



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

Paul A Taubler
Regulatory Affairs Manager
Kuehne Chemical Company, Inc.
c/o Agent: David H. Dawe
D.H. Dawe & Associates, Inc.
16841 Four Seasons Dr.
Dumfries, VA 22025

Subject:

**SODIUM HYPOCHLORITE SOLUTION 14%** 

EPA Registration No. 35317-6 Application Date: August 24, 2012 Receipt Date: September 05, 2012

Dear Mr. Dawe:

This acknowledges receipt of your Notification submitted under the provision of PR Notice 98-10, and FIFRA section 12(a) (1) (c).

#### **Proposed Notification:**

Registrant is submitting label language changes in response to Agency request.

#### **General Comment:**

Based upon a review of the material submitted, the label changes are in compliance with PR Notice 91-2 and in agreement with the label requirements.

Should you have any questions or comments concerning this letter, you may contact me by telephone at (703) 308-0410 or by e-mail at <a href="mailto:harris.monisha@epa.gov">harris.monisha@epa.gov</a>. or Glen McLeod by telephone at (703) 347-0181 or by e-mail at <a href="mailto:mcleod.glen@epa.gov">mcleod.glen@epa.gov</a>. When submitting information or data in response to this letter, a copy of this letter should accompany the submission to facilitate processing.

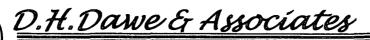
Sincerely

Monisha Harris

Product Manager (32)

Regulatory Management Branch II Antimicrobials Division (7510P)

Please read instructions on reverse before compl-	Fe	Approved. OMB No. 20	ر 70-0060. Approval expires 2-28-95	
SEPA Environmental Pro	otection Agency	Registration Amendmen X Other	n OPP Identifier Number	
Appl	ication for Pesticide - Se	ection I		
Company/Product Number	2. EPA Product Ma		3. Proposed Classification	
35317-6	M. Harris		X None Restricted	
4. Company/Product (Name)	PM# 32		- A resulting	
Sodium Hypochlorite Solution, 14%  5. Name and Address of Applicant (Include ZIP Code)		eview. In accordance wi	th FIFRA Section 3(c)(3)	
Kuehne Chemical Company, Inc. 86 N. Hackensack Avenue South Kearney, NJ 07032-4675	(b)(i), my produc to: EPA Reg. No.	t is similar or identical in	composition and labeling	
Check if this is a new address	Product Name	) <del></del>		
	Section - II			
Amendment - Explain below.  Resubmission in response to Agency letter dated  X Notification - Explain below.	Agency let	Final printed labels in response to Agency letter dated 8/5/2009  "Me Too" Application.  Other - Explain below.		
Notification of label language changes and additions per PF This notification is consistent with the provisions of PR Noti- labeling or the confidential statement of formula of this prod EPA. I further understand that if this notification is not consi FIFRA and I may be subject to enforcement action and pen	ce 98-10 and EPA regulations at 40 CF uct. I understand that it is a violation of stent with the terms of PR Notice 98-10	18 U.S.C. Sec. 1001 to will and 40 CFR 152.46, this p	fully mal:e any false statement to	
	Section - III	<del></del>	· · · · · · · · · · · · · · · · · · ·	
1. Material This Product Will Be Packaged In:				
Child-Resistant Packaging  Yes No  * Certification must be submitted  Unit Packaging  Yes No  If "Yes" Unit Packaging wgt.  Control  Void Packaging		2. Type of Conta	al tic ss	
	(s) Retail Container	5. Location of Label Direct On label. On label accompar		
6. Manner in Which Label is Affixed to Product	Lithograph Paper glued Stenciled	_ <del></del>		
<u> </u>	Section - IV			
1. Contact Point (Complete items directly below for identifi	cation of individual to be contacted, if n	ecessary, to process this ap	oplication.)	
Name David H. Dawe	Title Senior Regulatory Specialis	Telephone No. (မြာငါဖွဲ့မှ Area Code gulatory Specialist - ကိုပ်ဘုံနှံ့မှန်-6500 ်ငင်အင်		
I certify that the statements which I have made on this for I acknowledge that any knowingly false or misleading state both under applicable law.	tement may be punishable by fine or im	prisonment or	(Stamped)	
2. Signature	3. Title  Agent (D.H. Dawe & Asso	ငင်င် ociates, LLC.)	C C	
4. Typed Name	5. Date		CC C C C C C C	
David H. Dawe	8/24/12		<b>.</b> (()	



16841 Four Seasons Dr. "Science applied to business for Success"
Dumfries, VA 22025
Phone (703) 590-7570
Cell (559) 960-2245
E-mail:dhdawe@dhdawe.com

August 24, 2012

Ms. Monisha Harris
Document Processing Desk (NOTIF)
Office of Pesticide Programs (7504P)
U.S. Environmental Protection Agency
One Potomac Yard
2777 S. Crystal Drive
Arlington, VA 22202

Re: Notification consistent with PR Notice 98-10 Regading label language changes and additions (Reg. No. 35317-6)

Dear Ms. Harris:

On behalf of Kuehne Chemical Company, Inc. D.H. Dawe & Associates, LLC. is submitting a notification consistent with PR Notice 98-10 that changes selected label language, adds label language, and responds to EPA requested label changes. Enclosed please find two copies of the label and circulars (one highlighted to show changes), an application, and a copy of Kuehne's letter designating D. H.Dawe & Associates, LLC. as the agent for Kuehne Chemical Co., Inc.

Should you have any questions, please let me know.

David H. Dawe

D.H. Dawe & Associates, LLC. (Agent)

Enclosure

Phone:

(973) 589-0700

(973) 589-4866 Fax:

# 86 North Hackensack Avenue, South Kearny, New Jersey 07032-4673 SODIUM HYPOCHLORITE SOLUTION

# 14% BY WEIGHT CIRCULARS

ACTIVE INGREDIENT:	
SODIUM HYPOCHLORITE	14%
OTHER INGREDIENT:	86%
TOTAL	100%
*Available chlorine: 13.33%	

# CIRCULAR NO. K587A

# SANITIZATION OF HARD NONPOROUS SURFACES

DIRECTIONS FOR USE

# 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 sanitizing solution of approximately 100 ppm 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 reused 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 pm available chlorine must be tested and adjusted periodically to insure that the available chlorine does not drop below 50 ppm. Prepare a sanitizing solution of approximately 100 ppm by thoroughly mixing 1 oz. of this product with 10 gallons of water. If no feet 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

5/14

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 reused 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 approximately 200 ppm available chlorine sanitizing solution equal to 110% of volume capacity of the equipment by mixing the product in a ratio of 2 oz. product with 10 gallons of water. Pump solution through the system until full flow is obtained at all extremities, the system is completely filled with the sanitizer and all air is removed from the system. Close drain valves and hold under pressure for at least 2 minutes to insure contact with all internal surfaces. Remove some cleaning solution from drain valve and test with a chlorine test kit. Repeat entire cleaning/sanitizing process if effluent contains less than 50 ppm available chlorine.

#### **CLEAN-IN-PLACE METHOD**

Thoroughly clean equipment after use. Prepare a sanitizing solution of approximately 200 ppm available chlorine 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 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. Rinse system with potable water prior to use.

#### SPRAY/FOG METHOD

Pre-clean all surfaces prior to use of the product. Use a 200 ppm available chlorine solution to control bacteria, mold or fungi and a 600 ppm solution to control bacteriophage. Prepare a sanitizing solution of approximately 200 ppm of sufficient size by thoroughly mixing the product in a ratio of 2 oz. product with 10 gallons of water. Prepare a sanitizing solution of approximately 600 ppm by thoroughly mixing the product in a ratio of 6 oz. product with 10 gallons water. Use spray/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 untillewet, 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

Revised 8/20/12

with the sanitizing solution, maintaining contact with the sanitizer for at least 2 minutes. Do not rinse equipment with water after treatment and do not soak equipment overnight.

#### **IMMERSION METHOD**

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

## SPRAY/FOG METHOD

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

# CIRCULAR NO. K587B

# **COMMERCIAL LAUNDRY SANITIZERS**

**DIRECTIONS FOR USE** 

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 approximately 200 ppm available chlorine. Promptly after mixing the sanitizer, add the solution into the pre-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 has dropped below 200 ppm.

# CIRCULAR NO. K587C

# AGRICULTURAL USES

**DIRECTIONS FOR USE** 

#### POST HARVEST PROTECTION

Potatoes can be sanitized after cleaning and prior to storage by specifically ing 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 approximately 500 ppm available chlorine.

### **FOOD EGG SANITIZATION**

Thoroughly clean all eggs. Thoroughly mix 2 oz. of this product with 10 gallons of warm water to produce a solution containing approximately 200 ppm available chlorine solution. The sanitizer temperature should not exceed 130° F. Spray the warm sanitizer so that the eggs are thoroughly wetted. Allow the eggs to thoroughly dry before casing or breaking. Do not apply a potable water rinse. The solution should not be reused to sanitize eggs.

## FRUIT & VEGETABLE WASHING

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

# CIRCULAR NO. K587D

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

**DIRECTIONS FOR USE** 

### **PUBLIC SYSTEMS**

Mix a ratio of 1 oz. of this product to 100 gallons of water. Begin feeding this solution with a hypochlorinator until 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 solution containing approximately 100 ppm available chlorine 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 disinfecting solution into the well through both the pipe sleeve opening and the pipeline. Wash the exterior of the pump cylinder also with the disinfecting 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 per partment for further details.

### INDIVIDUAL WATER SYSTEMS: DRILLED, DRIVEN & BORED WELLS

Run pump until water is as free from turbidity as possible. Pour a disinfecting solution containing approximately 100 ppm available chlorine 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 disinfectant into

the rock formation. Wash the exterior of pump cylinder with the disinfectant. 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 disinfectant to the well. Consult your local Health Department for further details.

### INDIVIDUAL WATER SYSTEMS: FLOWING ARTESIAN WELLS

Artesian wells generally do not require disinfection. If analyses indicate persistent contamination, the well should be disinfected. Consult your local Health Department for further details.

#### **EMERGENCY DISINFECTION**

When boiling of water for 1 minute is not practical, water can be made potable by using this product. Prior to addition of the sanitizer, remove all suspended material by filtration or by allowing it to settle to the bottom. Decant the <u>clarified</u>, 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 <u>will</u> have a slight chlorine odor, if not, repeat dosage and allow the water to stand an additional 15 minutes. The treated water can then be made palatable by pouring it between clean containers several times.

#### **PUBLIC WATER SYSTEMS**

#### **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 to the reservoir.

#### **MAINS**

Thoroughly flush section to be disinfected 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 any physical soil from surface. Place 20 oz. of this product for each 5 cubic feet of working capacity (approximately 500 ppm available chlorine). Fill to working capacity and allow to stand for at least 4 hours. Drain and flush with porable 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 disinfecting 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. Disinfect 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 solution containing approximately 500 ppm available chlorine. 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 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 20 oz. of product per 5 cubic feet of water to obtain 500 ppm available chlorine, as determined by a suitable test kit. After 24 hours drain, flush, and return to service. If the previous method is not suitable, spray or flush the equipment with a solution containing 5 oz. of this product for each 5 gallons of water (approximately 1000 ppm available chlorine). Allow to stand for 2 to 4 hours, flush and return to service.

#### **FILTERS**

When the sand filter needs replacement, apply 80 oz. of this product for each 150 to 200 cubic feet of sand. When the filter is severely contaminated, additional product should be distributed over the surface at the rate of 80 oz. per 20 square feet. Water

# CIRCULAR NO. K587E

# DISINFECTION OF NONPOROUS NON-FOOD CONTACT SURFACES DIRECTIONS FOR USE

## **RINSE METHOD**

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

#### **IMMERSION METHOD**

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

# CIRCULAR NO. K587F

# SEWAGE & WASTEWATER EFFLUENT TREATMENT DIRECTIONS FOR USE

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, and confirming that the MPN 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 a 15 minute contact time. 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 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 instantanted under 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 a 15 minute contact time.

#### SEWAGE AND WASTEWATER TREATMENT

### **EFFLUENT SLIME CONTROL**

Apply a 100 to 1000 ppm available chlorine solution at a location which will allow complete mixing. Prepare this solution by mixing 10 to 100 oz. of this product with 100 gallons of water. Once control is evident, apply a solution containing approximately 15 ppm available chlorine. Prepare this solution by mixing 3 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 80 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.

#### PULP AND PAPER MILL PROCESS WATER SYSTEMS

#### **SLUG FEED METHOD**

<u>Initial Dose:</u> 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.

<u>Subsequent Dose:</u> 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 chiorine. 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 been lost by blowdown. Badly fouled systems must be cleaned before treatment is begun.

#### **CONTINUOUS FEED METHOD**

<u>Initial Dose:</u> 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.

<u>Subsequent Dose:</u> 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 residual of approximately 1 ppm. Badly fouled systems must be cleaned before treatment is begun.

# CIRCULAR NO. K587G

# **COOLING TOWER & EVAPORATIVE CONDENSER WATER**

**DIRECTIONS FOR USE** 

### **SLUG FEED METHOD**

<u>Initial Dose:</u> 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.

<u>Subsequent Dose:</u> 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:**

<u>Initial Dose:</u> 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.

<u>Subsequent Dose:</u> When microbial control is evident, add 11 oz. of this product per 10,000 gallons of water in the system to obtain a 1 ppm residual. Apply half (or 1/3, 1/4, or 1/5) of this initial dose when half (or 1/3, 1/4, or 1/5) of the water in the system has been lost by blowdown. Badly fouled systems must be cleaned before treatment is begun.

### **CONTINUOUS FEED METHOD:**

<u>Initial Dose:</u> When system is noticeably fouled, apply 52 to 104 oz. og thuist product per 10,000 gallons of water in the system to obtain 5 to 10 ppm available chloringe.

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

# CIRCULAR NO. K587H

# SANITIZATION OF POROUS FOOD CONTACT SURFACES DIRECTIONS FOR USE

### **RINSE METHOD**

Prepare a sanitizing solution by thoroughly mixing 6 oz. of this product with 10 gallons of water to provide approximately 600 ppm available chlorine by weight. Clean surfaces in the normal manner. Prior to use, rinse all surfaces thoroughly with the sanitizing solution, maintaining contact with the sanitizer for at least 2 minutes. Rinse all surfaces with a solution containing approximately 200 ppm available chlorine, prepared by thoroughly mixing the product in a ratio of 2 oz. product with 10 gallons of water. 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. Immerse all surfaces in a solution containing approximately 200 ppm available chlorine, prepared by thoroughly mixing the product in a ratio of 2 oz. product with 10 gallons of water.

#### SPRAY/FOG METHOD

Pre-clean all surfaces after use. Prepare a sanitizing solution of approximately 600 ppm available chlorine 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 sanitizing solution of approximately 200 ppm by thoroughly mixing 2 oz. of this product with 10 gallons of water.

# **CIRCULAR NO. K587I**

SANITIZATION OF POROUS NON-FOOD CONTACT SURFACES

**DIRECTIONS FOR USE** 

#### **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 solve rinse equipment with water after treatment and do not soak equipment overnight.

1414

### **IMMERSION METHOD**

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

#### SPRAY/FOG METHOD

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

