

US ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF PESTICIDES PROGRAMS  
REGISTRATION DIVISION (TS-767)  
WASHINGTON, DC 20460

EPA REGISTRATION NO.

35085-2

DATE OF ISSUANCE

August 18, 1967

TERM OF ISSUANCE

NOTICE OF PESTICIDE:

REGISTRATION  
 REREGERISTRATION

Under the Federal Insecticide, Fungicide,  
and Rodenticide Act, as amended.

NAME OF PESTICIDE PRODUCT

Hex Sodium hypochlorite  
solution.

NAME AND ADDRESS OF REGISTRANT (SEE REGISTRATION NO.)

THE REGISTERED PESTICIDE IS THE  
PROPERTY OF THE REGISTRANT  
AND IS NOT TO BE USED FOR  
ANY OTHER PURPOSES.

NOTE: Changes in labeling formula, labeling or substantial changes 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 U.S. 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.

A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.

Registration in no way to be construed as an endorsement or approval of this product by this 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.

The registrant is advised that the registration of this pesticide is subject to the provisions of the Act and the regulations thereunder. The registrant is advised that the registration of this pesticide is subject to the provisions of the Act and the regulations thereunder. The registrant is advised that the registration of this pesticide is subject to the provisions of the Act and the regulations thereunder.

The pesticide label has been stamped approved and a copy is attached. The registrant is advised that any changes noted on the label must be submitted to the nearest ICI shipment within 1 year of the next label shipment, and however, this limit, this label must also appear on all shipments of this pesticide within 1 year of this notice of registration. If the next label shipment, whichever occurs first.

The registrant is advised that the registration of this pesticide is subject to the provisions of the Act and the regulations thereunder. The registrant is advised that the registration of this pesticide is subject to the provisions of the Act and the regulations thereunder. The registrant is advised that the registration of this pesticide is subject to the provisions of the Act and the regulations thereunder.

*[Signature]*  
Principal Manager (32)  
Antimicrobial Program Branch  
Registration Division (TS-767)

ENCLOSURE

ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL

DATE

**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 or goggles and rubber gloves when handling this product. Wash after handling. Avoid breathing vapor. Vacate poorly ventilated areas as soon as possible. Do not return until strong odors have dissipated.

**ENVIRONMENTAL HAZARDS**

This product is toxic to fish. Do not discharge into lakes, streams, ponds or public waterways unless in accordance with a NPDES permit. For information contact the regional office of the U.S. Environmental Protection Agency.

**PHYSICAL OR CHEMICAL HAZARDS**

**STRONG OXIDIZING AGENT.** Mix only with water according to label directions. Mixing this product with chemicals (e.g. ammonia, acids, detergents, etc.) or organic matter (e.g. urine, feces, etc.) will release chlorine gas which is irritating to eyes, lungs and mucous membranes.

Manufactured by

**WHITE ROX CHEMICAL CO.  
Phillipsburg, N.J. 08863**

EPA Reg. No. 35085-2  
EPA Est. No. 35085 N-J-2

NET CONTENTS 5 Gallons

**HBH**

**SODIUM HYPOCHLORITE SOLUTION**

ACTIVE INGREDIENT, Sodium Hypochlorite .....  
INERT INGREDIENT .....

**KEEP OUT OF REACH OF CHILDREN  
DANGER**

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 soap and water.

IF SWALLOWED, drink large quantities of milk or gelatin solution if available. Drink large quantities of water. DO NOT give vinegar or acids. DO NOT induce vomiting. Get prompt medical attention.

See additional precautions on side panel

ACCEPTED  
with COMMENTS  
M. E. ...

886 13 1388

Do not use as a disinfectant. Act as a disinfectant. Do not use as a pesticide. Do not use as a ...

**DIRECTIONS FOR USE**  
**GENERAL CLASSIFICATION**

**IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT  
IN A MANNER INCONSISTENT WITH ITS LABELING**

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

**SWIMMING POOL WATER DISINFECTION**

For a new pool or spring start-up, superchlorinate with 52 to 104 oz. of product for each 10,000 gallons of water to yield 5 to 10 ppm available chlorine by weight. Check the level of available chlorine with a test kit. Adjust and maintain pool water pH to between 7.2 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 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 manufacturers' instructions.

**HBH**

**SODIUM HYPOCHLORITE SOLUTION**

ACTIVE INGREDIENT, Sodium Hypochlorite 12.5%  
INERT INGREDIENT 87.5%

**KEEP OUT OF REACH OF CHILDREN**

**DANGER**

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 soap and 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.

See additional precautions on side panel.

Manufactured by

WHITE ROX CHEMICAL CO  
Phillipsburg, N.J. 08865

EPA Reg. No. 35085-2  
EPA Est. No. 35085 N-J-2

NET CONTENTS: 5 Gallons

ACCEPTED  
with COMMENTS  
by EPA on 11/13/88

DEC 13 1988

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended by the pesticide reform act of 1972, EPA Reg. No.

**PRECAUTIONARY  
HAZARDS TO HUMANS AND**

**DANGER: Corrosive, may cause severe burns to broken skin. Causes eye damage. Wear rubber gloves when handling this product. Avoid breathing vapor. Vacate poorly ventilated areas until strong odors have dissipated.**

**ENVIRONMENTAL**

This product is toxic to fish. Do not discharge into public waterways unless in accordance with EPA regulations. Contact the regional office of the U.S. Environmental Protection Agency for more information.

**PHYSICAL OR CHEMICAL**

**STRONG OXIDIZING AGENT**. Mix only with water. Mixing this product with chemicals (e.g., organic matter (e.g., urine, feces, etc.) will produce toxic gases to eyes, lungs and mucous membranes.

**STORAGE AND**

Store this product in a cool dry area, away from heat and sunlight. Avoid deterioration. In case of spill, flood area with water. Product or rinsates that cannot be used should be disposed in a sanitary sewer. Do not contact with skin during disposal or cleaning of equipment.

Rinse empty container thoroughly with water or discard by placing this container in a properly approved landfill.

EPC 13 1988

ACTIVE INGREDIENT:

SODIUM HYPOCHLORITE ..... 12.5%

INERT INGREDIENTS ..... 87.5%

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended by the pesticide control amendments, EPA Reg. No.

DIRECTIONS FOR USE

CIRCULAR NO. WR886-A

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 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.

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 insure that the available chlorine does not drop below 50 ppm. Prepare a 100 ppm sanitizing solution by thoroughly mixing 1 oz. of this product with 10 gallons of water. If no test kit is available, prepare a sanitizing solution by thoroughly mixing 2 oz. of this product with 10 gallons of water to provide approximately 200 ppm available chlorine by weight.

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

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

CIRCULAR NO. WR886-A

**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 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. Rinse system with potable water prior to use.

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

**SPRAY METHOD** - Pre-clean all surfaces after use. Use a 200 ppm available chlorine solution to control bacteria, mold or fungi and a 600 ppm solution to control bacteriophage. Prepare a 200 ppm sanitizing solution of sufficient size by thoroughly mixing the product in a ratio of 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, allow sanitizer to drain. Ventilate area for at least 2 hours. Prior to re-use equipment, rinse all surfaces treated with a 600 ppm solution with a 200 ppm solution.

**SANITIZATION OF FLEXIBLE FOOD CONTACT SURFACES**

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

**IMMERSION METHOD** - Prepare a sanitizing solution by thoroughly mixing, in an airtight tank, 6 oz. of this product with 10 gallons of water to provide approximately 600 ppm available chlorine by weight. Clean equipment in the normal manner. Prior to use, immerse equipment in the sanitizing solution for at least 2 minutes and allow the sanitizer to drain. Rinse equipment with water after treatment.

**SPRAY/FOG METHOD** - Pre-clean all surfaces after use. Prepare a 600 ppm available chlorine sanitizing solution of sufficient size by thoroughly mixing the product in 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

## SANITIZATION OF NONPOROUS NON-FOOD CONTACT SURFACES

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

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

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

## SANITIZATION OF POROUS NON-FOOD CONTACT SURFACES

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

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

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

# WHITE ROX CHEMICAL COMPANY 7 6

## SODIUM HYPOCHLORITE SOLUTION

### ACTIVE INGREDIENT:

SODIUM HYPOCHLORITE ..... 12.5%

INERT INGREDIENTS ..... 87.5%

### DIRECTIONS FOR USE

ACCEPTED  
with COMMENT  
in EPA 700/1-80-010

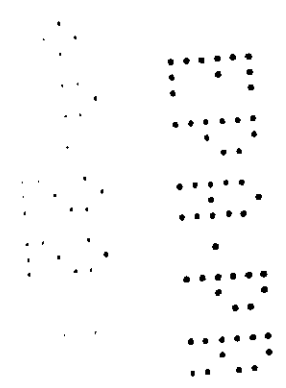
CIRCULAR NO. WR886-B

13 1986

Commercial Laundry Sanitizers.

Use only in accordance with  
the instructions on the label.  
Caution: This is a potent  
oxidizer and may cause  
bleaching of fabrics.

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 wash prior to washing fabrics/clothes in the regular wash cycle with a good detergent. Test the level of available chlorine, if solution has been allowed to stand. Add more of this product if the available chlorine level has dropped below 200 ppm.



# WHITE ROX CHEMICAL COMPANY SODIUM HYPOCHLORITE SOLUTION

## ACTIVE INGREDIENT

SODIUM HYPOCHLORITE ..... 12.5%

INERT INGREDIENTS ..... 87.5%

ACCEPTED

with COMMENTS

DATE OF YOUR USE

CIRCULAR NO. WR886-C

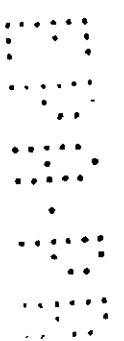
AGRICULTURAL USES

Use of this product is  
permitted under the Act as  
amended by the pesticide  
control act of 1972, No.

**FRUIT AND VEGETABLES:** Fruit and vegetables 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 100 gallons of produce. The ready mix level of this product is 2 gallons of water to obtain 500 ppm available chlorine.

**FRUIT AND VEGETABLES:** Thoroughly clean all fruits and vegetables in a sink tank. The ready mix level of this product in 100 gallons of water to obtain 500 ppm available chlorine. The sanitizing temperature should be between 100 and 120 degrees Fahrenheit. The sanitizing solution should be thoroughly agitated. Allow the produce to soak in the sanitizing solution for 2 minutes. In a separate water tank, the produce should be thoroughly rinsed with water.

**FRUIT AND VEGETABLES:** Thoroughly clean all fruits and vegetables in a sink tank. The ready mix level of this product in 100 gallons of water to obtain 500 ppm available chlorine. After draining the tank, immerse fruit and vegetables for 2 minutes in a second water tank containing the sanitizing solution. Spray rinse vegetables with the sanitizing solution prior to packaging. Rinse fruit with potable water only prior to packaging.





# WHITE ROX CHEMICAL COMPANY SODIUM HYPOCHLORITE SOLUTION

## ACTIVE INGREDIENT:

SODIUM HYPOCHLORITE ..... 12.5%  
INERT INGREDIENTS ..... 87.5%

ACCEPTED  
with COMMENTS  
by EPA Letter # 1-10-74

Rev. 1-13-1980

## DEFINITIONS FOR USE

CIRCULAR NO. WR886-D

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

### DISINFECTING OF DRINKING WATER (EMERGENCY/PUBLIC/INDIVIDUAL SYSTEMS)

**EMERGENCY USES:** 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 frequently with a chlorine test kit. Bacteriological sampling must be conducted at a frequency no less than that prescribed by the National Interim Primary Drinking Water Regulations. Contact your local Health Department for further details.

**INDIVIDUAL SYSTEMS: DUG WELLS** Upon completion of the casing (lining) wash the interior of the casing (lining) with a 100 ppm available chlorine solution using a chlorinator. This solution can be made by thoroughly mixing 1 oz. of this product with 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 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 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.

## CIRCULAR NO. WR886-D

**EMERGENCY DISINFECTION** - When boiling of water for 1 minute is not practical, water can be made potable by using this product. Prior to addition of the sanitizer, remove all suspended material by filtration or by allowing it to settle to the bottom. Decant the clarified, contaminated water to a clean container and add 1 drop of this product to 20 gallons of water. Allow the treated water to stand for 30 minutes. Properly treated water should have a slight chlorine odor; if not, repeat dosage and allow the water to stand an additional 15 minutes. The treated water can then be made palatable by pouring it between clean containers for several times.

### PUBLIC WATER SYSTEMS

**RESERVOIRS** - ALGAE CONTROL - Hypochlorinate streams feeding the reservoir. Suitable feeding points should be selected on each stream at least 50 yards upstream from the points of entry into the reservoir.

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

**NEW TANKS, BASINS, ETC.** - Remove all physical soil from surfaces. Place 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 21 oz. of this product for each 5 cubic feet capacity (approximately 500 ppm available chlorine). Fill to working capacity and let stand at least 4 hours. Drain and 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.

### 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

## CIRCULAR NO. WR886-D

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. Aggitate 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 5 oz. of product per 5 sq. 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 product residual is not suitable, spray a film on the equipment with a solution containing 5 oz. of this product for each 5 gallons of water (100 ppm available chlorine). Allow to stand for 2 to 4 hours, flush and return to service.

FILTERS - When the sand filter needs replacement, apply 8 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 3 oz. per 5 sq. ft. Water should stand at a depth of 1 ft. or above the surface of the filter bed for 4 to 24 hours. When filter bed can be backwashed of mud and silt, apply 2 oz. of this product per each 50 sq. ft., allowing the water to stand at a depth of 1 ft. or 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 SYSTEMS - Flows required to be replaced with water. Flush the system with water, start and apply sufficient product until a consistent available chlorine residual of at least 10 ppm remains after a 24 hour retreating time. Use a chlorine test kit.

### EMERGENCY DISINFECTION AFTER FIRES

CHLORINATION OF EMERGENCY DISTRIBUTIONS - Hydraulic pressure 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 available 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 water after 5 minutes. This solution is made by mixing 5 oz. of this product for each 10 gallons of water. During the filling of the containers, dose with sufficient amounts of this 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 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.

## SWIMMING POOL WATER DISINFECTION

For a new pool or spring start-up, superchlorinate with 52 to 104 oz. of product for each 10,000 gallons of water to yield 5 to 10 ppm available chlorine by weight. Check the level of available chlorine with a test kit. Adjust and maintain pool water pH to between 7.2 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 11 oz. of this product for each 10,000 gallons of water to yield an available chlorine residual between 0.5 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. In hot weather, pool water chlorine residual is between 1.5 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. In hot weather, the pool within 24 hours prior to discharge.

**WINTERING 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 manufacturers' instructions.

## HEAT, HOT-TUBS, IMMERSION TANKS, ETC.

**HEAT TREATERS** - 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. Iron pills, 1/2 cups, frumones, cleaners, etc., may cause staining of 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 color and algae.

During extended periods of in-use, add 1 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 through the agitator of the tank for 15 minutes and then rinse out the solution. Clean tank thoroughly and dry with clean cloths.

HYDROLYSE™ SPA'S - 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 for 12 hours daily, and clean before refilling.

# WHITE ROX CHEMICAL COMPANY SODIUM HYPOCHLORITE SOLUTION

ACTIVE INGREDIENT

SODIUM HYPOCHLORITE

12.5%

INERT INGREDIENTS

87.5%

ACCEPTED

BY THE FEDERAL GOVERNMENT

REGISTERED UNDER

15 U.S.C.

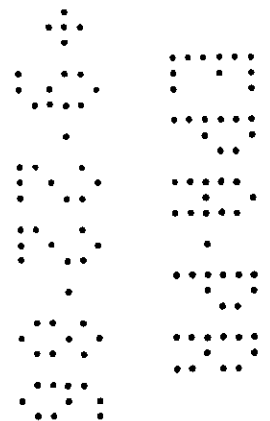
CIRCULAR NO. WR886-E

For information only. Do not  
use on surfaces. Act as  
disinfectant on hard surfaces.  
Do not use on fabrics or  
other porous surfaces.

DO NOT USE ON FABRICS OR OTHER POROUS SURFACES.

**50% SOLUTION** - To prepare a 1% disinfecting solution, by the dry method, mix 1 part of 50% solution with 49 parts of water to provide approximately 1 part available chlorine weight. Clean equipment in the normal manner. Then to use, rinse all surfaces thoroughly with the disinfecting solution, maintaining contact with the surface for at least 10 minutes. Rinse the clean equipment with water after treatment and do not use equipment directly to

**10% SOLUTION** - To prepare a 1% disinfecting solution by the dry method, mix 10 parts of 10% solution with 90 parts of water to provide approximately 1 part available chlorine weight. Clean equipment in the normal manner. Then to use, rinse the equipment in the normal manner for at least 10 minutes and all water sanitation facilities. Rinse the clean equipment with water after treatment.



# WHITE ROX CHEMICAL COMPANY SODIUM HYPOCHLORITE SOLUTION

ACTIVE INGREDIENT:  
SODIUM HYPOCHLORITE ..... 12.5%  
INERT INGREDIENTS ..... 87.5%

ACCEPTED  
WITH COMMENTS

1-13-1988

DIRECTIONS FOR USE

For use in the treatment of  
wastewater. Active  
ingredient: Sodium hypochlorite  
solution. EPA Reg. No.

CIRCULAR NO WR886-F

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 samples collected over below the maximum permitted by the controlling regulatory jurisdiction.

The degree of 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 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 control requirements, should be the final and primary standard and the chlorine residual should be considered an operating standard valid only to the extent controlled by the chlorine quality of the effluent.

In addition, the critical factors affecting wastewater disinfection are:

1. Mixing: It is imperative that the product and the wastewater be thoroughly and completely first mixed to a fine mixture with every chemically active soluble and particulate component of the effluent.

2. Flow: In a flow-through system, the flow through the system must be controlled.

3. Chlorine Residual: Chlorine residual transfer is extremely important component of chlorine demand to maintain a constant chlorine residual level. Generally, effluent should contain 0.5 ppm chlorine residual after a 15 minute contact period. A minimum chlorine residual of 0.5 ppm should be maintained at all times.

SEWAGE & WASTEWATER TREATMENT

PREPARATION OF 10% SOLUTION - Apply a 100 to 1 (10% available chlorine solution) at a rate of 100 to 1000 gallons per day. Prepare this solution by mixing 100 to 1000 gallons of this product with 100 gallons of water. (If a control is evident, apply a 15 ppm available chlorine solution. Prepare this solution by mixing 1 oz. of this product with 100 gallons of water.

# WHITE ROX CHEMICAL COMPANY SODIUM HYPOCHLORITE SOLUTION

## ACTIVE INGREDIENTS

SODIUM HYPOCHLORITE ..... 12.5%

INERT INGREDIENTS ..... 87.5%

DIRECTIONS FOR USE

ACCEPTED  
WITH COMMENTS  
EPA Reg. No. 7211-1-100-4

July 1986

CIRCULAR NO WR886-G

COOLING WATER, EVAPORATIVE CONDENSER WATER

White Ox Chemical Company  
1700 West 10th Street  
Chicago, Illinois 60608  
EPA Reg. No. 7211-1-100-4

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

**Subsequent 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 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.

**START UP Dose:** - 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 the treatment level by starting a continuous feed of 11 oz. of this product per 10,000 gallons of water or by 11 oz. to maintain a 1 ppm residual. Badly fouled systems must be cleaned before treatment is begun.

