yield 5 to 10 ppm available chlorine by weight. Check the level of available chlorine with a test kit. Do not re-enter pool until the residual is between 1.0 to 3.0 ppm.

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

POOLS - While water is still clear & clean, apply 3 oz. of product per 1,000 gallons, while filter is running, to maintain available chlorine residual, as determined by a suitable test kit. Cover pool, prepare heater, filter and heater controls by following manufacturers' instructions.

PY TANKS - Add 1 oz. of this product per 1,000 gallons of water to obtain a chlorine residual of 1 ppm, as determined by a suitable chlorine test kit. Pool should not be entered until the chlorine residual is below 3 ppm. Adjust and maintain pH to between 7.2 and 7.6. Operate pool filter continuously. Drain pool weekly and clean before refilling.

SANITIZATION OF NONPOROUS FOOD CONTACT SURFACES

RINSE METHOD - A solution of 100 ppm available chlorine may be used in the sanitizing solution if a chlorine test kit is available. Solutions containing an initial concentration of 100 ppm available chlorine must be tested and adjusted periodically to 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 10 gallons of water. If no test kit is available, prepare a sanitizing solution by thoroughly mixing 2 oz. of this product with 10 gallons of water to provide approximately 200 ppm available chlorine by weight.

Clean equipment surfaces in the normal manner. Prior to use, rinse all surfaces thoroughly with the sanitizing solution, maintaining contact with the sanitizer for at least 2 minutes. If solution contains less than 50 ppm available chlorine, as determined by a suitable test kit, either discard the solution or add sufficient product to re-establish 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 re-used for sanitizing purposes.

IMMERSION METHOD - A solution of 100 ppm available chlorine may be used as 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 10 gallons of water. If no test kit is available, prepare a sanitizing solution by thoroughly mixing 2 oz. of this product with 10 gallons of water to provide approximately 200 ppm available chlorine by weight.

Clean equipment in the normal manner. Prior to use, immerse equipment in the sanitizing solution for at least 2 minutes and allow the sanitizer to drain. 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 re-used for sanitizing purposes.

FLOW/PRESSURE METHOD - Disassemble equipment and thoroughly clean after use. Assemble equipment in operating position prior to use. Prepare a volume of a 200 ppm available chlorine sanitizing solution equal to 110% of volume capacity of the equipment by mixing the product in a ratio of 2 oz. product with 10 gallons of water. Pump solution through the system until full flow is obtained at all extremities, the system is completely filled with the sanitizer and all air is removed from the system. Close drain valves and hold under pressure for at least 2 minutes to 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 2 oz. of product with 10 gallons of water. Pump solution through the system until full flow is obtained at all extremities, the system is completely filled with the sanitizer and all air is removed from the system. Close drain valves and hold under pressure for at least 10 minutes to 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.

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

SANITIZATION OF POROUS FOOD CONTACT SURFACES

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

IMMERSION METHOD - Prepare a sanitizing solution by thoroughly mixing, in an immersion tank, 6 oz. of this product with 10 gallons of water to provide approximately 600 ppm available chlorine by weight. Clean equipment in the normal manner. Prior to use, immerse equipment in the sanitizing solution for at least two minutes and allow the sanitizer to drain. Rinse equipment with water after treatment.

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

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SANITIZATION OF NONPOROUS NON-FOOD CONTACT SURFACES

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

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

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

DISINFECTION OF NONPOROUS NON-FOOD CONTACT SURFACES

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

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

SANITIZATION OF POROUS NON-FOOD CONTACT SURFACES

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

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

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

SEWAGE & WASTEWATER EFFLUENT TREATMENT

The disinfection of sewage effluent must be evaluated by determining that 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 controlling chlorine residual with bacterial kill must be emphasized. The MPN of the effluent, which is directly related to the water quality standards requirement, 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 critical quality of the effluent.

The following are critical factors affecting wastewater disinfection.

- Mixing: It is imperative that the product and the wastewater be instantaneously and completely flash mixed to assure reaction with every chemically active, soluble and particulate component of the wastewater.
- Contacting: Upon flash mixing, the flow through the system must be maintained.
- 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.

SEWAGE AND WASTEWATER TREATMENT

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

FILTER BEDS AND SLIME CONTROL - Remove filter from service, drain to a depth of 1 foot above filter sand, and add 60 oz. of product per 200 cubic feet evenly over the surface. Wait 30 minutes before draining water to a level that is even with the top of the filter. Wait for 4 to 6 hours before completely draining and backwashing filter.

DISINFECTION OF DRINKING WATER

PUBLIC SYSTEMS - Mix a ratio of 1 oz. of this product to 100 gallons of water. Begin feeding this solution with a hypochlorinator until a free available chlorine residual of at least 0.2 ppm and no more than 0.5 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 casing (lining) with a 100 ppm available chlorine solution using a silt brush. This solution can be made by thoroughly mixing 1 oz. of this product into 10 gallons of water. After covering the well, pour the sanitizing solution into the well through both the pipe sleeve opening and the pipeline. Wash the exterior of the pump cylinder also with the sanitizing solution. Start pump and pump water until strong odor of chlorine in water is noted. Stop pump and wait at least 24 hours. After 24 hours flush well until all traces of chlorine have been removed from the water. Consult your local Health Department for further details.

INDIVIDUAL SYSTEMS - DRILLED, DRIVEN, & BORED WELLS - Run pump until water is as free from turbidity as possible. Run a 100 ppm available chlorine sanitizing solution into the well. This solution can be made by thoroughly mixing 1 oz. of this product into 10 gallons of water. Add 5 to 10 gallons of clean chlorinated water to the well in order to force the sanitizer into the rock formation. Wash the exterior of pump cylinder with the sanitizer. Stop 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 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 drop of this product to 20 gallons of water. 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 several times.

PUBLIC WATER SYSTEMS

ALGAE CONTROL IN RESERVOIRS - Hypochlorite streams feeding the reservoir. Suitable feed points should be selected off each stream a 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 a 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 line. When chlorination is completed, the system must be flushed free of all heavily chlorinated water.

NEW TANKS, BASINS, ETC. - Remove all physical soil from surfaces. Place 20 oz. of this product for each 5 cubic feet of working capacity (5 working capacity and allow to stand for at least 4 hours. Drain and flush with potable water and place in service.

NEW FILTER SAND - Apply 80 oz. of this product for each 150 to 200 cubic feet of sand. The action of the product dissolving as the water is sanitizing the new sand.

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

EXISTING EQUIPMENT - Remove equipment from service, and thoroughly clean surfaces of all physical soil. Sanitize by placing 21 oz. of this product (approximately 500 ppm available chlorine). Fill to working capacity and let stand at least 4 hours. Drain and return to service. If the previous treat has been sprayed with a solution containing 5 oz. of this product for each 5 gallons of water (approximately 1000 ppm available chlorine). After drying, flush the new sand.

EMERGENCY DISINFECTION AFTER FLOODS

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

RESERVOIRS - In case of contamination by overflowing streams, establish hypochlorinating stations upstream of the reservoir. Chlorinate the reservoirs a 0.2 ppm available chlorine residual, as determined by a suitable chlorine test kit. In case of contamination from surface drainage, add reservoir to obtain a 0.2 ppm available chlorine residual in all parts of the reservoir.

BASINS, TANKS AND FLUMES, ETC. - Thoroughly clean all equipment, then apply 20 oz. of product per 5 cubic feet of water to obtain 500 ppm 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 product for each 5 gallons of water (1000 ppm available chlorine). Allow to stand for 2 to 4 hours, flush and return to service.

FILTERS - When the sand filter needs replacement, apply 80 oz. of this product for each 150 to 200 cubic feet of sand. When the filter is severely should be distributed over the surface at the rate of 80 oz. of this product per 20 square feet. Water should stand at a depth of 1 foot above the surface of the filter beds can be backwashed of mud and silt, apply 80 oz. of this product per each 50 square feet, allowing the water to stand at a depth of 1 foot above 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 on a hypochlorinating station and apply sufficient product or residual of at least 10 ppm remains after a 24 hour retention time. Use a chlorine test kit.

EMERGENCY DISINFECTION AFTER FIRES

CROSS CONNECTIONS OR EMERGENCY CONNECTIONS - Hypochlorination or gravity feed equipment should be set up near the intake of 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.

EMERGENCY DISINFECTION AFTER DROUGHTS

SUPPLEMENTARY WATER SUPPLIES - Gravity or mechanical hypochlorite feeders should be set up on a supplementary line to dose the water 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 for 5 minutes. This solution is made by mixing 5 oz. of this product for each 10 gallons of water. During the filling of the containers, add product to provide at least a 0.2 ppm chlorine residual. Use a chlorine test kit.

EMERGENCY DISINFECTION AFTER MAIN BREAKS

MAINS - Before assembly of the repaired section, flush out mud and soil. Permit a water flow at least 2.5 feet per minute to continue under pressure 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 chlorination is completed, the system must be flushed free of all heavily chlorinated water.

COOLING TOWER AND EVAPORATIVE CONDENSER WATER

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

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

INTERMITTENT FEED METHOD - Initial Dose: When system is noticeably fouled, apply 52 to 104 oz. of this product per 10,000 gallons of water per available chlorine. Apply half (or 1/3, 1/4, or 1/5) of this initial dose when half (or 1/3, 1/4, or 1/5) of the water in the system has been lost by blowdown. Subsequent Doses: When microbial control is evident, add 11 oz. of this product per 10,000 gallons of water in the system to obtain a 1 ppm residual of this initial dose when half (or 1/3, 1/4, or 1/5) of the water in the system has been lost by blowdown. Badly fouled systems must be cleaned before treatment is begun.

CONTINUOUS FEED METHOD - Initial Dose: When system is not noticeably fouled, apply 52 to 104 oz. of this product per 10,000 gallons of water in available chlorine.

Subsequent Doses: Maintain this treatment level by starting a continuous feed of 1 oz. of this product per 1,000 gallons of water lost by blowdown or fouled systems must be cleaned before treatment is begun.

HOUSEHOLD LAUNDRY SANITIZERS

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

IN WASHING SUDS - Thoroughly mix 2 oz. of this product to 10 gallons of wash water containing clothes to provide 200 ppm available chlorine. Detergent and start the wash/rinse cycle.

NON-FOOD CONTACT SURFACES

1. of this product with 10 gallons of water to provide approximately 200 ppm available chlorine by surfaces thoroughly with the sanitizing solution, maintaining contact with the sanitizer for at least 2 minutes overnight.

2. in an immersion tank, 2 oz. of this product with 10 gallons of water to provide approximately 200 ppm available chlorine by immersing equipment in the sanitizing solution for at least 2 minutes and allow the sanitizer to remain on the surface for at least 2 hours.

3. available chlorine sanitizing solution of sufficient size by thoroughly mixing the product in a ratio of 2 oz. of this product with 10 gallons of water to provide approximately 200 ppm available chlorine by immersing equipment in the sanitizing solution for at least 2 minutes and allow the sanitizer to remain on the surface for at least 2 hours.

POROUS NON-FOOD CONTACT SURFACES

1. of this product with 10 gallons of water to provide approximately 600 ppm available chlorine by surfaces thoroughly with the disinfecting solution, maintaining contact with the solution for at least 2 minutes overnight.

2. in an immersion tank, 6 oz. of this product with 10 gallons of water to provide approximately 600 ppm available chlorine by immersing equipment in the disinfecting solution for at least 10 minutes and allow the sanitizer to remain on the surface for at least 2 hours.

ROUS NON-FOOD CONTACT SURFACES

1. of this product with 10 gallons of water to provide approximately 600 ppm available chlorine by surfaces thoroughly with the sanitizing solution, maintaining contact with the sanitizer for at least 2 minutes. Do not rinse.

2. in an immersion tank, 6 oz. of this product with 10 gallons of water to provide approximately 600 ppm available chlorine by immersing equipment in the sanitizing solution for at least 2 minutes and allow the sanitizer to remain on the surface for at least 2 hours.

3. with 600 ppm available chlorine by thoroughly mixing the product in a ratio of 6 oz. of this product with 10 gallons of water to provide approximately 600 ppm available chlorine by immersing equipment in the sanitizing solution for at least 2 minutes and allow the sanitizer to remain on the surface for at least 2 hours.

WATER EFFLUENT TREATMENT

1. total number of coliform bacteria and/or fecal coliform bacteria, as determined by the Most Probable Number method permitted by the controlling regulatory jurisdiction.

2. is obtained when the chlorine residual is 0.5 ppm after 15 minutes contact. Although the chlorine residual with bacterial kill must be emphasized, the MPN of the effluent, which is directly related to the chlorine residual, should be considered an operating standard valid only to the extent that the chlorine residual is maintained.

3. thoroughly and completely flush mixed to assure reaction with every chemically active, soluble and insoluble material.

4. in response to fluctuating chlorine demand to maintain a predetermined, desirable chlorine level. 15 to 30 minute contact time. A reasonable average of residual chlorine is 0.5 ppm after 15 minutes contact time.

WASTEWATER TREATMENT

1. solution at a location which will allow complete mixing. Prepare this solution by mixing 10 to 100 oz of this product with 100 gallons of water.

2. to a depth of 1 foot above filter sand, and add 50 oz. of product per 20 square feet evenly over the top of the filter. Wait for 4 to 6 hours before completely draining and backwashing filter.

DRINKING WATER

1. Begin feeding this solution with a hypochlorinator until a free available chlorine residual of at least 2 ppm is obtained. Check water frequently with a chlorine test kit. Bacteriological sampling must be conducted at a regular interval. Contact your local Health Department for further details.

2. (flush) wash the interior of casing (lining) with a 100 ppm available chlorine solution using a siphon into 10 gallons of water. After covering the well, pour the sanitizing solution into the well through both the casing and the casing annulus. Drop pipeline into well, start pump and pump water until strong odor of chlorine in water has been removed from the water. Consult your local Health Department for further details.

3. pump until water is as free from turbidity as possible. Pour a 100 ppm available chlorine sanitizing solution into 10 gallons of water. Add 5 to 10 gallons of clean chlorinated water to the well in 10 gallon increments. Drop pipeline into well, start pump and pump water until strong odor of chlorine has been removed from the water. Deep wells with high water table into the well. Consult your local Health Department for further details.

4. generally do not require disinfection. If analyses indicate persistent contamination, the well should be disinfected.

5. available water can be made potable by using this product. Prior to addition of the sanitizer, remove all of the chlorine, chlorinated water to a clean container and add 1 drop of this product to 20 gallons of water should have a slight chlorine odor. If not, repeat dosage and allow the water to stand an additional 15 minutes before several times.

PUBLIC WATER SYSTEMS

ALGAE CONTROL IN RESERVOIRS -Hypochlorinates 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 each 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 20 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 place in service.

NEW FILTER SAND -Apply 50 oz. of this product for each 150 to 200 cubic feet of sand. The action of the product dissolving as the water passes through the bed will aid in sanitizing the new sand.

NEW WELLS -Flush the casing with a 50 ppm available chlorine solution of water containing 5 oz. of this product for each 100 gallons of water. The solution should be pumped or led 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. Bacteriological examination of the water will indicate whether further treatment is necessary.

EXISTING EQUIPMENT -Remove equipment from service, and thoroughly clean surfaces of all physical soil. Sanitize by placing 21 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 return to service. If the previous treatment is not practical, surfaces may be sprayed with a solution containing 5 oz. of this product for each 5 gallons of water (approximately 1000 ppm available chlorine). After drying, flush with water and return to service.

EMERGENCY DISINFECTION AFTER FLOODS

WELLS -Thoroughly flush contaminated casing with a 500 ppm available chlorine solution. Prepare this solution by mixing 5 oz. of this product with 10 gallons of water. Backwash the well to increase yield and reduce turbidity, adding sufficient disinfecting 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 disinfecting solution to produce a 50 ppm available chlorine residual. Against the well water for several hours and take a representative water sample. Re-test well if water samples are biologically unacceptable.

RESERVOIRS -In case of contamination by overflowing streams, establish hypochlorinating stations upstream of the reservoir. Chlorinate the inlet water and the entire reservoir reservoir to obtain a 0.2 ppm available chlorine residual in all parts of the reservoir.

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

FILTERS -When the sand filter needs replacement, apply 80 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 80 oz. per 20 square feet. 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 50 oz. of this product per each 50 square feet, allowing the water to stand at a depth of 1 foot above the filter sand. After 30 minutes, drain water to the level of the filter. After 4 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.

EMERGENCY DISINFECTION AFTER FIRES

CROSS CONNECTIONS OR EMERGENCY CONNECTIONS -Hypochlorinate 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.

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 30 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 at least 5 minutes. This solution is made by mixing 5 oz. of this product for each 10 gallons of water. During the filling of a central hose, dose with sufficient amounts of this product to provide at least a 0.2 ppm chlorine residual. Use a chlorine test kit.

EMERGENCY DISINFECTION AFTER MAIN BREAKS

MAINS -Before assembly of the repaired section, flush out mud and soil. Permit a water flow 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.

COOLING TOWER AND EVAPORATIVE CONDENSER WATER

SLUG FEED METHOD -Initial Dose: When system is noticeably fouled, apply 52 to 104 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 Doses: When microbial control is evident, add 11 oz. of this product per 10,000 gallons of water in the system daily, or as needed to maintain control and keep the chlorine residual at 1 ppm. Badly fouled systems must be cleaned before treatment is begun.

INTERMITTENT FEED METHOD -Initial Dose: When system is noticeably fouled, apply 52 to 104 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 blowdown.

Subsequent Doses: When microbial control is evident, add 11 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 blowdown. Badly fouled systems must be cleaned before treatment is begun.

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

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

HOUSEHOLD LAUNDRY SANITIZERS

DISINFECTING SLUGS -Thoroughly mix 2 oz. of this product to 10 gallons of wash water to provide 200 ppm available chlorine. Wait 15 minutes, then add soap or detergent. Immerse laundry for at least 11 minutes prior to starting the wash/rinse cycle.

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

COMMERCIAL LAUNDRY SANITIZERS

1. Wet fabrics or clothes should be spun dry prior to sanitization. Thoroughly mix 2 oz. of this product with 10 gallons of water to yield 200 ppm available chlorine, add the solution into the process prior to washing fabric/clothes in the regular wash cycle with a good detergent. Test the level of available chlorine. Add more of this product if the available chlorine level has dropped below 200 ppm.

FARM PREMISES

1. Remove all animals, poultry, and feed from premises, vehicles, and enclosures. Remove all litter and manure from floors, walls and surfaces of barns, pens, coops or houses by animals or poultry. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or disinfectant, separate 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 dissolving 10 gallons of water. Immerse all floors, ropes and other types of equipment used in handling and restraining animals or poultry, as well as the cleaned 1 remaining litter and manure. Ventilate buildings, pens, coops, and other closed spaces. Do not have livestock or poultry or employ equipment until chlorine racks, troughs, troughs, automatic feeders, fountains and waterers must be rinsed with potable water before reuse.

PULP AND PAPER MILL PROCESS WATER SYSTEMS

SLUG FEED METHOD -Initial Dose: When system is noticeably fouled, apply 52 to 104 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 Doses: When microbial control is evident, add 11 oz. of this product per 10,000 gallons of water in the system daily, or as needed to maintain control and keep the chlorine residual at 1 ppm. Badly fouled systems must be cleaned before treatment is begun.

INTERMITTENT FEED METHOD -Initial Dose: When system is noticeably fouled, apply 52 to 104 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 blowdown.

Subsequent Doses: When microbial control is evident, add 11 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 blowdown. Badly fouled systems must be cleaned before treatment is begun.

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

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

AGRICULTURAL USES

POST-HARVEST PROTECTION -Potatoes can be sanitized after cleaning and prior to storage by spraying with a sanitizing solution at a level of 1 gal per 1000 gallons of water. Apply 52 to 104 oz. of this product to 2 gallons of water to obtain 500 ppm available chlorine.

BEE CELLS AND BEE BOARDS -Not Approved for Use in California! Disinfect bee cells and bee boards by immersion in a solution containing 500 ppm available chlorine. Allow cells to drain for 2 minutes and dry for 4 to 5 hours or until no odor is detectable. This solution is made by thoroughly mixing 1 gallon of water. The bee boards can be disinfected by spraying with a 0.1 ppm solution until all surfaces are thoroughly wet. Allow the boards to dry until all chlorine odor is gone.

EGG SANITIZATION -Thoroughly clean all eggs. Thoroughly mix 2 oz. of this product with 10 gallons of warm water to produce a 200 ppm available chlorine solution. Temperature should not exceed 130 F. Spray the warm water over so that the eggs are thoroughly wetted. Allow the eggs to thoroughly dry before using or to be stored. The solution should not be reused to sanitize eggs.

FRUIT & VEGETABLE WASHING -Thoroughly clean all fruits and vegetables in a wash tank. Thoroughly mix 5 oz. of this product in 200 gallons of water to provide 200 ppm available chlorine. After draining the fruit, submerge fruit or vegetables for 2 minutes in a second wash tank containing the available chlorine sanitizing solution prior to packaging. Rinse fruit with potable water only prior to packaging.

AQUACULTURAL USES

FISH PONDS -Remove fish from ponds prior to treatment. Thoroughly mix 100 oz. of this product to 10,000 gallons of water to obtain 10 ppm available chlorine. Apply the solution to the pond after 5 minutes. Return fish to pond after the available chlorine level reaches zero.

FISH POND EQUIPMENT -Thoroughly clean all equipment prior to treatment. Thoroughly mix 2 oz. of this product to 10 gallons of water to obtain 200 ppm available chlorine. Immerse equipment in the solution for 10 minutes. Rinse equipment with potable water only prior to packaging.

MAINE LOBSTER PONDS -Not Approved for Use in California! Remove lobsters, seaweed, etc. from ponds prior to treatment. Drain the pond. Thoroughly clean the pond to obtain a level of 500 ppm available chlorine. Apply so that all barnacles, algae, rock and clam are treated with product. Permit high water to stand for 2 to 3 days until the available chlorine level reaches zero. Open gates and allow two tidal cycles to flush the pond before return to service.

CONTROL OF SCAVENGERS IN FISH HATCHERY PONDS -Prepare a solution containing 200 ppm of available chlorine by mixing 2 oz. of product with 10 gallons of water. Apply the solution to the pond. Repeat if necessary. Do not put disinfected fish back into reddish ponds until chlorine residual is dropped to 0 ppm, as determined by a chlorine test kit.

Sanitization of Dialysis Machines -Thoroughly mix 6 oz. of this product to 10 gallons of water to obtain 600 ppm available chlorine. Immerse the dialysis machine in the solution for 15 minutes at 20°C. Drain system of the sanitizing solution and thoroughly rinse the system with potable water. Rinse 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 multi-patient hemodialysis systems. This product has been shown to be an effective disinfectant and preservative when tested by AACC and EPA test methods. This product may not totally eliminate all vegetative microorganisms in hemodialysis machine and/or assembly, but can be relied upon to reduce the number of microorganisms to acceptable levels when used as directed. This product also includes bacteriological monitoring of the hemodialysis delivery system. This product is NOT recommended for use in hemodialysis or reverse osmosis systems.

Consult the guidelines for hemodialysis systems, which are available from Health Laboratories, CDC, Phoenix, AZ 85021.

ASPHALT OR WOOD ROOFS AND SIDINGS

1. To control fungus and mold, first remove all physical soil by brushing and washing with clean water, and apply a 500 ppm available chlorine solution. Use water and brush or spray rock siding. After 30 minutes, treat by rinsing with clean water.

BOAT BOTTOMS

1. To control slime on boat bottoms, sling a plastic tarp under hull, retaining enough water to cover the fouled bottom area, but not allowing water to enter a certain approximately 500 gallons of water for a 14 foot boat. Add 18 oz. of this product to this water to obtain a 30 ppm available chlorine concentration. Repeat if necessary. Do not discharge the solution until the free chlorine level has dropped to 0 ppm, as determined by a swimming pool test kit.

ARTIFICIAL SAND BEACHES

1. To sanitize the sand, spray a 500 ppm available chlorine solution containing 5 oz. of this product per 10 gallons of water at frequent intervals. Small areas can be treated by hand.

PUBLIC WATER SYSTEMS

GAE CONTROL IN RESERVOIRS - Hypochlorite streams feeding the reservoir. Suitable feeding points should be selected on each stream at least 50 yards upstream from the ris of entry into the reservoir.

LIENS - 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 dust 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 e. When chlorination is completed, the system must be flushed free of all heavily chlorinated water.

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

W FILTER SAND - Apply 80 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 slitting the new sand.

W WELLS - Flush the casing with a 50 ppm available chlorine solution of water containing 5 oz. of this product for each 100 gallons of water. The solution should be pumped or 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 water sample is obtained. Bacterial examination of the water will indicate whether further treatment is necessary.

ISTING EQUIPMENT - Remove equipment from service, and thoroughly clean surfaces of all physical soil. Sanitize by placing 21 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 return to service. If the previous treatment is not practical, surfaces may be sprayed with a solution containing 5 oz. of this product for each 5 gallons of water (approximately 1000 ppm available chlorine). After drying, flush with water and return to service.

EMERGENCY DISINFECTION AFTER FLOODS

ILLS - Thoroughly flush contaminated casing with a 500 ppm available chlorine solution. Prepare this solution by mixing 5 oz. of this product with 10 gallons of water. Backwash 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. After the turbidity has been reduced and the casing has been washed, add sufficient chlorinating solution to produce a 50 ppm available chlorine residual. Agitate the well water for 24 hours and take a representative water sample. Re-test well if water samples are biologically unacceptable.

SERVOIRS - In case of contamination by overflowing streams, establish hypochlorinating stations upstream of the reservoir. Chlorinate the inlet water until the entire reservoir attains 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 stream to obtain a 0.2 ppm available chlorine residual in all parts of the reservoir.

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

TERS - When the sand filter needs replacement, apply 80 oz. of this product for each 150 to 200 cubic feet of sand. When the filter is severely contaminated, additional product old be distributed over the surface at the rate of 80 oz. per 20 square feet. Water should stand at a depth of 1 foot above the surface of the filter bed for 4 to 24 hours. When filter s can be backwashed to mud and silt, apply 80 oz. of this product per each 50 square feet, allowing the water to stand at a depth of 1 foot above the filter sand. After 30 minutes, drain and return to service. After 4 to 6 hours, drain and proceed with normal backwashing.

TRIBUTION SYSTEM - Flush treated or replaced section with water. Establish a hypochlorinating station and apply sufficient product until a consistent available chlorine dual of at least 10 ppm remains after a 24 hour retention time. Use a chlorine test kit.

EMERGENCY DISINFECTION AFTER FIRES

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

EMERGENCY DISINFECTION AFTER DROUGHTS

PLEMENTARY 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 ppm after a 20 minute contact time. Use a chlorine test kit.

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

EMERGENCY DISINFECTION AFTER MAIN BREAKS

INS - Before assembly of the repaired section, flush out mud and soil. Permit a water flow at least 2.5 feet per minute to continue under pressure while injecting this product by use 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 iration is completed, the system must be flushed free of all heavily chlorinated water.

COOLING TOWER AND EVAPORATIVE CONDENSER WATER

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

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

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

sequent Doses: When microbial control is evident, add 11 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) is initial dose when half (or 1/3, 1/4, or 1/5) of the water in the system has been lost by blowdown. Bodily fouled systems must be cleaned before treatment is begun.

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

sequent Doses: Maintain this treatment level by starting a continuous feed of 1 oz. of this product per 1,000 gallons of water lost by blowdown to maintain a 1 ppm residual. Bodily ed systems must be cleaned before treatment is begun.

HOUSEHOLD LAUNDRY SANITIZERS

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

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

COMMERCIAL LAUNDRY SANITIZERS

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

FARM PREMISES

Remove all animals, poultry, and feed from premises, vehicles, and enclosures. Remove all litter and manure from floors, walls and surfaces of barns, pens, stalls, crates, and other facilities occupied or frequented 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, sanitize all surfaces with a solution of at least 1000 ppm available chlorine for a period of 10 minutes. A 1000 ppm solution can be made by thoroughly mixing 11 oz. of this product with 10 gallons of water. Immerse all hollow, round and other types of equipment used in handling and restraining animals or poultry, as well as the cleaned racks, shovels, and scrapers used for removing litter and manure. Wash all building, cart, tools, 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,料stalls and waterers must be rinsed with potable water before use.

PULP AND PAPER MILL PROCESS WATER SYSTEMS

BLUG FEED METHOD - Initial Dose: When system is noticeably fouled, apply 52 to 104 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.

sequent Doses: When microbial control is evident, add 11 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. Bodily fouled systems must be cleaned before treatment is begun.

INTERMITTENT FEED METHOD - Initial Dose: When system is noticeably fouled, apply 52 to 104 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 blowdown.

sequent Doses: When microbial control is evident, add 11 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 blowdown. Bodily fouled systems must be cleaned before treatment is begun.

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

sequent Doses: Maintain this treatment level by starting a continuous feed of 1 oz. of this product per 1,000 gallons of water lost by blowdown to maintain a 1 ppm residual. Bodily fouled systems must be cleaned before treatment is begun.

AGRICULTURAL USES

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

BEE CELLS AND BEE BOARDS - Not Approved for Use in California! 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 as used in colonies or can be discarded. This solution is made by thoroughly mixing 1 tsp. of this product to 100 gallons of water. The bees become disoriented by spraying with a 0.1 ppm solution until all surfaces are thoroughly wet. Allow the disorientation to dry until all chlorine odor has dissipated.

FOOD EGG SANITIZATION - Thoroughly clean all eggs. Thoroughly mix 2 oz. of this product with 10 gallons of 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 packing. Do not apply a potable water rinse. The solution should not be re-used to sanitize eggs.

FRUIT & VEGETABLE WASHING - Thoroughly clean all fruits and vegetables in a wash tank. Thoroughly mix 5 oz. of this product in 200 gallons of water to make a sanitizing solution of 25 ppm available chlorine. After draining the tank, submerge fruit or vegetables for 2 minutes in a second wash tank containing the recirculating sanitizing solution. Spray these vegetables with the sanitizing solution prior to packing. Rinse fruit with potable water only prior to packing.

AQUACULTURAL USES

FISH PONDS - Remove fish from ponds prior to treatment. Thoroughly mix 100 oz. of this product to 10,000 gallons of water to obtain 10 ppm available chlorine. Add more product to the water if the available chlorine level is below 1 ppm after 5 minutes. Return fish to pond after the available chlorine level reaches zero.

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

MAINE LOBSTER PONDS - Not Approved for Use in California! Remove lobsters, seaweed, etc. from ponds prior to treatment. Drain the pond. Thoroughly mix 6,200 oz. of this product to 10,000 gallons of water to obtain at least 500 ppm available chlorine. Apply so that all burrows, rocks, mud 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 two tidal cycles to flush the pond before returning lobsters to pond.

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

SANITIZATION OF DIALYSIS MACHINES

Flush equipment thoroughly with water prior to using this product. Thoroughly mix 6 oz. of this product to 10 gallons of water to obtain at least 600 ppm available chlorine. Immediately use this product in the hemodialysis 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 solution. Rinable must be inoculated with a suitable test kit to insure that no available chlorine remains in the system.

This product is recommended for decontaminating single and multi-patient hemodialysis systems. This product has been shown to be an effective disinfectant (pneumococci, hemolytic, bacteriophage, and pseudomonas) when tested by AQC and EPA test methods. This product may not fully eliminate all negative microorganisms in hemodialysis delivery systems due to their concentration and/or assembly but can be used to reduce the number of microorganisms to acceptable levels when used as directed. This product is not used in a disinfection program which includes bacteriological monitoring of the hemodialysis delivery system. This product is NOT recommended for use in hemodialysis or reverse osmosis (RO) membranes.

Consult the guidelines for hemodialysis systems, which are available from Hospalco Laboratories, CDC, Phoenix, AZ 85021.

ASPHALT OR WOOD ROOFS AND SIDINGS

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

BOAT BOTTOMS

To control slime on boat bottoms, sling a plastic tarp under boat, retaining enough water to cover the treated 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 18 oz. of this product to this water to obtain a 35 ppm available chlorine concentration. Leave immersed for 8 to 12 hours. Repeat if necessary. Do not discharge the solution until the free chlorine level has dropped to 0 ppm, as determined by a swimming pool test kit.

ARTIFICIAL SAND BEACHES

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