

70271-13

12/9/2010

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

DEC - 9 2010

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

Christina Griffin  
Agent for KIK International, Inc.  
Delta Analytical Corporation  
12510 Prosperity Drive  
Suite 160  
Silver Spring, MD 20904

**FILE COPY**

Subject: PRIA (Decision # 431929)  
KIK International Inc.  
Pure Bright Germicidal Ultra Bleach  
EPA Reg. No. 70271-13  
Application Dated: April 13, 2010  
Receipt Date: April 13, 2010

Dear Ms. Griffin:

This amendment submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, to add additional claims, is accepted with conditions:

**Claims**

1. Clostridium difficile (spore form)
2. Methicillin Resistant Staphylococcus Aureus (MRSA)
3. Influenza A (H1N1) virus
4. Human Immunodeficiency virus type 1
5. Hepatitis B virus
6. Hepatitis C virus

**Standard Test Methods**

1. Sanitizer for Inanimate Non-Food Contact Surfaces (Staphylococcus aureus and Enterobacter aerogenes)
2. Laundry Sanitizers (Klebsiella pneumoniae and Staphylococcus aureus)

**Conditions:**

1. The claim "Kills the source of mold allergen" is unacceptable and has been removed from page 4 of the label.

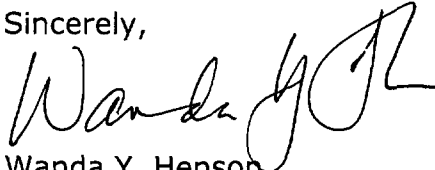
2022

2. The heightened efficacy claim "Powerful Germ Killer" is unacceptable and has been removed from the label.

3. The comparison claim "The Smart Way to Disinfect" is unacceptable and has been removed from the label.

A stamped copy of the label is enclosed for your records. Submit 1 copy of your final printed labeling before distributing or selling the product bearing the revised labeling. If you have any questions regarding this letter, please contact me either by phone at (703) 308-6345 or email at [Henson.Wanda@epa.gov](mailto:Henson.Wanda@epa.gov).

Sincerely,



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

Enclosures: (Stamped Label)

**PURE BRIGHT™**

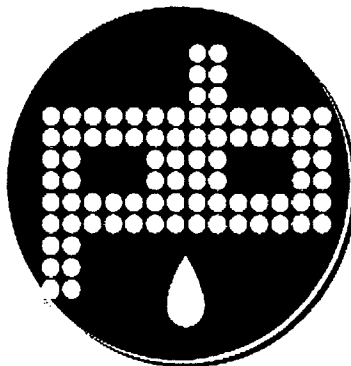
**GERMICIDAL  
ULTRA  
BLEACH**

**Active Ingredient:**  
Sodium Hypochlorite.....6.0%  
**Other Ingredients:**.....94.0%  
**TOTAL:**.....100.0%  
Yields 5.7% Available Chlorine

**KEEP OUT OF REACH OF CHILDREN  
DANGER [Corrosive]**

**FIRST AID:** Call a poison control center [(1-800-222-1222)] or doctor for treatment advice. Have the product container or label with you when calling a Poison Control Center or doctor, or going for treatment. **If in eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. **If on skin or clothing:** Take off contaminated clothing. Rinse skin with plenty of water for 15-20 minutes. **If swallowed:** Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. **Note to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage.

See side [or back] panel for additional precautionary labeling. [additional precautions]



NET CONTENTS \_\_\_\_\_

BATCH CODE \_\_\_\_\_

Manufactured by:

KIK International, Inc.  
33 Macintosh Blvd.  
Concord, Ontario L4K4L5

Santa Fe Springs CA 90670	EPA Est No. 70271-CA-2
Denver CO 80207	EPA Est No. 70271-CO-1
Auburndale FL 33823	EPA Est No. 70271-FL-1
Hampton GA 30228	EPA Est No. 70271-GA-1
Houston TX 77054	EPA Est No. 70271-TX-1
Salem VA 24153	EPA Est No. 70271-VA-1
Tacoma WA 98421	EPA Est No. 70271-WA-1
Concord ON CN L4K4K5	EPA Est No. 70271-CAN-1
	EPA Est. No. 55852-IL-1

[actual establishment shown in code above or below label printed on bottle]

EPA Reg. No. 70271-13

**ACCEPTED  
with COMMENTS  
in EPA Letter Dated:**

**DEC - 9 2010**

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act as  
amended, for the pesticide,  
registered under EPA Reg. No. **70271-13**

3022

**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. Wear safety glasses and rubber gloves when handling this product. Wash after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Avoid breathing vapors. Vacate poorly ventilated areas as soon as possible. Do not return until strong odors have dissipated.

*[In accordance with PR notice 95-1, the complete Environmental Hazards statement is only required for containers 5 gallons and larger; use only the heading and first sentence for smaller than 5 gallons]*

**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 in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

**Physical and Chemical Hazards**

Strong oxidizer. Flush drains before and after use. Do not use or mix with other household chemicals, such as toilet bowl cleaners, rust removers, acid or ammonia containing products. To do so will release hazardous gasses. Prolonged contact with metal may cause pitting or discoloration.

**STORAGE AND DISPOSAL**

Do not contaminate food or feed by storage, disposal or cleaning of equipment. Store in a cool, dry area away from direct sunlight and heat to avoid deterioration. In case of spill, flood area with large quantities of water. Product or rinsates that cannot be used should be diluted with water before disposal in a sanitary sewer. **Container Disposal:** Non-refillable container. Do not re-use or refill this container. Offer for recycling if available or place in trash collection.

**[List of Approved Organisms:]**

[ATCC numbers are required on the master label, but are not required to be listed on the production label]

This product, when used as directed on hard, non-porous surfaces, is effective against the following:

**FUNGICIDAL**

- *Trichophyton mentagrophytes* (Athlete's foot fungus) [ATCC 9533]
- *Aspergillus brasiliensis* (mildew) [ATCC 16404]

**BACTERICIDAL**

- *Escherichia coli* O157:H7 (E. coli) [ATCC 35150]
- *Pseudomonas aeruginosa* (pseudomonas) [ATCC 15442]
- *Salmonella enterica* (salmonella) [ATCC 10708]
- *Shigella dysenteriae* [ATCC 13313]
- *Staphylococcus aureus* (staph) [ATCC 6538]
- Methicillin Resistant *Staphylococcus aureus* (MRSA) [ATCC 33592]
- *Clostridium difficile* spore (C. diff) [ # ] [ATCC 700792]
- *Streptococcus pyogenes* (strep) [ATCC 12344]

**VIRUCIDAL**

- Adenovirus type 2 [ATCC VR-846]
- Avian influenza A virus (Avian Flu virus) [ATCC VR-2072]
- Canine parvovirus [ATCC VR-2017]
- Cytomegalovirus [ATCC VR-538]
- Feline panleukopenia virus (Parvovirus) [ATCC VR-648]
- Hepatitis A virus [ATCC VR-1358, strain M-175]
- Hepatitis B virus (HBV) [ \* ] [7/31/07 strain duck Hepatitis B from Hepadnavirus Testing, Inc.]
- Hepatitis C virus (HCV) [ \* ] [Oregon C24v-genotype 1 Bovine Viral Diarrhea Virus]
- Herpes simplex virus type 1 (herpes) [ATCC VR-733]
- Herpes simplex virus type 2 (herpes) [ATCC VR-734]
- Human immunodeficiency virus type 1 (HIV-1) [ \* ] [HTLV-III<sub>B</sub> strain]
- H1N1 Influenza A virus [ATCC VR-1469, Strain A/PR/8/34]
- Influenza A virus (Strain Hong Kong) [ATCC VR-544]
- Poliovirus type 1 [ATCC VR-1000]
- Respiratory syncytial virus [ATCC VR-26]
- Rhinovirus type 37 (viruses that cause colds and flu) [ATCC VR-1147]
- Rotavirus [obtained from Univ. Ottawa, Ontario, Canada, Strain WA]

**Non-Food Contact Sanitizer**

- *Staphylococcus aureus* (staph) [ATCC 6538]
- *Enterobacter aerogenes* [ATCC 13048]

**Laundry Sanitizers**

- *Staphylococcus aureus* (staph) [ATCC 6538]
- *Klebsiella pneumoniae* [ATCC 4352]

[\* If HIV-1, HBV, or HCV claim is used, HIV-1, HBV, HCV directions must be included on the printed label.]

[# If *Clostridium difficile* claim is used, *Clostridium difficile* directions must be included on the printed label.]

**Optional Antimicrobial Claims:** [Note: In accordance with EPA 2005 "Germs" policy, asterisk next to "germs" is optional because all three major classes of organisms are approved.]  
[Choose from the following claims as appropriate, location is optional.]

- Antibacterial
- Antifungal
- Aids in the reduction of cross-contamination between treated surfaces
- Bactericide • Bactericidal
- Broad Spectrum Disinfectant
- Cleans [And Disinfects]
- Disinfectant • Disinfecting • Disinfects
- Disinfecting & Deodorizing
- Disinfects [And] [Sanitizes] [And Deodorizes] [And Cleans] [Around The House]
- Disinfects [,Sanitizes] [,Eliminates Mildew] [And Deodorizes]
- Disinfect, Deodorize [and Kill 99.9% Of Germs[\*]] [On Counters] In [Sinks] [Showers] [Bathtubs] [and] [On Vinyl and Glazed Tile Floor]
- Eliminates Odors
- Fights Germs[\*] [And Odors]
- Fungicide • Fungicidal
- Germicide • Germicidal
- Gets Rid Of Germs[\*] [and/or Dirt]
- [Helps] Prevent[s] The Spread Of The Cold And Flu Virus‡‡ [In Your Home] [and/or Office] from treated surfaces
- Home Disinfectant Essential
- Hospital Disinfectant

[Note: All "Kills" claims below may start with "Also" (as in "Also kills flu...)]

Kills and prevents cross contamination of Germ[\*]

- Kills Athlete's Foot Fungus †† [In 5 Minutes]
- Kills [or Eliminates] [or Removes] [99.9% Of] [Common Household] Germs[\*] [including] [list any approved organism]
- Kills [or Eliminates] [or Removes] [99.9% Of] [Germs[\*]] [or Bacteria\*\*] [or Viruses\*\*\*] [Commonly Found In] [Bathrooms] [or Homes] [or Households] [or Kitchens] [or Offices]
- Kills [Household] Mold [And Mildew] †
- Kills 99.9% of Germs in your Laundry ‡‡‡
- Kills 99.9% of bacteria\*\* that can cause food-borne illnesses
- Kills Avian Influenza A virus [On Pre-Cleaned [Environmental] Surfaces]
- Kills [Eliminates] Flu Virus ‡
- Kills [Eliminates] MRSA †††
- Kills Germs and Removes Odors
- Kills Viruses That Cause Colds And Flu‡‡
- Kills Virus That Causes The Flu‡
- Kills H1N1 Influenza A virus
- Kills Pandemic 2009 H1N1 Influenza A virus.
- Kills *Clostridium difficile* [C. diff] On Hard Non-Porous [Environmental] Surfaces
- Kills HIV-1 On Hard Non-Porous [Environmental] Surfaces
- Meets OSHA Bloodborne Pathogen Standards
- Mildewcide • Mildewcidal • Mildewstat[ic]

- Protection Against Germs[\*]
- Pseudomonacidal
- Reduces exposure to Methicillin Resistant *Staphylococcus aureus* (MRSA) from treated surfaces
- Removes Stains and Disinfects
- Sani-Clean
- Sanitizing • Sanitizer • Sanitizes
- Streptocidal
- Staphylocidal

[This Product] meets AOAC [Use-Dilution test] efficacy standards [for hospital disinfectants].  
 This Product Has Demonstrated Effectiveness Against Influenza A Virus And Is Expected To Inactivate All Influenza A Viruses Including Pandemic 2009 H1N1 Influenza A Virus.  
 This Product Has Demonstrated Effectiveness Against (Influenza A Virus Tested And Listed On The Label) And Is Expected To Inactivate All Influenza A Viruses Including Pandemic 2009 H1N1 (Formerly Called Swine Flu)."

Virucide • Virucidal

[SYMBOLS connect to the corresponding symbol in the claims above. Different symbols may be used on printed label. All organisms do not have to be listed on the printed labels, but listing must be consistent with EPA guidance requirements for germs claims]

[\*] *Staphylococcus aureus*, Methicillin Resistant *Staphylococcus aureus* (MRSA), *Streptococcus pyogenes*, *Salmonella enterica*, *Trichophyton mentagrophytes* (Athlete's foot fungus), *Escherichia coli* O157:H7, Influenza A virus, H1N1 Influenza A virus, Rhinovirus type 37, Avian influenza A virus (Avian Flu), *Aspergillus brasiliensis* (mildew), *Pseudomonas aeruginosa*, *Shigella dysenteriae*, Adenovirus type 2, Canine parvovirus, Cytomegalovirus, Feline panleukopenia virus (Parvovirus), Hepatitis A virus, Herpes simplex virus type 1, Herpes simplex virus type 2, Poliovirus type 1, Respiratory syncytial virus, Rotavirus, HIV-1, HBV (Hepatitis B Virus), HCV (Hepatitis C Virus), *Clostridium difficile* (*C. diff*)

\*\* *Escherichia coli* O157:H7, *Pseudomonas aeruginosa*, *Salmonella enterica*, *Staphylococcus aureus* (staph), Methicillin Resistant *Staphylococcus aureus* (MRSA), *Streptococcus pyogenes* (strep), *Shigella dysenteriae*, *Clostridium difficile* (*C. diff*)

\*\*\* Adenovirus type 2, Avian influenza A virus (Avian Flu), Canine parvovirus, Cytomegalovirus, Feline panleukopenia virus (Parvovirus), Hepatitis A virus, HBV (Hepatitis B virus), HCV (Hepatitis C virus), Herpes simplex virus type 1, Herpes simplex virus type 2, Poliovirus type, Respiratory syncytial virus, Rotavirus, Influenza A virus, H1N1 Influenza A virus, Rhinovirus type 37

† *Trichophyton mentagrophytes* (Athlete's foot fungus) & *Aspergillus brasiliensis* (mildew)

⊕ *Aspergillus brasiliensis* (mildew)

†† *Trichophyton mentagrophytes* (Athlete's foot fungus)

††† Methicillin Resistant *Staphylococcus aureus* (MRSA)

‡ Influenza A virus –and/or- H1N1 Influenza A virus

‡‡ Influenza A virus –and/or- H1N1 Influenza A virus & Rhinovirus type 37

‡‡‡ Sanitizes: *Staphylococcus aureus* (staph) & *Klebsiella pneumoniae*

**GENERAL NON-PESTICIDAL CLAIMS AND INFORMATION:**

[A more] sustainable solution for the environment

Avoid Prolonged Contact With Metal Since Corrosion Or Discoloration May Occur

Always Dilute In Strict Accordance With The Label Directions

Always Mix This Product Strictly In Accordance With Label Instructions

Anti-Allergen (non-living)

Bleaches Out Tough Stains

Bleach Works

Boosts Cold Water Cleaning Power

Boosts Cold Water Washing Power

Boosts Laundry Cleaning Power

Brightens Laundry

Check To Make Sure Bottle Is Always Tightly Capped

Cleans [and Deodorizes] [Around The House]

Cleaning booster (even) on cold water washing

Clean Smell[ing]

Clean[s] White[s]

Cold Water Booster

Commercial/Institutional Use

[Compatible] For Use In [High Efficiency] [or HE] Washing Machines

Contains No Phosphorus

Deodorizer • Deodorizes • Deodorize

Do Not Break Open - To Be Sold As A [Two] [or Three] [or Four] Pack

Do Not Drop

Do Not Use This [Product] [or Bleach] At Full Strength For Cleaning [Surfaces]

Do not use on Acetate, Leather, Silk, Spandex or Wool, Mohair and non-fast colors.

Do Not Use This Product On Chipped Baked Enamel

Easier To Handle, Pour, and Store Than Before

Easy pour spout.

[Eliminates] [or Removes] Odors

Exercise Care In Handling

[Family] [or Giant] [or King] [or Value] Size  
 Fabric Friendly®  
 Fiber Friendly®  
 For [Use in] Standard [or Top Load] & HE [or Front Load] [Washing] Machines  
 For [Use in] HE [or Front Load] [Washing] Machines  
 For [Use in] Standard [or Top Load] [Washing] Machines  
 For A Clean[er], Fresh[er] Household & [and] Laundry  
 For odor-free laundry  
 For Cold Washing  
 Freshens  
 Gets Even Your Dirtiest Clothes White  
 Great For Cold Water [Cleaning]  
 Helps to maintain your HE machine  
 Helps remove odor causing residues in standard (top loading) & HE (or front loading) Washing Machines  
 Helps remove odor causing residues in HE (or front loading) washing machine(s)  
 HE plus 4 in 1 (or 4 in 1) ([i.e.] Cold water washing, Fabric protection, Anti allergen (non-living) and Deodorization)  
 [High Efficiency] [or HE] [Compatible]  
 In-wash booster  
 Just As Safe On Bleachable Fabrics As Before  
 Keep Bottle[s] Upright and Tightly Capped  
 Keep Upright  
 Looks [and/or Smells] Clean  
 More Value [Than Before]  
 [Now][With] Fabric Protection  
 [Now][With] Fiber Protection  
 Proudly Made In [The USA] [North America]  
 Product Should Be Carried and Stored In An Upright Position To Avoid Spillage  
 Purest White  
 Recycle [Container] ♻️  
 Recyclable Container  
 Reduce Your Carbon Footprint. Buy Products [Made In The USA.] [Made In North America.]  
 Removes Non-living Allergens  
 Removes [Tough] Stains  
 Safe For All Washing Machines  
 Safe On Bleachable Fabrics  
 Safe on HE (or Front loading) Washing Machine  
 Sparkling White  
 Smaller Bottle Is Easier To Handle and Store Than Before  
 Smaller is better  
 Smaller bottle means easier to handle, pour and store  
 Splash Resistant With An Easy Open Seal  
 Takes less space in your cupboard  
 The Original All Purpose Cleaner  
 This Product Gets Even Your Dirtiest Clothes White  
 Ultra  
 Value Size [2] [or 3] [ or 4] Pack  
 Washing Machine Cleaner  
 Wear Gloves When Cleaning For Prolonged Periods  
 White Brite  
 Whitens [Bleachable Fabrics]  
 Whitens (and removes stains) even on cold water washing  
 Whitest Whites  
 Whitens [And Removes Stains]  
 Works in your maintenance cycle [too]  
 Works Even In Cold Water!





**FOR USE IN:**

*[The following headings may be placed above or in front of appropriate directions (e.g., Household Use in front of directions for dishes or floors)] [Use sites may be pluralized below]*

DAYCARE CENTER  
FOOD PROCESSING PLANT  
HOME  
HOUSEHOLD [USE]  
LOCKER ROOM  
NURSING HOME  
RESTROOM

DINER  
FOODSERVICE  
HOSPITAL  
INSTITUTION  
MEDICAL CLINIC  
OFFICE BUILDING  
SCHOOL

FARM – DAIRY [FARM]  
HEALTH CLUBS  
HOTEL  
KENNEL  
MEDICAL FACILITY  
RESTAURANT

**DIRECTIONS FOR USE**

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

*[Use one or more of the following laundry directions as appropriate:][All numbered directions may be used in paragraph form without numbers.]*

**LAUNDRY [BLEACHING]:**

Use to bleach white and colorfast Acrylics, Cotton, Nylon, Polyester, Rayon (test to be sure). Do not use on Acetate, Leather, Silk, Spandex or Wool, Mohair and [or] non-fast colors. Sort laundry by color and fabric. Separate whites from colors, light colors from dark colors.

**[Bleach Test:]** Before using, mix 1 ½ tablespoons of bleach with ¼ cup of water in a glass, rubber, glazed porcelain, or plastic container and test a small piece of fabric in a place that doesn't show. Test all colors, including trim. Let stand one minute, then blot dry. No color change means the article can be bleached safely.

**Top Loading [Machine]** - Before adding clothes, mix ¾ cup of bleach with water in top-loading 16 gallon machines or for large top loading automatics or larger heavily soiled loads, use 1¼ cup. Add clothes.

**Front Loading [Machine] [-or- HE Machine] [-or- High Efficiency Machine]-** Mix ½ cup bleach with water in front-loading [or HE] 8 gallon machines. If clothes are in machine the addition of bleach can cause damage. \*For HE Washers, add using the bleach dispenser following the machine manufacturer's instructions.

**TOP LOAD AUTOMATIC. . . . . ¾ CUP    LARGE TOP LOADING AUTOMATIC..... 1¼ CUP**  
**FRONT LOAD AUTOMATIC. . . . . ½ CUP    LARGE/HEAVY SOILED LOADS..... 1¼ CUP**

\*For HE Washers, add using the bleach dispenser following the machine manufacturer's instructions.

**LAUNDRY USE:**

1. Before adding clothes, mix ¾ cup of bleach with water in top-loading 16 gallon machines or mix ½ cup bleach with water in front-loading [or HE] 8 gallon machines. For large top loading automatics or larger heavily soiled loads, use 1¼ cup.
2. Add clothes.
3. Wash and rinse with usual cycles. **[DO NOT use on Acetate, Leather, Silk, Spandex, Wool, or Mohair and [or] non-fast colors.]**  
*[OR: additional format:]*

**LAUNDRY USE:**

1. Sort your laundry by color and fabric type.
2. Add ¾ cup of bleach and laundry detergent to wash water. For extra large machines, add 1 ¼ cup.
3. Add laundry.

**To Whiten Nylon and Other Synthetics that have turned yellow or grey:** 1 tablespoon of this product per gallon water. Soak clean fabric in solution for 15 to 20 minutes. Rinse well. Repeat if necessary.

**Today's permanent Press Fabrics are Bleachable** and need this product to get out stains and help prevent dirt build up. Wash with regular laundry as directed: Top-load automatics – ¾ cup per load. Wringer-type washers – ¾ cup per load. Front-load automatics 1/3 cup per load. Use this product with any good laundry soap or detergent. If your washer has an automatic bleach dispenser, follow washer directions. If not, add this product to wash water before laundry is put in. If laundry is put in before wash water then dilute this product in quart of water and add after machine has started agitating and fabrics are thoroughly wet.

**Machine Washing Directions:** [use at least once per month to keep your washing machine smelling fresh and clean.] If your HE machine has a cleaning cycle, check the manufacturer's directions before use. 1. Select the hot water setting. 2. Fill the bleach dispenser to the maximum level. 3. Run the cycle until it is completed. 4. Run a rinse cycle, manually to flush out any remaining bleach.

**[LAUNDRY SANITIZATION]** [Use one of the following as appropriate:]

[Add to one of the sets of bleaching directions above: If sanitization is desired, increase to 1 ¼ cup bleach for top loading, 2/3 cup for front load machines. Wash and rinse with usual cycles.]

**Laundering:** To bleach and sanitize white and colorfast cotton, linen, nylon, Dacron, Orlon, polyester, Dynel and rayon in washing machine: 1 ¼ cup of this product per load for conventional washing machine [16 gallon]; 2/3 cup for front load [8 gallon] automatic. Add to pre-soak, wash water. If clothes are in machine, dilute product with 1 quart of the wash water before adding.

**To Sanitize Laundry:** add 1 ¼ cup of this product per load for conventional washing machine [16 gallon]; 2/3 cup for front load [8 gallon] automatic. If clothes are in machine, dilute product with 1 quart of the wash water before adding.

Mops, Brooms, Brushes & Rags: Pre-wash items, then soak them in bleach solution of 1 ¼ Tablespoon per gallon water for at least 10 minutes. Rinse well.

**[LAUNDRY STAIN REMOVAL]**

[Use one or more of the following fabric stain removal directions as appropriate:]

**[To] Remove Stains:** Berry, wine, coffee, tea, ink, grass, dye, medicine stains, scorch and mildew stains: Mix ¼ cup of bleach with a gallon of water. Soak stained area for 5 minutes to remove grass, ink, coffee, tea, scorch, fruit, etc. Rinse thoroughly.

**[To] [Remove Stains:] Stain Removal:**

1. Mix ¼ cup of bleach with a gallon of water.
2. Soak stained area for 5 minutes to remove grass, ink, coffee, tea, scorch, fruit, etc.
3. Rinse thoroughly.

**[To] Remove Stains:** Berry, wine, coffee, tea, ink, grass, dye, medicine stains, scorch and mildew stains: Make solutions of 2 tablespoons of this product to each quart water. Immerse fabric for 5 to 10 minutes. Rinse well in clear water. Repeat if necessary.

**[NON-PESTICIDAL: SURFACES OTHER THAN LAUNDRY]**

**To Deodorize & Remove Allergens<sup>3</sup> from Hard Non-Porous Surfaces:** Mix ¾ cup bleach with 1 gallon of water and apply solution until the surface is thoroughly wet. Wipe with a clean cloth or sponge. No rinsing required.

<sup>3</sup> - This product removes the following non-living allergens: dust mite matter [or particles] • cockroach matter [or particles] • pet dander • pollen particle allergens

**For Stain Removal** - Mix 1 cup with 1 gallon of water.  
*All surfaces:* Add bleach to detergent solution, apply, rinse.

**Removing [To Remove] Mold & Mildew Stains from Outdoor Patios:**

1. Protect plants from overspray.
2. Use 1 cup of bleach per gallon of water to clean unsightly stains using a brush.
3. Rinse entire area, including plants, with water for 5 minutes.

**For Deodorizing** - Mix ¾ cup bleach with 1 gallon of water.  
*Garbage Cans:* After washing and rinsing, brush inside with solution. Empty and let drain.

**For Deodorizing Drains** - Pour 1 cup bleach in drain.  
*Drains:* Flush drains. Pour into drain. Flush with hot water.

**For Bleaching -or- Whitening** - Mix ½ cup with 1 gallon of water.  
*Wooden Surfaces:* Apply for 5 minutes, rinse.

**DISINFECTING [To Disinfect]:** [Choose one or more sets of directions as appropriate:]

**[KITCHEN<sup>1</sup>:** [Optional to list one or more:] Appliances, countertops, hard non-porous plastic cutting boards, faucets, floors, freezers, garbage disposals, glass, glazed ceramic tile, linoleum, microwaves, painted woodwork, refrigerators, sinks, stoves, stove tops, trash cans, trash bins, vinyl, walls, work surfaces]

**Kitchen:** Clean and disinfect [May add use site from the list above]<sup>1</sup>:

1. Use 3/4 cup of Bleach per gallon of water.
2. Wash, rinse, or wipe surfaces and then apply disinfecting solution.
3. Let stand 5 minutes, then rinse thoroughly and air dry.

**[BATHROOM<sup>2</sup>:** [Optional to list one or more:] Bathtubs, countertops, faucets, floors, glazed ceramic tile, glazed porcelain, showers, plastic shower curtains, shower walls, sinks, vinyl, walls]

**[To Disinfect] Bathroom:** Disinfect and deodorize [May add use site from the list above]<sup>2</sup>:

1. Use 3/4 cup of Bleach per gallon of water.
2. Wash, rinse, or wipe surfaces and then apply disinfecting solution.
3. Let stand 5 minutes, then rinse thoroughly and air dry.

**[To Disinfect] Kitchens and Bathrooms:** Disinfect, deodorize [and kill 99.9% of germs[\*]] on counters, in sinks, showers, bathtubs and on vinyl and tile[d] floors.

1. Wash surfaces with water
2. Disinfect surfaces with a solution of 3/4 cup of bleach per gallon of water
3. Let stand 5 minutes then rinse with water and allow to dry

**Disinfecting and Deodorizing [To Disinfect [and Deodorize]] Bathrooms:** To disinfect, deodorize and eliminate mold and mildew from washable surfaces such as tubs, showers, counter tops, sinks, ceramic tile and vinyl flooring

1. Spread a solution of 1 1/2 cups of this product per 2 gallons of water on clean surface.
2. Let stand for 5 minutes, then drain or rinse and air dry.

**Disinfect Hard Non-Porous Surfaces:**

1. Use 3/4 cup of Bleach per gallon of water.
2. Wash, rinse, or wipe surfaces and then apply disinfecting solution.
3. Let stand 5 minutes, then rinse thoroughly and air dry.

**For Disinfecting -** Mix 3/4 cup bleach with 1 gallon of water.

**Floors, Walls [and other hard inanimate surfaces not in direct contact with food]:** Pre-wash surfaces and rinse. Spray, rinse or wipe surface with bleach solution, let stand for 5 minutes. Drain or rinse and air dry.

**[To Disinfect] [and Deodorize] Disinfecting [and deodorizing] Kitchen, Dishes, Sinks:**

1. Use 1/4 cup bleach mixed with 1 quart of water to soak cleaned dishes, teapot, cups, sinks, etc. for 5 minutes.
2. Rinse with a solution of approximately 1 Tbsp. of bleach per gallon of water to prepare a 200 ppm solution. Do not use on silverware. Bleach solution can be used on glazed porcelain, baked enamel, etc. surfaces after cleaning.
3. Let air dry.

**[To] Kill Germs[\*] and Odors in Garbage Cans:**

1. Rinse with soap and water.
2. Put a solution of 3/4 cup of bleach per gallon of water in the garbage can.
3. Let stand 5 minutes then drain.

**Disinfecting Children's Hard Non-Porous Furniture and Toys:**

1. Ensure all surfaces are colorfast. Wash all surfaces thoroughly.
2. Use a solution of 3/4 cup of bleach per gallon of water to disinfect children's surfaces.
3. Let stand for 5 minutes, then rinse and allow to dry.

**Sickroom Equipment:** Wash all surfaces thoroughly. Rinse, then spread a solution of 1 1/2 cups of this product per 2 gallons of water over all surfaces. Let stand 5 minutes, then drain.

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**Special Instructions For Cleaning and Decontamination Against HIV (AIDS VIRUS), HBV (HEPATITIS B VIRUS) and HCV (HEPATITIS C VIRUS) on Surface/Objects Soiled with Blood/Body Fluids.**

Kills HIV-1 (AIDS virus), HBV (Hepatitis B virus) and HCV (Hepatitis C virus) on pre-cleaned environmental surfaces/objects previously soiled with blood/body fluids in healthcare settings or other settings in which there is an expected likelihood of soiling of inanimate surfaces/objects with blood or body fluids, and in which the surfaces/objects likely to be soiled with blood or body fluids can be associated with the potential for transmission of Human immunodeficiency virus type 1 (HIV-1) (associated with AIDS), HBV (Hepatitis B virus) and HCV (Hepatitis C virus).

**Personal Protection:** Disposable latex or vinyl gloves, gowns, masks, and/or eye coverings as appropriate must be worn during all cleaning and decontamination procedures of blood and other body fluids.

**Cleaning Procedures:** Blood and other body fluids must be thoroughly cleaned from surfaces and objects before applying this product.

**Disinfectant Use and Contact Time:** Effective against HIV-1 (AIDS virus), HBV (Hepatitis B virus) and HCV (Hepatitis C virus) on hard non-porous surfaces. Prepare disinfectant by mixing 12 fl.oz. (1 ½ cups) of this product per gallon of water to provide 5,000 ppm of available chlorine. Leave surfaces wet for 5 minutes for HIV and 10 minutes for HBV/HCV. Drain and let air dry.

**Disposal of Infectious Materials:** Blood and other body fluids should be autoclaved and disposed of according to Federal, State, and local regulations for infectious waste disposal.

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

**Special Label Instructions for Cleaning Prior to Disinfection against *Clostridium difficile* endospores**

**Personal Protection:** Wear appropriate barrier protection such as gloves, gowns, masks or eye covering.

**Cleaning Procedure:** Fecal matter/waste must be thoroughly cleaned from surfaces/objects before disinfection by application with clean cloth, mop and/or sponge saturated with product intended for disinfection. Cleaning should include vigorous wiping and/or scrubbing until visible soil is removed. Special attention is needed for high-touch surfaces. Surfaces in patient rooms should be cleaned in an appropriate manner, with restrooms and other 'dirty' areas cleaned last. Do not reuse soiled cloths.

**Infectious Materials Disposal:** Cleaning materials used that may contain feces/wastes should be disposed of immediately in accordance with local regulations for infectious materials disposal.

**For Killing *Clostridium difficile* spores:** Use 1 part bleach to 5 parts water to achieve a 1:5 dilution (~ 10,000 ppm available chlorine) before use. Clean hard, non-porous surfaces by removing gross filth. Apply 1:5 solution and let stand for 10 minutes. Rinse and air dry. Do not use on non-stainless steel, aluminum, silver or chipped baked enamel.

**Special Instructions for Inactivating AVIAN INFLUENZA A virus [in] [Veterinary Clinics] [Animal Life Science Laboratory] [Zoos] [Pet Shops] [Kennels] [Breeding and Grooming Establishments] [Animal Housing Facilities] [Poultry houses] [Hatcheries]**

For cleaning and disinfecting hard, non-porous surfaces: equipment, utensils, instruments, cages, kennels, stables, and catteries. Remove all poultry [or animals] and feeds from premises, animal transportation vehicles, crates, etc. Remove all litter, droppings, and manure from floors, walls, and surfaces of facilities occupied or traversed by poultry [or animals]. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate surfaces with a use solution of 3/4 cup (6 fl.oz.) of product per gallon of water and let stand for 5 minutes, drain and air dry. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals as well as forks, shovels, scrapers used in removing litter and manure. Ventilate buildings, coops, and other closed spaces. Do not house poultry [or animals] or employ equipment until treatment has been absorbed, set or dried. All treated feed/water bowls, racks, troughs, automatic feeders, fountains, and waterers must be rinsed with potable water before reuse.

[All directions below (up to the Sanitization section) were derived from EPA's 1986 Standard Sodium Hypochlorite Directions, dosages adjusted.]

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

[The following "Disinfection of Non-Porous Non-Food Contact Surfaces," are not to be used on labels that include the claims on page 3 or the disinfection directions on the previous two pages. They were derived from EPA's 1986 Standard Sodium Hypochlorite Directions.]

**Disinfection of Non-Porous Non-Food Contact Surfaces**

**Rinse Method** - Prepare a disinfecting solution by thoroughly mixing 13 fl.oz. of this product with 10 gallons of water (1:99 Dilution) 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, 13 fl.oz. of this product with 10 gallons of water (1:99 Dilution) 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 disinfectant to drain. Do not rinse equipment with water after treatment.

**Farm Premises**

Remove all animals, poultry, and feed from premises, vehicles, and enclosures. Remove all litter and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other facilities occupied or traversed by animals or poultry. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. To disinfect, saturate all surfaces with a solution of at least 1000 ppm available chlorine for a period of 10 minutes. A 1000 ppm solution can be made by thoroughly mixing 22 fl.oz. of this product with 10 gallons of water. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals or poultry, as well as the cleaned forks, shovels, and scrapers used for removing litter and manure. Ventilate buildings, cars, boats, and other closed spaces. Do not house livestock or poultry or employ equipment until chlorine has been dissipated. All treated feed racks, mangers, troughs, automatic feeders, fountains, and waterers must be rinsed with potable water before reuse.

**Swimming Pool Water Disinfection**

For a new pool or spring start-up, superchlorinate with 107 to 213 fl.oz. of product for each 10,000 gallons of water to yield 5 to 10 ppm available chlorine by weight. Check the level of available chlorine with a test kit. Adjust and maintain pool water pH to between 7.2 to 7.6. Adjust and maintain the alkalinity of the pool to between 50 to 100 ppm.

To maintain the pool, add manually or by a feeder device 22 fl.oz. of this product for each 10,000 gallons of water to yield an available chlorine residual between 0.6 to 1.0 ppm by weight. Stabilized pools 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 107 to 213 fl.oz. of product for each 10,000 gallons of water to yield 5 to 10 ppm available chlorine by weight. Check the level of available chlorine with a test kit. Reentry into treated pools is prohibited above levels of 4.0 ppm due to risk of bodily harm.

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

**Winterizing Pools** - While water is still clear & clean, apply 6.5 fl.oz. of product per 1000 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 manufacturers' instructions.

**Spas, Hot-Tubs, Immersion Tanks, Etc.**

**Spas / Hot Tubs** - Apply 11 fl.oz. of product per 1000 gallons of water to obtain a free available chlorine concentration of 5 ppm, as determined by a suitable chlorine test kit. Adjust and maintain pool water pH to between 7.2 and 7.8. Some oils, lotions, fragrances, cleaners, etc. may cause foaming or cloudy water as well as reduce the efficiency of the product.

To maintain the water, apply 11 fl.oz. of product per 1000 gallons of water over the surface to maintain a chlorine concentration of 5 ppm.

After each use, shock treat with 17 fl.oz. of this product per 500 gallons of water to control odor and algae. Reentry into treated spas is prohibited above levels of 5.0 ppm due to risk of bodily harm. During extended periods of disuse, add 6.5 fl.oz. of product daily per 1000 gallons of water to maintain a 3 ppm chlorine concentration.

**Hubbard and Immersion Tanks** - Add 11 fl.oz. of this product per 200 gallons of water before patient use to obtain a chlorine residual of 25 ppm, as determined by a suitable test kit. Adjust and maintain the water pH to between 7.2 and 7.6. After each use, drain the tank. Add 11 fl.oz. to a bucket of water and circulate this solution through the agitator of the tank for 15 minutes and then rinse out the solution. Clean tank thoroughly and dry with clean cloths. **[Not For Use In California]**

**Hydrotherapy Tanks** - Add 2.5 fl.oz. of this product per 1000 gallons of water to obtain a chlorine residual of 1 ppm, as determined by a suitable chlorine test kit. Pool 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.

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### Sewage & Wastewater Effluent Treatment

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

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

The following are critical factors affecting wastewater disinfection.

1. **Mixing:** It is imperative that the product and the wastewater be instantaneously and completely flash mixed to assure reaction with every chemically active soluble and particulate component of the wastewater.
2. **Contacting:** Upon flash mixing, the flow through the system must be maintained.
3. **Dosage/Residual Control:** Successful disinfection is extremely dependant 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 22 to 213 fl.oz. of this product with 100 gallons of water. Once control is evident, apply a 15 ppm available chlorine solution. Prepare this solution by mixing 3.5 fl.oz. of this product with 100 gallons of water.

**Filter Beds: Slime Control** - Remove filter from service, drain to a depth of 1 ft. above filter sand, and add 170 fl.oz. of product per 20 sq/ft evenly over the surface. Wait 30 minutes before draining water to a level that is even with the top of the filter. Wait for 4 to 6 hours before completely draining and backwashing filter.

### Disinfection of Drinking Water (Emergency / Public / Individual / Systems)

**Public Systems** - Mix a ratio of 2 fl.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 0.6 ppm is attained throughout the distribution system. Check water frequently with a chlorine test kit. Bacteriological sampling must be conducted at a frequency no less than that prescribed by the National Primary Drinking Water Regulations. Contact your local Health Department for further details.

**Individual Systems: Dug Wells** - Upon completion of the casing (lining), wash the interior of the casing (lining) with a 100 ppm available chlorine solution using a stiff brush. This solution can be made by thoroughly mixing 2.5 fl.oz. of this product into 10 gallons of water. After covering the well, pour the sanitizing solution into the well through both the pipesleeve 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 Water Systems: Drilled, Driven & Bored Wells** - Run pump until water is as free from turbidity as possible. Pour a 100 ppm available chlorine sanitizing solution into the well. This solution can be made by thoroughly mixing 2.5 fl.oz. of this product into 10 gallons of water. Add 5 to 10 gallons of clean, chlorinated water to the well in order to force the sanitizer into the rock formation. Wash the exterior of the pump cylinder with the sanitizer. Drop pipeline into the 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 to the well. Consult your local Health Department for further details.

**Individual Water Systems: Flowing Artesian Wells** - Artesian Wells generally do not require disinfection. If analyses indicate persistent contamination, the well should be disinfected. Consult your local Health Department for further details.

**Emergency Disinfection** - When boiling of water for 1 minute is not practical, water can be made potable by using this product. Prior to addition of the sanitizer, remove all suspended material by filtration or by allowing it to settle to the bottom. Decant the clarified, contaminated water to a clean container and add 3 drops 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 for several times. This process has not been demonstrated to inactivate Cryptosporidium cysts.

### Public Water Systems

**Reservoirs: Algae Control** - Hypo chlorinate streams feeding the reservoir. Suitable feeding points should be selected on each stream at least 50 yards upstream from the points of entry into the reservoir.

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

**New Tanks, Basins, Etc.** - Remove all physical soil from surfaces. Place 43 fl.oz. of this product for each 5 cubic feet of working capacity (500 ppm available chlorine). Fill to working capacity and allow to stand for at least 4 hours. Drain and flush with potable water and place in service.

**New Filter Sand** - Apply 170 fl.oz. of this product for each 150 to 200 cubic feet of sand. The action of the product dissolving as the water passes through the bed will aid in sanitizing the new sand.

**New Wells** - Flush the casing with a 50 ppm available chlorine solution of water containing 11 fl.oz. of this product for each 100 gallons of water. The solution should be pumped or fed by gravity into the well after thorough mixing with agitation. The well should stand for several hours or overnight under chlorination. It may then be pumped until a representative raw water sample is obtained. Bacterial examination of the water will indicate whether further treatment is necessary.

**Existing Equipment** - Remove equipment from service, thoroughly clean surfaces of all physical soil. Sanitize by placing 45 fl.oz. of this product for each 5 cubic feet capacity (approximately 500 ppm available chlorine). Fill to working capacity and let stand at least 4 hours. Drain and place in service. If the previous treatment is not practical, surfaces may be sprayed with a solution containing 11 fl.oz. of this product for each 5 gallons of water (approximately 1000 ppm available chlorine). After drying, flush with water and return to service.

**Emergency Disinfection After Floods**

**Wells** - Thoroughly flush contaminated casing with a 500 ppm available chlorine solution. Prepare this solution by mixing 11 fl.oz. of this product with 10 gallons of water. Backwash the well to increase yield and reduce turbidity, adding sufficient chlorinating solution to the backwash to produce a 10 ppm available chlorine residual, as determined by a chlorine test kit. After the turbidity has been reduced and the casing has been treated, add sufficient chlorinating solution to produce a 50 ppm available chlorine residual. Agitate the well water for several hours and take a representative water sample. Retreat well if water samples are biologically unacceptable.

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

**Basins, Tanks, Flumes, Etc.** - Thoroughly clean all equipment, then apply 43 fl.oz. of product per 5 cu. ft. of water to obtain 500 ppm available chlorine, as determined by a suitable test kit. After 24 hours, drain, flush, and return to service. If the previous method is not suitable, spray or flush the equipment with a solution containing 11 fl.oz. of this product for each 5 gallons of water (1000 ppm available chlorine). Allow to stand for 2 to 4 hours, flush and return to service.

**Filters** - When the sand filter needs replacement, apply 170 fl.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 100 fl.oz. per 20 sq.ft. Water should stand at a depth of 1 foot above the surface of the filter bed for 4 to 24 hours. When filter beds can be backwashed of mud and silt, apply 170 fl.oz. of this product per each 50 sq. ft., allowing the water to stand at a depth of 1 foot above the filter sand. After 30 minutes, drain water to the level of the filter. After 4 to 6 hours, drain, and proceed with normal 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 24 hour retention time. Use a chlorine test kit.

**Emergency Disinfection After Fires**

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

**Emergency Disinfection After Droughts**

**Supplementary Water Supplies** - Gravity or mechanical hypochlorite feeders should be set up on a supplementary line to dose the water to a minimum chlorine residual of 0.2 ppm after a 20 minute contact time. Use a chlorine test kit.

**Water Shipped In By Tanks, Tank Cars, Trucks, Etc.** - Thoroughly clean all containers and equipment. Spray a 500 ppm available chlorine solution and rinse with potable water after 5 minutes. This solution is made by mixing 11 fl.oz. of this product for each 10 gallons of water. During the filling of the containers, dose with sufficient amounts of this product to provide at least a 0.2 ppm chlorine residual. Use a chlorine test kit.

**Emergency Disinfection After Main Breaks**

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

**Cooling Tower/Evaporative Condenser Water**

**Slug Feed Method** - Initial Dose: When system is noticeably fouled, apply 107 to 213 fl.oz. of this product per 10,000 gallons of water in the system to obtain from 5 to 10 ppm available chlorine. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 22 fl.oz. of this product per 10,000 gallons of water in the system daily, or as needed to maintain control and keep the chlorine residual at 1 ppm. Badly fouled systems must be cleaned before treatment is begun.

**Intermittent Feed Method** - Initial Dose: When system is noticeably fouled, apply 107 to 213 fl.oz. of this product per 10,000 gallons of water in the system to obtain 5 to 10 ppm available chlorine. Apply half (or 1/3, 1/4, or 1/5) of this initial dose when half (or 1/3, 1/4, or 1/5) of the water in the system has been lost by blowdown.

Subsequent Dose: When microbial control is evident, add 22 fl.oz. of this product per 10,000 gallons of water in the system to obtain a 1 ppm residual. Apply half (or 1/3, 1/4, or 1/5) of this initial dose when half (or 1/3, 1/4, or 1/5) of the water in the system has been lost by blowdown. Badly fouled systems must be cleaned before treatment is begun.

**Continuous Feed Method** - Initial Dose: When system is noticeably fouled, apply 107 to 213 fl.oz. of this product per 10,000 gallons of water in the system to obtain 5 to 10 ppm available chlorine.

Subsequent Dose: Maintain this treatment level by starting a continuous feed of 2.5 fl.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.

**Agricultural Uses [Disinfection]**

Disinfect leafcutting bee cells and bee boards by immersion in a solution containing 1 ppm available chlorine for 3 minutes. Allow cells to drain for 2 minutes and dry for 4 to 5 hours or until no chlorine odor can be detected. This solution is made by thoroughly mixing 2 tsp. of this product to 100 gallons of water. The bee domicile is disinfected by spraying with a 0.1 ppm solution until all surfaces are thoroughly wet. Allow the domicile to dry until all chlorine odor has dissipated. [Not for use in California]

**Pulp And Paper Mill Process Water Systems**

**Slug Feed Method** - Initial Dose: When system is noticeably fouled, apply 107 to 213 fl.oz. of this product per 10,000 gallons of water in the system to obtain from 5 to 10 ppm available chlorine. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 22 fl.oz. of this product per 10,000 gallons of water in the system daily, or as needed to maintain control and keep the chlorine residual at 1 ppm. Badly fouled systems must be cleaned before treatment is begun.

**Intermittent Feed Method** - Initial Dose: When system is noticeably fouled, apply 107 to 213 fl.oz. of this product per 10,000 gallons of water in the system to obtain 5 to 10 ppm available chlorine. Apply half (or 1/3, 1/4, or 1/5) of this initial dose when half (or 1/3, 1/4, or 1/5) of the water in the system has been lost by blowdown.

Subsequent Dose: When microbial control is evident, 22 fl.oz. of this product per 10,000 gallons of water in the system to obtain a 1 ppm residual. Apply half (or 1/3, 1/4, or 1/5) of this initial dose when half (or 1/3, 1/4, or 1/5) of the water in the system has been lost by blowdown. Badly fouled systems must be cleaned before treatment is begun.

**Continuous Feed Method** - Initial Dose: When system is noticeably fouled, apply 107 to 213 fl.oz. of this product per 10,000 gallons of water in the system to obtain 5 to 10 ppm available chlorine.

Subsequent Dose: Maintain this treatment level by starting a continuous feed of 2.5 fl.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.

**SANITIZING [To Sanitize] [Non-Food Contact]:** *[Choose one or more sets of directions from the following. Several versions of wording are offered to provide supplemental distributors with options.]*

**BATHROOM<sup>1</sup>:** Bathtubs, countertops, faucets, floors, glazed ceramic tile, glazed porcelain, showers, non-porous shower curtains, shower walls, sinks, vinyl, walls

**Bathroom:** [To] Sanitize and deodorize *[May add use site from the list above]*<sup>1</sup>:

1. Use 1 tablespoon per gallon of water.
2. Wash, rinse, or wipe surfaces and then apply sanitizing solution.
3. Let stand 5 minutes, and air dry.

**To Sanitize Hard Non-Porous Surfaces:**

1. Use 1 tablespoon of Bleach per gallon of water.
2. Wash, rinse, or wipe surfaces and then apply sanitizing solution.
3. Let stand 5 minutes and air dry.

**For Sanitizing** - Mix 1 tablespoon with 1 gallon of water.

**Floors, Walls:** Pre-wash surfaces and rinse. Spray, rinse or wipe surface with bleach solution, let stand for 5 minutes. Drain and air dry.

**Sanitizing [To Sanitize] Your Pet's Food Bowls & Litter Boxes<sup>^</sup>:**

1. Wash thoroughly with water and dish detergent.
2. Sanitize bowls with 1 tablespoon of bleach per gallon of water.
3. Let stand 5 minutes then rinse with water and allow to dry.

<sup>^</sup>For litter boxes, repeat step 1, use 2/3 cup of bleach mixed with a gallon of water for step 2, then repeat step 3.

**Sanitizing [To Sanitize] Children's Hard Non-Porous Furniture and Toys:**

1. Ensure all surfaces are colorfast. Wash all surfaces thoroughly.
2. To kill 99.9% germs, use a solution of 1 tablespoon bleach per gallon of water to sanitize children's surfaces.
3. Let stand for 5 minutes, then rinse and allow to dry.



**SANITIZING [To Sanitize] [Food contact Surfaces]** *[Directions based on EPA 1986 standard. Choose one or more sets of directions from the following. Several versions of wording are offered to provide supplemental distributors with options.]*

**For Sanitizing** - Mix 1 tablespoon bleach with 1 gallon of water.

*Work Surfaces:* Pre-wash with detergent, rinse, cover surface with bleach solution for at least 2 minutes, drain, let air dry.

*Dishes, Glassware, Utensils:* After washing, soak for at least 2 minutes in bleach solution. Drain and let air dry.

*Bathtubs, Showers:* Wash, rinse, apply bleach solution for at least 2 minutes, drain let air dry.

*Refrigerators, Freezers:* Wash, rinse, apply bleach solution for at least 2 minutes, drain let air dry.

Before using this product, remove or carefully protect food. Remove gross food particles from surface. Prewash surface with a good detergent and rinse thoroughly with potable water. Mix approximately 1 tablespoon of bleach per gallon of water to prepare a 200 ppm available chlorine solution. Cover surface with bleach solution for at least 2 minutes. Air dry.

**Directions for Sanitizing [To Sanitize] Eating and Drinking Utensils:**

Prepare sanitizing solution immediately prior to use.

1. Scrape and pre-wash utensils and glass whenever possible.
2. Wash with good detergent or compatible cleaner.
3. Rinse with clean water.
4. Sanitize in solution of 1 fl.oz. to 2 gallons of water (200 ppm).
5. Immerse utensils at least 2 minutes or for contact time specified by governing sanitary code.
6. Do not reuse sanitizing solution.

**[Warewashing] [For] Sanitizing [To Sanitize] Tableware in Low Temperature Dishwashing Machine** - Dispense this product into final rinse water at 100 ppm available chlorine. Do not allow concentration to fall below 50 ppm. Air dry. Dispenser should be set to deliver 6.5 cc of sanitizing solution per gallon of water to give approximately 100 ppm of available chlorine. Only a qualified service representative should set or adjust dispenser on the machine.

**Plastic Cutting Boards:**

1. Wash with water and dish detergent.
2. Clean with a solution of 1 tablespoon of bleach per gallon of water.
3. Let stand 2 minutes then rinse with water and allow to dry.

**Wooden Cutting Boards:**

1. Wash with water and dish detergent.
2. Clean with a solution of 3 tablespoon of bleach per gallon of water.
3. Let stand 2 minutes then rinse with a solution of 1 tablespoon of bleach per gallon of water and allow to dry.

**Sanitizing [To Sanitize] Non-Porous Food Contact Surfaces:** Before using this product, remove or carefully protect food. Remove gross food particles from surface. Prewash surface with a good detergent and rinse thoroughly with potable water. Mix approximately 1 Tbsp. of bleach per gallon of water to prepare a 200 ppm available chlorine solution. Cover surface with bleach solution for at least 2 minutes. Air dry.

**Sanitizing [To Sanitize] Non-Porous Food Contact Surfaces:** Prepare a sanitizing solution by thoroughly mixing 2 Tbsp. (1 fl. oz.) of this product with 2 gallons of water to provide approximately 200 ppm available chlorine by weight. Clean all 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.

**Sanitizing [To Sanitize] Porous Food Contact Surfaces:** Prepare a solution of approximately 600 ppm by thoroughly mixing 6 Tbsp. (3 fl.oz.) of this product with 2 gallons of water. Clean surfaces in the normal manner. Rinse all surfaces thoroughly with the 600 ppm solution, maintaining contact with the sanitizer for at least 2 minutes. Prepare a 200 ppm sanitizing solution by thoroughly mixing 2 tablespoons (1 fl.oz.) of this product with 2 gallons of water. Prior to using equipment, rinse all surfaces with 200 ppm available chlorine solution. Do not rinse with water and do not soak equipment overnight.

**Egg Shell Sanitizing:** Thoroughly clean eggs. Mix approximately 1 Tbsp. (1/2 fl. oz) of bleach per 1 gallon of warm water to produce a 200 ppm available chlorine solution. The sanitizer temperature should not exceed 130°F. Spray the warm sanitizer so that the eggs are thoroughly wetted. Allow the eggs to thoroughly dry before casing or breaking. Do not apply a potable rinse. The solution should not be re-used to sanitize eggs.

**To Sanitize Milking Equipment:** Prepare sanitizing solution by mixing 1 Tbsp. (1/2 fl. oz) of bleach per gallon of water immediately prior to use. All surfaces to be sanitized should be properly cleaned before application of chlorine solution. Milking utensils should be submerged in the solution for at least 2 minutes and allowed to drain. Do not rinse equipment with water after treatment. 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. Sanitizers used in automated systems may be used for general cleaning but may not be reused for sanitizing purposes.

180922

**SANITIZING [To Sanitize] [Toilet Bowl]** [Directions based on EPA 1986 standard. Choose one or more sets of directions from the following. Versions of wording are offered to provide supplemental distributors with options.]

**Toilet Bowls:** To sanitize and deodorize pre-cleaned toilet bowls, use 1 cup of this product.

1. Flush, pour in bleach – swab with brush, making sure to get under the rim, and
2. Let stand for 10 minutes.
3. Flush. DO NOT use with bowl cleaners or any other household chemicals.

**Toilet Bowl:** To sanitize and deodorize pre-cleaned toilet bowls, use 1 cup of this product. Flush, pour in bleach – swab with brush, making sure to get under the rim. Let stand for 10 minutes. Flush. DO NOT use with bowl cleaners or any other household chemicals.

[The following directions were derived from EPA's 1986 Standard Sodium Hypochlorite Directions.]

**Household Laundry Sanitizers**

**In Soaking Suds** - Thoroughly mix 4.5 fl.oz. of this product to 10 gallons of wash water to provide 200 ppm available chlorine. Wait 5 minutes, then add soap or detergent. Immerse laundry for at least 11 minutes prior to starting the wash/rinse cycle.

**In Washing Suds** - Thoroughly mix 4.5 fl.oz. of this product to 10 gallons of wash water containing clothes to provide 200 ppm available chlorine. Wait 5 minutes, then add soap or detergent and start the wash/rinse cycle.

**Commercial Laundry Sanitizers**

Wet fabrics or clothes should be spun dry prior to sanitization. Thoroughly mix 4.5 fl.oz. of this product with 10 gallons of water to yield 200 ppm available chlorine. Promptly after mixing the sanitizer, add the solution into the prewash prior to washing fabrics/clothes in the regular wash cycle with a good detergent. Test the level of available chlorine, if solution has been allowed to stand. Add more of this product if the available chlorine level has dropped below 200 ppm.

**Sanitization Of Porous Non-Food Contact Surfaces**

**Rinse Method** - Prepare a sanitizing solution by thoroughly mixing 13 fl.oz. of this product with 10 gallons of water to provide approximately 600 ppm available chlorine by weight. Clean surfaces in the normal manner. Prior to use, rinse all surfaces thoroughly with the sanitizing solution, maintaining contact with the sanitizer for at least 2 minutes. Do not rinse equipment with water after treatment and do not soak equipment overnight.

**Immersion Method** - Prepare a sanitizing solution by thoroughly mixing, in an immersion tank, 13 fl.oz. of this product with 10 gallons of water to provide approximately 600 ppm available chlorine by weight. Clean equipment in the normal manner. Prior to use, immerse equipment in the sanitizing solution for at least 2 minutes and allow the sanitizer to drain. Do not rinse equipment with water after treatment.

**Spray/Fog Method** - After cleaning, sanitize non-food contact surfaces with 600 ppm available chlorine by thoroughly mixing the product in a ratio of 13 fl.oz. of this product with 10 gallons of water. Use spray or fogging equipment which can resist hypochlorite solutions. Always empty and rinse spray/fog equipment with potable water after use. Prior to using equipment, thoroughly spray or fog all surfaces until wet, allowing excess sanitizer to drain. Vacate area for at least 2 hours.

**Sanitizing Of Porous Food Contact Surfaces**

**Rinse Method** - Prepare a sanitizing solution by thoroughly mixing 13 fl.oz. of this product with 10 gallons of water to provide 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 and allow the sanitizer to drain. Prepare a 200 ppm sanitizing solution by thoroughly mixing 4.5 fl.oz. of this product with 10 gallons of water and rinse all surfaces with this 200 ppm solution. Do not rinse with water and do not soak equipment overnight.

**Immersion Method** - Prepare a sanitizing solution by thoroughly mixing, in an immersion tank, 13 fl.oz. of this product with 10 gallons of water to provide 600 ppm available chlorine by weight. Clean equipment in the normal manner. Prior to use, immerse equipment in the sanitizing solution, maintaining contact for at least 2 minutes and allow the sanitizer to drain. Following this, prepare a 200 ppm sanitizing solution by thoroughly mixing 4.5 fl.oz. of this product with 10 gallons of water and rinse all surfaces with this 200 ppm solution. Do not rinse with water and do not soak equipment overnight.

**Spray/Fog Method** - Preclean all surfaces after use. Prepare a 600 ppm available chlorine sanitizing solution of sufficient size by thoroughly mixing the product in a ratio of 13 fl.oz. product with 10 gallons of water. Use spray or fogging equipment which can resist hypochlorite solutions. Always empty and rinse spray/fog equipment with potable water after use. Thoroughly spray or fog all surfaces until wet, allowing excess sanitizer to drain. Vacate area for at least 2 hours. Prior to using equipment, rinse all surfaces with a 200 ppm available chlorine solution. Prepare a 200 ppm sanitizing solution by thoroughly mixing 4.5 fl.oz. of this product with 10 gallons of water.

**Sanitization Of Non-Porous Non-Food Contact Surfaces**

**Rinse Method** - Prepare a sanitizing solution by thoroughly mixing 4.5 fl.oz. of this product with 10 gallons of water to provide approximately 200 ppm available chlorine by weight. Clean equipment surfaces in the normal manner. Prior to use, rinse all surfaces thoroughly with the sanitizing solution, maintaining contact with the sanitizer for at least 2 minutes. Do not rinse equipment with water after treatment and do not soak equipment overnight.

**Immersion Method** - Prepare a sanitizing solution by thoroughly mixing, in an immersion tank, 4.5 fl.oz. of this product with 10 gallons of water to provide approximately 200 ppm available chlorine by weight. Clean equipment in the normal manner. Prior to use, immerse equipment in the sanitizing solution for at least 2 minutes and allow the sanitizer to drain. Do not rinse equipment with water after treatment.

**Spray/Fog Method** - Preclean all surfaces after use. Prepare a 200 ppm. available chlorine sanitizing solution of sufficient size by thoroughly mixing the product in a ratio of 4.5 fl.oz. product with 10 gallons of water. Use spray or fogging equipment which can resist hypochlorite solutions. Prior to using equipment, thoroughly spray or fog all surfaces until wet, allowing excess sanitizer to drain. Vacate area for at least 2 hours.

**Sanitization Of Non-Porous 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 2.5 fl.oz. of this product with 10 gallons of water. If no test kit is available, prepare a sanitizing solution by thoroughly mixing 4.5 fl.oz. of this product with 10 gallons of water to provide approximately 200 ppm available chlorine by weight.

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

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

**Immersion Method** - A solution of 100 ppm available chlorine may be used in the sanitizing solution if a chlorine test kit is available. Solutions containing an initial concentration of 100 ppm available chlorine must be tested and adjusted periodically to ensure that the available chlorine does not drop below 50 ppm. Prepare a 100 ppm sanitizing solution by thoroughly mixing 2.5 fl.oz. of this product with 10 gallons of water. If no test kit is available, prepare a sanitizing solution by thoroughly mixing 4.5 fl.oz. of this product with 10 gallons of water to provide approximately 200 ppm available chlorine by weight.

Clean equipment in the normal manner. Prior to use, immerse equipment in the sanitizing solution for at least 2 minutes and allow the sanitizer to drain. 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 4.5 fl.oz. product with 10 gallons of water. Pump solution through the system until full flow is obtained at all extremities, the system is completely filled with the sanitizer and all air is removed from the system. Close drain valves and hold under pressure for at least 2 minutes to ensure contact with all internal surfaces. Remove some cleaning solution from drain valve and test with a chlorine test kit. Repeat entire cleaning/sanitizing process if effluent contains less than 50 ppm available chlorine.

**Clean-In-Place Method** - Thoroughly clean equipment after use. Prepare a volume of a 200 ppm available chlorine sanitizing solution equal to 110% of volume capacity of the equipment by mixing the product in a ratio of 4.5 fl.oz. product with 10 gallons of water. Pump solution through the system until full flow is obtained at all extremities, the system is completely filled with the sanitizer and all air is removed from the system. Close drain valves and hold under pressure for at least 10 minutes to ensure contact with all internal surfaces. Remove some cleaning solution from drain valve and test with a chlorine test kit. Repeat entire cleaning/sanitizing process if effluent contains less than 50 ppm available chlorine.

**Spray/Fog Method** - Preclean all surfaces after use. Use a 200 ppm available chlorine solution to control bacteria, mold or fungi and a 600 ppm solution to control bacteriophage. Prepare a 200 ppm sanitizing solution of sufficient size by thoroughly mixing the product in a ratio of 4.5 fl.oz. product with 10 gallons of water. Prepare a 600 ppm solution by thoroughly mixing the product in a ratio of 13 fl.oz. product with 10 gallons of water. Use spray or fogging equipment which can resist hypochlorite solutions. Always empty and rinse spray/fog equipment with potable water after use. Thoroughly spray or fog all surfaces until wet, allowing excess sanitizer to drain. Vacate area for at least 2 hours. Prior to using equipment, rinse all surfaces treated with 600 ppm solution with a 200 ppm solution.

**Agricultural Uses [Sanitization/Washing]**

**Post-Harvest Protection** - Potatoes can be sanitized after cleaning and prior to storage by spraying with a sanitizing solution at a level of 1 gallon of sanitizing solution per ton of potatoes. Thoroughly mix 2.5 fl.oz. of this product to 2 gallons of water to obtain 500 ppm available chlorine.

**Food Egg Sanitization** - Thoroughly clean all eggs. Thoroughly mix 4.5 fl. oz. of this product with 10 gallons of warm water to produce a 200 PPM available chlorine solution. The sanitizer temperature should not exceed 130° F. Spray the warm sanitizer so that the eggs are thoroughly wetted. Allow the eggs to thoroughly dry before casing or breaking. Do not apply a potable water rinse. The solution should not be re-used to sanitize eggs.

**Fruit & Vegetable Washing** - Thoroughly clean all fruits and vegetables in a wash tank. Thoroughly mix 11 fl.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 rinse vegetables with the sanitizing solution prior to packaging. Rinse fruit with potable water only prior to packaging.

**Sanitization of Dialysis Machines**

Flush equipment thoroughly with water prior to using this product. Thoroughly mix 13 fl.oz. of this product to 10 gallons of water to obtain at least 600 ppm available chlorine. Immediately use this product in the hemodialysate system allowing for a minimum contact time of 15 minutes at 20°C. Drain system of the sanitizing solution and thoroughly rinse with water. Discard and DO NOT reuse the spent sanitizer. Rinsate must be monitored with a suitable test kit to ensure that no available chlorine remains in the system.

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

**Aquacultural Uses**

**Fish Ponds** - Remove fish from ponds prior to treatment. Thoroughly mix 213 fl.oz. of this product to 10,000 gallons of water to obtain 10 ppm available chlorine. Add more product to the water if the available chlorine level is below 1 ppm after 5 minutes. Return fish to pond after the available chlorine level reaches zero.

**Fish Pond Equipment** - Thoroughly clean all equipment prior to treatment. Thoroughly mix 4.5 fl.oz. of this product to 10 gallons of water to obtain 200 ppm available chlorine. Porous equipment should soak for one hour.

**Maine Lobster Ponds** - Remove lobsters, seaweed, etc. from ponds prior to treatment. Drain the pond. Thoroughly mix 12,800 fl.oz. of this product to 10,000 gallons of water to obtain at least 600 ppm available chlorine. Apply so that all barrows, gates, rocks and dams are treated with product. Permit high tide to fill the pond and then close the gates. Allow water to stand for 2 to 3 days until the available chlorine level reaches zero. Open and allow 2 tidal cycles to flush the pond before returning lobsters to the pond. [Not for use in California]

**Conditioning Live Oysters** - Thoroughly mix 11 fl.oz. of this product to 10,000 gallons of water at 50 to 70°F to obtain 0.5 ppm available chlorine. Expose oysters to this solution for at least 15 minutes, monitoring the available chlorine level so that it does not fall below 0.05 ppm. Repeat entire process if the available chlorine level drops below 0.05 ppm or the temperature falls below 50°F. [Not for use in California]

**Control Of Scavengers In Fish Hatchery Ponds** - Prepare a solution containing 200 ppm of available chlorine by mixing 4.5 fl.oz. of product with 10 gallons of water. Pour into drained pond potholes. Repeat if necessary. Do not put desirable fish back into refilled ponds until chlorine residual has dropped to 0 ppm, as determined by a test kit.

**Artificial Sand Beaches**

To sanitize the sand, spray a 500 ppm available chlorine solution containing 11 fl.oz. of this product per 10 gallon of water at frequent intervals. Small areas can be sprinkled with a watering can. [Not for Use in California]

**Asphalt or Wood Roofs And Sidings**

To control fungus and mildew, first remove all physical soil by brushing and hosing with clean water, and apply a 5000 ppm available chlorine solution. Mix 11 fl.oz. of this product per gallon of water and brush or spray roof or siding. After 30 minutes, rinse by hosing with clean water. [Not for use in California]

**Boat Bottoms**

To control slime on boat bottoms, sling a plastic tarp under boat, retaining enough water to cover the fouled bottom area, but not allowing water to enter enclosed area. This envelope should contain approximately 500 gallons of water for a 14 foot boat. Add 37.5 fl.oz. of this product to this water to obtain a 35 ppm available chlorine concentration. Leave immersed for 8 to 12 hours. Repeat if necessary. Do not discharge the solution until the free chlorine level has dropped to 0 ppm, as determined by a swimming pool test kit. [Not for use in California]

**[Directions (from other parts of the label) in Table form;  
other directions from body of label may be added to table]**

<b>DISINFECTING</b>	<b>Product</b>	<b>Water</b>	<b>Instructions</b>
Floors, Walls, Bathtubs & Showers	$\frac{3}{4}$ Cup	1 Gallon	Pre-wash Surface and rinse. Spray, rinse or wipe surface with bleach solution, let stand for 5 minutes. Rinse and air dry.
<b>SANITIZING</b>	<b>Product</b>	<b>Water</b>	<b>Instructions</b>
Work Surfaces	1 tbsp	1 Gallon	Pre-Wash with detergent, rinse cover surface with bleach solution for at least 2 minutes, drain, let air dry.
Dishes, Glasses, Utensils	1 tbsp	1 Gallon	After washing, soak for at least 2 minutes in bleach solution. Drain and let air dry.
Refrigerators, Freezers	1 tbsp	1 Gallon	Wash, rinse, apply bleach solution for at least 2 minutes, drain, let air dry.
Mops, Brooms, Brushes & Rags	1 $\frac{1}{4}$ tbsp	1 Gallon	Pre-wash items, then soak them in bleach solution for at least 10 minutes. Rinse well.
<b>DEODORIZING</b>	<b>Product</b>	<b>Water</b>	<b>Instructions</b>
Garbage Cans	$\frac{3}{4}$ Cup	1 Gallon	After washing and rinsing, brush inside with bleach solution. Empty and let drain.
Drains	1 Cup	-----	Flush drains. Pour into drain. Flush with hot water.
<b>MOLD, MILDEW &amp; STAIN REMOVAL</b>	<b>Product</b>	<b>Water</b>	<b>Instructions</b>
All Surfaces	1 Cup	1 Gallon	Add bleach to powdered detergent solution. Apply, let stand for at least 5 minutes. Wipe and rinse.

[Optional Table of Proportions]

Mix quantity of bleach with quantity of water to obtain ppm level indicated.

PPM*	Quantity of Bleach	+ Quantity of Water	PPM*	Quantity of Bleach	+ Quantity of Water
5	1 Part	11,999 Parts	600	1 Part	99 Parts
	1 Drop (0.0017 fl. oz.)	2 Cups		1 Tbsp (0.5 fl. oz.)	6 Cups
	1 Tsp (0.17 fl. oz.)	15 Gallons		¼ Cup (2 fl. oz.)	1 ½ Gallons
10	1 Part	5999 Parts		½ Cup (4 fl. oz.)	3 Gallons
	2 Drops (0.0034 fl. oz.)	2 Cups		¾ Cup (6 fl. oz.)	4 ½ Gallons
	1 Tsp (0.17 fl. oz.)	7 ½ Gallons		10 Gallons (1,280 fl. oz.)	1000 Gallons
25	1 Part	2399 Parts	800	1 Part	74 Parts
	5 Drops (0.0085 fl. oz.)	2 ½ Cups		1 Tbsp (0.5 fl. oz.)	4 ½ Cups
	1 Tsp (0.17 fl. oz.)	3 Gallons		¼ Cup (2 fl. oz.)	1 Gallon
50	1 Part	1199 Parts		½ Cup (4 fl. oz.)	2 ¼ Gallons
	5 Drops (0.0085 fl. oz.)	1 ¼ Cups		¾ Cup (6 fl. oz.)	3 ¼ Gallons
	1 Tbsp (0.5 fl. oz.)	4 Gallons		1 Cup (8 fl. oz.)	4 ½ Gallons
	¼ Cup (2 fl. oz.)	18 Gallons	1200	1 Part	49 Parts
75	1 Part	799 Parts		1 Tbsp (0.5 fl. oz.)	3 Cups
	15 Drops (0.0255 fl. oz.)	2 ½ Cups		¼ Cup (2 fl. oz.)	¾ Gallon
	¼ Cup (2 fl. oz.)	12 Gallons		½ Cup (4 fl. oz.)	1 ½ Gallons
100	1 Part	599 Parts		¾ Cup (6 fl. oz.)	2 ¼ Gallons
	1 Tbsp (0.5 fl. oz.)	2 Gallons		2,700	1 Part
	¼ Cup (2 fl. oz.)	9 Gallons	¼ Cup (2 fl. oz.)		5 Cups
200	1 Part	299 Parts	¾ Cup (6 fl. oz.)		1 Gallon
	1 Tbsp (0.5 fl. oz.)	1 Gallon	1 ½ Cups (12 fl. oz.)		2 Gallons
	2 Tbsp (1.0 fl. oz.)	2 Gallons	3 Cups (24 fl. oz.)		4 Gallons
	5 Tbsp (2.5 fl. oz.)	5 Gallons	6 Cups (48 fl. oz.)		8 Gallons
	¼ Cup (2 fl. oz.)	4 Gallons	5000	1 Part	11 Parts
	½ Cup (4 fl. oz.)	8 Gallons		½ Cup (4 fl. oz.)	5 Cups
	¾ Cup (6 fl. oz.)	12 Gallons		1 ½ Cups (12 fl. oz.)	1 Gallon
400	1 Part	149 Parts		3 Cups (24 fl. oz.)	2 Gallons
	1 Tsp (0.17 fl. oz.)	3 Cups		½ Gallon (64 fl. oz.)	5 Gallons
	1 Tbsp (0.5 fl. oz.)	½ Gallon		1 Gallon (128 fl. oz.)	10 Gallons
	¼ Cup (2 fl. oz.)	2 Gallons	10,000	1 Part	5 Parts
	½ Cup (4 fl. oz.)	4 Gallons		½ Cup (4 fl. oz.)	2 ½ Cups
	¾ Cup (6 fl. oz.)	6 Gallons		2 ½ Cups (20 fl. oz.)	3 Quarts
	1 Cup (8 fl. oz.)	8 Gallons		1 Gallon (128 fl. oz.)	5 Gallons

[\*]PPM (Parts Per Million) of available chlorine (approximate)

**DILUTION TABLE: PPM (Parts Per Million) Available Chlorine.**

Check chlorine concentration with standard test strip

½ oz. this product (1 tablespoon) + 1 gallon water = 200 ppm (1:299 Dilution)

¾ cup this product + one gallon water = 2700 ppm

12 oz. this product (1 ½ cup) + one gallon water = 5000 ppm

[other ppm levels/dilutions can be added from the table above]