PM 32 66426-2 8/22/97 Page 1 of 8

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Antimicrobials Division (7510W)
401 "M" St., S.W.
Washington, D.C. 20460

NOTICE OF PESTICIDE:
_x_ Registration
____ Reregistration

(under FIFRA, as amended)

EPA Reg. Number:	Date of Issuance:
66426-2	AUG 22 1997

Term of Issuance: Conditional

Name of Pesticide Product: Chem Bleach Ultra

Name and Address of Registrant (include ZIP Code):

Rebecca A. Sucher
HCI Chemtech Distribution, Inc.
Technical Resource Center
6529 S. Broadway
St. Louis, MO 63111

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

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

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

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.

2. Change the label by revising the EPA Registration Number to read, "EPA Reg. No.66426-2".

3. Delete the term "Nominal concentration" following the term "Active Ingredient" on he label.

4. Submit two copies of the revised final printed label for the record.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Signature of Approving Official:	Date:
Robert S. Brennis, Acting PM 32	8/22/97

EPA Form 8570-6

CHEM BLEACH ULTRA

D.O.T. DESCRIPTION: HYPOCHLORITE SOLUTIONS, 8, UN1791, III

ACTIVE INGREDIENT (NOMINAL CONCENTRATION):

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

MANUFACTURED BY: HCI Chemtech Distribution, Inc.
DISTRIBUTED BY: HCI Chemtech Dist. Inc., 5200 Stilwell, Kansas City, MO 64120
EPA Reg. NUMBER: 66426-XXXXX
EPA ESTABLISHMENT NUMBER: 66426-MO-004

ACCEPTED
with COMMENTS
in EPA Letter Dated:
AUG 22 1997
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No. 66426-2

DIRECTIONS FOR USE:
It is a violation of federal law to use this product in a manner inconsistent with its labelling.
Note: This product degrades with age. Use a chlorine test kit and increase dosage, as necessary, to obtain the required level of available chlorine.

COOLING TOWER EVAPORATIVE CONDENSER WATER
Slug Feed Method- Initial dose: When system is noticeably fouled, apply 52-104 oz. of this product per 10,000 gallons of water in the system to obtain from 5-10 ppm available chlorine. Repeat until control is achieved. Subsequent dose: 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 52-104 oz. of this product per 10,000 gallons of water in the system to obtain 5-10 ppm available chlorine. Apply half (or 0.3, 0.25, or 0.2) of this initial dose when half (or 0.3, 0.25, or 0.2) of the water in the system has been lost by blowdown. Subsequent dose: 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 0.3, 0.25, or 0.2) of this initial dose when half (or 0.3, 0.25, or 0.2) 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 52-104 oz. of this product per 10,000 gallons of water in the system to obtain 5-10 ppm available chlorine. Subsequent dose: Maintain this treatment level by starting a continuous feed of 1 oz. of this product per 1,000 gallons of water lost by blowdown to maintain a 1 ppm residual. Badly fouled systems must be cleaned before treatment is begun.
Briquettes or Tablets- Initially slug dose the system with 52 oz. of this product per 10,000 gallons of water in the system. Badly fouled systems must be cleaned before treatment is begun. Subsequent dose: When microbial control is evident, add 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.

SEWAGE AND WASTEWATER TREATMENT
Effluent Slime Control- Apply a 100-1000 ppm available chlorine solution at a location which will allow complete mixing. Prepare this solution by mixing 10-100 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 1.5 oz. of this product with 100 gallons of water.
Filter Beds Slime Control- Remove filter from service, drain to a depth of 1 foot above the filter sand and add 80 oz. of product per 20 square feet evenly over surface. Wait 30 minutes before draining water to a level that is even with the top of the filter. Wait for 4-6 hours before completely draining and backwashing filter.

FOR OTHER AUTHORIZED USE INSTRUCTIONS, SEE ATTACHED SHEETS.

EMERGENCY TELEPHONE: 1-800-424-9300

LOT NUMBER: 2031 NET WT. 9 LBS.

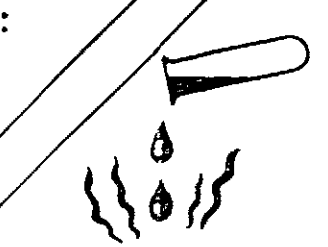
DANGER
KEEP OUT OF REACH OF CHILDREN

STATEMENT OF PRACTICAL TREATMENT (FIRST AID):
IF CONTACT WITH EYES OCCURS, flush with water for at least 15 minutes. Get prompt medical attention.
IF CONTACT WITH SKIN OCCURS, wash with plenty of water.
IF SWALLOWED, drink large quantities of milk or gelatin solution. If these are not available, drink large quantities of water. DO NOT give vinegar or other acids. DO NOT induce vomiting. Get prompt medical attention.

PRECAUTIONARY STATEMENTS:

HAZARDS TO HUMANS AND DOMESTIC ANIMALS:
DANGER: Corrosive, may cause severe skin irritation or chemical burns to broken skin. Causes eye damage. 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. Avoid breathing vapors. Vacate poorly ventilated areas as soon as possible. Do not return until odors have dissipated.

PHYSICAL AND CHEMICAL HAZARDS:
STRONG OXIDIZING AGENT: Mix only with water according to label directions. Mixing this product with gross filth such as feces, urine, etc., or with ammonia, acids, detergents or other chemicals may release hazardous gases irritating to eyes, lungs and mucous membranes.
ENVIRONMENTAL HAZARDS: This pesticide is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.
STORAGE AND DISPOSAL: Store this product in a cool dry area, away from direct sunlight and heat to avoid deterioration. In case of spill flood areas with large quantities of water. Product orrinsates that cannot be used should be diluted with water before disposal in a sanitary sewer. Do not reuse empty container but place in trash collection. Do not contaminate food or feed by storage, disposal or cleaning of equipment.



CORRO

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TABLE OF PROPORTIONS
AVAILABLE CHLORINE

5 ppm---	0.05	
10 ppm---	0.10	ounces of
50 ppm---	0.51	product in
100 ppm---	1.02	10 gallons
200 ppm---	2.05	of water
600 ppm---	6.14	

For Industrial Use Only
ATTENTION: This Container Hazardous When Empty. Since Empty Container Retains Product Residues (Vapor or Liquid), All Labeled Hazard Precautions Must Be Observed. Empty Container Must Be Properly Disposed Of According To All Applicable Federal, State and Local Codes.
HCI warrants that the product herein shall conform to HCI's standard specifications. HCI MAKES NO OTHER WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, AS TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ANY OTHER MATTER WITH RESPECT TO THE PRODUCT, WHETHER USED ALONE OR IN COMBINATION WITH OTHER SUBSTANCES. LIMIT OF LIABILITY: HCI shall not be liable for, and Buyer assumes responsibility for all personal injury and property damage resulting from the handling, possession, use or resale of the product, whether used alone or in combination. IN NO EVENT SHALL HCI BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES WHETHER BUYER'S CLAIM IS IN CONTRACT, NEGLIGENCE, STRICT TORT OR OTHERWISE.

HEALTH H
4 - Deadly
3 - Extreme
2 - Hazardo
1 - Slightly
Hazardo
0 - Normal

SPECIFIC HAZ
Oxidizer
Acid
Alkali
Corrosive
Use NO WATE
Radiation Haza

Rating

Chemtech Dist.,

5200 Stilwell, Kansas Ci

DIRECTIONS FOR USE
CHEM BLEACH ULTRA (SODIUM HYPOCHLORITE 12.5%)

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 REESTABLISH A 200 PPM RESIDUAL. DO NOT RINSE EQUIPMENT WITH WATER AFTER TREATMENT AND DO NOT SOAK EQUIPMENT OVERNIGHT. SANITIZER 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 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 NOT TEST KIT IS AVAILABLE, PREPARE A SANITIZING SOLUTION BY THOROUGHLY MIXING 2 OZ. OF THIS PRODUCT WITH 10 GALLONS 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 THAT 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. SANITIZER 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 PLACEMETHOD 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. 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 SANITIZER, AND ALL AIR IS REMOVED FROM THE SYSTEM. CLOSE DRAIN VALVE 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 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 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 TREATED WITH A 600 PPM SOLUTION WITH A 200 PPM SOLUTION.

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 TO 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 N 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, ALL SURFACES UNTIL WET, ALLOWING EXCESS SANITIZER TO DRAIN. VACATE AREA FOR AT LEAST 2 HOURS.

SANITIZATION OF POROUS FOOD CONTACT SURFACES:

RINSE METHOD PREPARE A 600 PPM SOLUTION BY THOROUGHLY MIXING 6 OZ. OF THIS PRODUCT WITH 10 GALLONS OF WATER. CLEAN SURFACES IN THE NORMAL MANNER. RINSE ALL SURFACES THOROUGHLY WITH THE 600 PPM SOLUTION, MAINTAINING CONTACT FOR AT LEAST 2 MINUTES. PREPARE A 200 PPM SANITIZING SOLUTION BY THOROUGHLY MIXING 2 OZ. OF THIS PRODUCT WITH 10 GALLONS OF WATER. PRIOR TO USING EQUIPMENT, RINSE ALL SURFACES WITH A 200 PPM AVAILABLE CHLORINE SOLUTION. DO NOT RINSE AND DO NOT SOAK EQUIPMENT OVERNIGHT.

IMMERSION METHOD PREPARE A 600 PPM SOLUTION BY THOROUGHLY MIXING, IN AN IMMERSION TANK, 6 OZ. OF THIS PRODUCT WITH 10 GALLONS OF WATER. CLEAN EQUIPMENT IN THE NORMAL MANNER. IMMERSE EQUIPMENT IN THE 600 PPM SOLUTION FOR AT LEAST 2 MINUTES. PREPARE A 200 PPM SANITIZING SOLUTION BY THOROUGHLY MIXING 2 OZ. OF THIS PRODUCT WITH 10 GALLONS OF WATER. PRIOR TO USING EQUIPMENT, IMMERSE ALL SURFACES IN A 200 PPM AVAILABLE CHLORINE SOLUTION. DO NOT RINSE 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 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.

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 TO ALLOW THE SANITIZER TO DRAIN. DO NOT RINSE EQUIPMENT WITH WATER AFTER TREATMENT.

SPRAY FOG METHOD AFTER CLEANING, SANITIZE NON FOODCONTACT SURFACES WITH 600 PPM AVAILABLE CHLORINE BY THOROUGHLY MIXING THE PRODUCT IN A RATIO 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, 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 THE TOTAL NUMBER OF COLIFORM BACTERIA AND OR FECAL COLIFORM BACTERIA, AS DETERMINED BY THE MOST PROBABLE NUMBER (MPM) 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 OF 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 DEPENDENT ON RESPONSE TO FLUCTUATING CHLORINE DEMAND TO MAINTAIN A PREDETERMINED, DESIRABLE CHLORINE LEVEL. SECONDARY EFFLUENT SHOULD CONTAIN 0.2 – 1.0 PPM CHLORINE RESIDUAL AFTER A 15-30 MINUTE CONTACT TIME. A REASONABLE AVERAGE OF RESIDUAL CHLORINE IS 0.5 PPM AFTER 15 MINUTES CONTACT TIME.

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 DISINFECTING SOLUTION FOR AT LEAST 10 MINUTES AND ALLOW THE SANITIZER TO DRAIN. DO NOT RINSE EQUIPMENT WITH WATER AFTER TREATMENT.

COOLING TOWER 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 DOSE: 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 0.3, 0.25, OR 0.2) OF THIS INITIAL DOSE WHEN HALF (OR 0.3, 0.25, OR 0.20) OF THE WATER IN THE SYSTEM HAS BEEN LOST BY BLOWDOWN. SUBSEQUENT DOSE: 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 0.3, 0.25, OR 0.2) OF THIS INITIAL DOSE WHEN HALF (OR 0.3, 0.25, OR 0.2) 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 DOSE: MAINTAIN THIS TREATMENT LEVEL BY STARTING A CONTINUOUS FEED OF 1 OZ. OF THIS PRODUCT PER 1,000 GALLONS OF WATER LOST BY BLOWDOWN TO MAINTAIN A 1 PPM RESIDUAL. BADLY FOULED SYSTEMS MUST BE CLEANED BEFORE TREATMENT IS BEGUN.

BRIQUETTES OR TABLETS INITIALLY SLUG DOSE THE SYSTEM WITH 52 OZ. OF THIS PRODUCT PER 10,000 GALLONS OF WATER IN THE SYSTEM. BADLY FOULED SYSTEMS MUST BE CLEANED BEFORE TREATMENT IS BEGUN. SUBSEQUENT DOSE: WHEN MICROBIAL CONTROL IS EVIDENT, ADD 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.

PUBLIC WATER SYSTEMS:

RESERVOIRS ALGAE CONTROL HYPOCHLORINATE STREAM 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 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 RETURN TO SURFACE.

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 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 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 20 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 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.

SWIMMING POOLS:

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 TO PH TO BETWEEN 7.2 TO 7.6. ADJUST AND MAINTAIN THE ALKALINITY OF THE POOL TO BETWEEN 50 AND 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 REENTER 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 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 MANUFACTURER' DIRECTIONS.

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 1.5 OZ. OF THIS PRODUCT WITH 100 GALLONS OF WATER.

FILTER BEDS SLIME CONTROL REMOVE FILTER FROM SERVICE, DRAIN TO A DEPTH OF 1 FOOT ABOVE FILTER SAND, AND ADD 80 OZ. OF PRODUCT PER 20 SQUARE FEET EVENLY OVER 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.

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 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. 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 1 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.

FOOD 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. THE SANITIZER TEMPERATURE SHOULD NOT EXCEED 120°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 USEDTO SANITIZE EGGS.

FRUIT & VEGETABLE WASHING THOROUGHLY CLEAN ALL FRUITS AND VEGETABLES IN 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 TWO 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.

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, THEN ADD SOAP OR DETERGENT. IMMERSE 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 PROVED 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 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 PREWASH PRIOR TO WASHING FABRICS AND CLOTHES IN THE REGULAR WASH CYCLE WITH GOOD DETERGENT. TEST THE LEVEL OF AVAILABLE CHLORINE. IF SOLUTION HAS BEEN ALLOWED TO STAND. ADD MORE OF THIS PRODUCT IF THE AVAILABLE CHLORINE LEVEL HAS DROPPED BELOW 200 PPM.

FARM PREMISES REMOVE ALL ANIMALS, POULTRY, AND FEED FROM PREMISES, VEHICLES, AND ENCLOSURES. REMOVE ALL LITTER AND MANURE FROM FLOORS, WALLS, AND SURFACES OF BARNS, PENS, STALLS, CHUTES, AND OTHER FACILITIES OCCUPIED OR TRANSVERSE 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 11 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.

DISINFECTION OF DRINKING WATER (EMERGENCY, PUBLIC, INDIVIDUAL SYSTEMS):

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 0.6 PPM IS ATTAINED THROUGHOUT THE DISTRIBUTION SYSTEM. CHECK WATER FREQUENCY WITH A CHLORINE TEST KIT. BACTERIOLOGICAL SAMPLING MUST BE CONDUCTED AT A FREQUENCY NO LESS THAN THAT PRESCRIBED BY THE NATIONAL INTERIM PRIMARY DRINKING WATER REGULATIONS. CONTACT YOUR LOCAL HEALTH DEPARTMENT FOR FURTHER DETAILS.

INDIVIDUAL SYSTEMS: DUG WELLS UPON COMPLETION OF THE CASING (LINING), WASH THE INTERIOR OF THE CASING (LINING) WITH A 100 PPM AVAILABLE CHLORINE SOLUTION USING A STIFF BRUSH. THIS SOLUTION CAN BE MADE BY THOROUGHLY MIXING 1 OZ. OF THIS PRODUCT INTO 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 WATER SYSTEMS: DRILLED, DRIVEN & BORED WELLS RUN PUMP UNTIL WATER IS AS FREE FROM TURBIDITY AS POSSIBLE. POUR A 100 PPM AVAILABLE CHLORINE SANITIZING SOLUTION INTO THE WELL. THIS SOLUTION CAN BE MADE BY THOROUGHLY MIXING 1 OZ. OF THIS PRODUCT INTO 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. 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 INTO THE WELL. CONSULT YOUR LOCAL HEALTH DEPARTMENT FOR FURTHER DETAILS.

INDIVIDUAL WATER SYSTEMS: FLOWING ARTESIAN WELLS ARTESIAN WELLS GENERALLY DO NOT REQUIRE DISINFECTION. IF ANALYSES INDICATE PERSISTENT CONTAMINATION, THE WELL SHOULD BE DISINFECTED. CONSULT YOUR LOCAL HEALTH DEPARTMENT FOR FURTHER DETAILS.

EMERGENCY DISINFECTION WHEN BOILING OF WATER FOR 1 MINUTE IS NOT PRACTICLE, 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 FOR SEVERAL TIMES.

SPAS, HOT TUBS, IMMERSION TANKS, ETC.:

SPAS AND HOT TUBS APPLY 5 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 5 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 8 OZ OF THIS PRODUCT PER 500 GALLONS OF WATER TO CONTROL ODOR AND ALGAE. DURING EXTENDED PERIODS OF DISUSE, ADD 3 OZ. OF PRODUCT DAILY PER 1000 GALLONS OF WATER TO MAINTAIN A 3 PPM CHLORINE CONCENTRATION.

HUBBARD AND IMMERSION TANKS ADD 5 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 5 OZ. TO A BUCKET OF WATER AND CIRCULATE THIS SOLUTION THROUGHOUT THE AGITATOR OF THE TANK FOR 15 MINUTES AND THEN RINSE OUT THE SOLUTION. CLEAN TANK THOROUGHLY AND DRY AND CLEAN CLOTHES. NOT APPROVED FOR THIS USE IN THE STATE OF CALIFORNIA.

HYDROTHERAPY TANKS ADD 1 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.

AQUACULTURAL USES:

FISH PONDS REMOVE FISH FROM PONDS PRIOR TO TREATMENT. THOROUGHLY MIX 104 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. POROUS EQUIPMENT SHOULD SOAK FOR ONE HOUR.

MAINE LOBSTER PONDS 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 600 PPM AVAILABLE CHLORINE. APPLY SO THAT ALL BARROWS, GATES, ROCK AND DAM ARE TREATED WITH PRODUCT. PERMIT HIGH TIDE TO FILL THE POND AND THEN CLOSE THE GATES. ALLOW WATER TO STAND FOR 2 TO 3 DAYS UNTIL THE AVAILABLE CHLORINE LEVEL REACHES ZERO. OPEN GATES AND ALLOW 2 TIDAL CYCLES TO FLUSH THE POND BEFORE RETURNING LOBSTERS TO POND.

CONDITIONING LIVE OYSTERS THOROUGHLY MIX 5 OZ. OF THIS PRODUCT TO 10,000 GALLONS OF WATER TO 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 APPROVED FOR THIS USE IN THE STATE OF CALIFORNIA.

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. 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.

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 HEMODIALYSATE SYSTEM ALLOWING FOR A MINIMUM CONTACT TIME OF 15 MINUTES OF 20 C. DRAIN SYSTEM OF THE SANITIZING SOLUTION AND THOROUGHLY RINSE WITH WATER. DISCARD AND DO NOT REUSE THE SPENT SANITIZER. RINSATE MUST BE MONITORED WITH A SUITABLE TEST KIT TO INSURE THAT NO AVAILABLE CHLORINE REMAINS IN THE SYSTEM. THIS PRODUCT IS RECOMMENDED FOR DECONTAMINATING SINGLE AND MULTI PATIENT 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 HEPATIC LABORATORIES, CDC, PHOENIX, AZ 85201. PLEASE NOTE: 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.

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 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 FOULED BOTTOM AREA, BUT NOT ALLOWING WATER TO ENTER ENCLOSED AREA. THIS ENVELOPE SHOULD CONTAIN APPROXIMATELY 500 GALLONS OF WATER TO 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 AS 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, 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 SPRINKLED WITH A WATERING CAN.

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 DOSE: 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 0.3, 0.25, OR 0.2) OF THIS INITIAL DOSE WHEN HALF (OR 0.3, 0.25, OR 0.2) OF THE WATER IN THE SYSTEM HAS BEEN LOST BY BLOWDOWN. SUBSEQUENT DOSE: 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 0.3, 0.25, OR 0.2) OF THIS INITIAL DOSE WHEN HALF (OR 0.3, 0.25, OR 0.2) 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 THE 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 DOSE: MAINTAIN THIS TREATMENT LEVEL BY STARTING A CONTINUOUS FEED OF 1 OZ. OF THIS PRODUCT PER 10,000 GALLONS OF WATER LOST BY BLOWDOWN TO MAINTAIN A 1 PPM RESIDUAL. BADLY FOULED SYSTEMS MUST BE CLEANED BEFORE TREATMENT IS BEGUN.

BRIQUETTES OR TABLETS INITIALLY SLUG DOSE THE SYSTEM WITH 52 OZ. OF THIS PRODUCT PER 10,000 GALLONS OF WATER IN THE SYSTEM. BADLY FOULED SYSTEMS MUST BE CLEANED BEFORE TREATMENT IS BEGUN. SUBSEQUENT DOSE: WHEN MICROBIAL CONTROL IS EVIDENT, ADD 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.

EMERGENCY DISINFECTION AFTER MAIN BREAKS:

MAINS BEFORE ASSEMBLY OF THE REPAIRED SECTION, FLUSH OUT MUD AND SOIL. PERMIT A WATER FLOW OF AT LEAST 2.5 FEET PER MINUTE TO CONTINUE UNDER PRESSURE WHILE INJECTING THIS PRODUCT BY MEANS OF A HYPOCHLORINATOR. STOP WATER FLOW WHEN A CHLORINE RESIDUAL TEST OF 50 PPM IS OBTAINED AT THE LOW PRESSURE END OF THE NEW MAIN SECTION AFTER A 24 HOUR RETENTION TIME. WHEN CHLORINATION IS COMPLETED, THE SYSTEM MUST BE FLUSHED FREE OF ALL HEAVILY CHLORINATED WATER.

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. THE 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 PRODUCT TO PROVIDE AT LEAST A 0.2 PPM CHLORINE RESIDUAL. 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 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 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 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 CONTAMINATING BY OVERFLOWING STREAMS, ESTABLISH HYPOCHLORINATING STARTING 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 20 OZ. OF PRODUCT PER 5 CU. FT. OF WATER TO OBTAIN 500 PPM AVAILABLE CHLORINE RESIDUAL, 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 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 80 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 A 24 HOUR RETENTION TIME. USE A CHLORINE TEST KIT.