

266-2002

4-10-2008

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

April 10, 2008

Richard Hill
Hill Brothers Chemical Company
1675 North Main Street
Orange, CA. 92867-3499

Subject: Application for Amendment dated: January 7, 2008
Sodium Hypochlorite Solutions 10%
EPA Registration 266-20002

Dear Sir:

The Agency has reviewed your submission in accordance with continuing registration under the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as amended, and determined the action to be acceptable with comments. In summary, the following changes must be made:

- Under Precautionary Statements, change corrosive to Highly corrosive. Delete second sentence and change "causes eye damage" to causes irreversible eye damage and skin damage. Revise "do not get in eyes, skin or clothing" to read do not get in eyes, on skin, or on clothing. Revise "wash after handling" to read Wash thoroughly with soap and water before handling and before eating, drinking, chewing gum, using tobacco or using the toilet. After avoid breathing vapors add "and use in well ventilated areas."
- Under net contents change (Not for swimming pool use) to **(Not for use in swimming pools, spas, hot-tubs, immersion tanks, or any other residential use)**. This restriction on your 6 gallon size must be in boldface type;
- Change Inert Ingredients to Other Ingredients; and,
- Correct spelling of "treatment".

A copy of our stamped accepted with comments label is enclosed. Submit a revised finished label to the Agency for our files. If you have any questions concerning this letter, please contact Tom Luminello by telephone, (703) 308-8075, or by e-mail at luminello.tom@epa.gov.

Sincerely,

Emily Mitchell
Emily H. Mitchell, Product Manager 32
Regulatory Management Branch II
Antimicrobials Division (7510-P)

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

Wash thoroughly with soap and water after handling and before eating, drinking, chewing tobacco or using the toilet.

DANGER: *Highly corrosive, irreversible and skin damage.*
May cause severe skin irritation or chemical burns to broken skin. Causes eye damage. Do not get in eyes, skin or 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.

ENVIRONMENTAL HAZARDS: This pesticide is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, estuaries, oceans, or public waters unless in accordance with the requirements of the National Pollutant Discharge Elimination Systems (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 sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

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 will release hazardous gases irritating to eyes, lungs and mucous membranes.

- NET CONTENTS:**
- 6 GALLONS (Not for swimming pool use)
 - 13 GALLONS
 - 50 GALLONS
 - 250 GALLONS
 - 300 GALLONS

Bold spas, hot-tubs, immersion tanks, or any other residential use

The product in this container has been packaged and labeled in strict compliance with applicable federal and local laws and regulations in effect at the time of packaging and it may not be repackaged in any container without prior written permission from the administrative office of Hill Brothers. Repackaging without permission places responsibility for any subsequent loss and/or claim solely on the re-packer. The information contained hereon is based on data considered accurate, but no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. User of the product assumes the risk in the use of this material.

Manufactured by
HILL BROTHERS CHEMICAL COMPANY
4450 N. 42nd Ave., Phoenix, AZ 85019 (602) 272-9363
FOR 24 HOUR EMERGENCY INFORMATION CALL CHEMTREC (800) 424-9300
Branch Locations: Industry, San Jose, CA; Phoenix, Tucson, AZ; San Antonio, TX

SODIUM HYPOCHLORITE 10%

ACTIVE INGREDIENTS:	% BY WT.
SODIUM HYPOCHLORITE.....	10.0%
INERT INGREDIENTS.....	90.0%
TOTAL.....	100.0%

other use in well ventilated areas.

**KEEP OUT OF REACH OF CHILDREN
DANGER**

FIRST AID	
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a Poison Control Center or Doctor for advice.
If on skin or clothing	<ul style="list-style-type: none"> • Remove contaminated clothing • Rinse immediately with water for 15-20 minutes
If swallowed	<ul style="list-style-type: none"> • Call poison control or doctor immediately for treatment or advice. • Have 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.
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If breathing has stopped, call 911 or an ambulance, start artificial respiration, preferably mouth-to-mouth if possible.
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.	

Treatme

EPA Reg. No. 266-20002
EPA EST. NO. 266-AZ-1

DIRECTIONS FOR USE

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

FOR SWIMMING POOL SANITATION AND INDUSTRIAL DISINFECTION AND SANITATION

Refer to Hill Brothers' Supplemental Sodium Hypochlorite Usage Bulletin for additional directions for use and storage and disposal instructions.

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 or rinsates that cannot be used should be diluted with water before disposal in a sanitary sewer. Do not contaminate food or feed by storage, disposal or cleaning of equipment. Refillable Container. Refill this container with Sodium Hypochlorite only. Do not reuse this container for any other purpose.

APR 10 2008

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended for the year 2002

266-20002

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SODIUM HYPOCHLORITE SOLUTIONS - 10% (End Use)

Supplemental Usage Bulletin

<u>ACTIVE INGREDIENT</u>	<u>% BY WT.</u>
SODIUM HYPOCHLORITE.....	10.0%
INERT INGREDIENTS.....	90.0%
TOTAL.....	100%

Other

KEEP OUT OF REACH OF CHILDREN
DANGER

FIRST AID	
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a Poison Control Center or Doctor for advice.
If on skin or clothing	<ul style="list-style-type: none"> • Remove contaminated clothing • Rinse immediately with water for 15-20 minutes
If swallowed	<ul style="list-style-type: none"> • Call poison control or doctor immediately for treatment or advice. • Have 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.
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If breathing has stopped, call 911 or an ambulance, start artificial respiration, preferably mouth-to-mouth if possible.
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.	

ACCEPTED
with COMMENTS
in EPA Letter Dated:

APR 10 2008
Under the Federal Insecticide,
Fungicide, and Rodenticide Act as
amended, for the pesticide,
registered under EPA Reg. No.

266-20003

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, skin or 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.

ENVIRONMENTAL HAZARDS: This pesticide is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, estuaries, oceans, or public waters unless in accordance with the requirements of the National Pollutant Discharge Elimination Systems (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 sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

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 will release hazardous gases irritating to eyes, lungs and mucous membranes.

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DIRECTIONS FOR USE

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

To achieve available chlorine (By Weight)	Gallons Water	Add liquid ounces of 10% Sodium Hypochlorite
5 PPM	100	.6
10 PPM	100	1.2
15 PPM	100	2.0
25 PPM	100	3.0
35 PPM	100	4.0
50 PPM	100	6.0
100 PPM	10	1.2
200 PPM	10	2.5
500 PPM	10	6.0
600 PPM	10	7.0
1000 PPM	10	12.0
5000 PPM	10	58
10,000 PPM	10	116

ACCEPTED with COMMENTS in EPA Letter Dated: APR 10 2008

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

266-2000

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, super-chlorinate with 60 to 120 oz. of product for each 10,000 gallons of water to yield 5 to 10 ppm available chlorine by weight. Check the level of available chlorine with a test kit. Adjust and maintain pool water pH to between 7.2 and 7.6. Adjust and maintain the alkalinity of the pool to between 50 to 100 ppm.

To maintain the pool, add manually or by a feeder device 12 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, super-chlorinate the pool with 60 to 120 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 4 oz. of product per 1,000 gallons, while filter is running, to obtain a 3 ppm available chlorine residual, as determined by a suitable test kit. Cover pool, prepare heater, filter and heater components for winter by following manufacturer's instructions.

SPAS, HOT-TUBS, IMMERSION TANKS, ETC.

SPAS/HOT-TUBS — Apply 6 oz. of product per 1,000 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. Reentry is prohibited above the level of 5 ppm chlorine due to risk of bodily injury.

To maintain the water, apply 6 oz. of product per 1,000 gallons of water over the surface to maintain a chlorine concentration of 5 ppm.

After each use, shock treat with 10 oz. of this product per 500 gallons of water to control odor and algae. During extended periods of disuse, add 4 oz. of product daily per 1,000 gallons of water to maintain a 3 ppm chlorine concentration.

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SANITIZATION OF POROUS FOOD CONTACT SURFACES 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 7 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 2.5 oz. of this product with 10 gallons of water.

SANITIZATION OF NONPOROUS FOOD CONTACT SURFACES SPRAY/FOG METHOD

Pre-clean all surfaces after use. Use a 200 ppm available chlorine solution to control bacteria, mold or fungi and a 600 ppm solution to control bacteriophage. Prepare a 200 ppm sanitizing solution of sufficient size by thoroughly mixing the product in a ratio of 2.5 oz. product with 10 gallons of water. Prepare a 600 ppm solution by thoroughly mixing the product in a ratio of 7 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.

DISINFECTION OF DRINKING WATER (POTABLE)

PUBLIC SYSTEMS: Mix a ratio of 1 oz. of this product to 100 gallons of water. Begin feeding this solution with a hypo-chlorinator until a free available chlorine residual of at least 0.2 ppm and no more than 0.6 ppm is attained throughout the distribution system. Check water frequently with a chlorine test kit. Bacteriological sampling must be conducted at a frequency no less than that prescribed by the National Primary Drinking Water Regulations. Contact your local Health Department for further details.

INDIVIDUAL SYSTEMS: DUG WELLS: Upon completion of the casing (lining) wash the interior of the casing (lining) with a 100 ppm available chlorine solution using a stiff brush. This solution can be made by thoroughly mixing 1.5 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.

SEWAGE AND 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 bacteria 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 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.

RECEIVED
with COMMENTS
EPA Letter Dated:
APR 10 2008

Under the Federal Insecticide,
Fungicide, and Rodenticide Act as
amended, for the pesticide, 266,
registered under EPA Reg. No. 2000.

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SEWAGE AND WASTEWATER TREATMENT

EFFLUENT SLIME CONTROL - Apply a 100 to 1,000 ppm available chlorine solution at a location which will allow complete mixing. Prepare this solution by mixing 12 to 130 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 2.0 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 130 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.

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.

COOLING TOWER/EVAPORATIVE CONDENSER WATER

SLUG FEED METHOD - Initial Dose: When system is noticeably fouled, apply 60 to 120 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 12 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 60 to 120 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 12 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 60 to 120 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 1.5 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 - Initial Dose: Initially slug dose the system with 65 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 12 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.

COMMERCIAL LAUNDRY SANITIZERS

Wet fabrics or clothes should be spun dry prior to sanitation. Thoroughly mix 2.5 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.

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APR 10 2008

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registered under EPA Reg. No.

266-20002

7/7

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 or rinsates that cannot be used should be diluted with water before disposal in a sanitary sewer. Do not contaminate food or feed by storage, disposal or cleaning of equipment.

Refillable container. Refill this container with Sodium Hypochlorite only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

Manufactured by:

HILL BROTHERS CHEMICAL COMPANY

4450 N. 42nd Ave., Phoenix, AZ 85019 (602) 272-9363

FOR 24 HOUR EMERGENCY INFORMATION CALL CHEMTREC: (800) 424-9300

Locations

City of Industry, San Jose, CA; Phoenix, Tucson, AZ; Salt Lake City, UT

Reg. No. (266-20002)

EPA EST. NO. 266-AZ-1

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266-20002