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U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Antimicrobials Division (7504C)
401 "M" St., S.W.
Washington, D.C. 20460

EPA Reg. Number: 1258-1196

Date of Issuance: SEP 30 1998

Term of Issuance: Conditional

Name of Pesticide Product: Hypochlorous Acid

NOTICE OF PESTICIDE:
_x_ Registration
____ Reregistration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Olin Corporation
120 Long Ridge Road
Stamford, CT 06904

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

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

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

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

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

2. Make the following label changes:

   a. Revise the EPA Registration Number to read, "EPA Reg. No. 1258-1196".

   b. In the HAZARDS TO HUMANS AND DOMESTIC ANIMALS paragraph, add the statement, "Harmful if absorbed through skin" (preferably right after the statement, "May be fatal if swallowed").

Signature of Approving Official:

Robert S. Brennis, PM 32

Date: SEP 30 1998

EPA Form 8570-6

c. Immediately after the Statement of Practical Treatment instruction, add the statement, "Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage."

d. Note: In the "Statement of Practical Treatment (First Aid)" section, in the "If in eyes" instructions, after the words "flush with," add the words "steady, gentle stream" is recommended.

e. Under the "Directions for Use" delete the following claims:

- "Sanitization of Nonporous Food Contact Surfaces".
- "Fruit & Vegetable Washing".
- Under the heading "Disinfection of Drinking Water(Emergency/Public/Individual Federally Inspected Meat & Poultry Plant Systems) delete "Public Systems", "Individual Systems - Dug Wells" and "Individual Water Systems - Drilled, "Driven and Bored Wells".
- Under the heading "Public Water Systems" delete "Reservoirs - Algae Control", "Mains, "New Tanks, "Basins, Etc.", "New Filter Sand", "New Wells" and "Existing Equipment".
- Under the heading "Emergency Disinfection After Floods" delete "Wells", Reservoirs", "Basins, Tanks, Flumes, Etc." "Filters", and "Distribution System".

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

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

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

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(Front Panel)

OLIN CONCENTRATED HYPOCHLOROUS ACID

ACTIVE INGREDIENT:	
Hypochlorous Acid	38%
INERT INGREDIENTS:	62%
TOTAL	100%

KEEP OUT OF REACH OF CHILDREN

DANGER

Statement of Practical Treatment (First Aid)

If ingested, drink large quantities of water. Do not induce vomiting. Call a physician. If on skin, flush skin with cold water for at least 15 minutes. If irritation persists, get medical attention. If in eyes, flush with cold water for at least 15 minutes. Call a physician immediately. If inhaled remove patient to fresh air, call a physician immediately.

PRECAUTIONARY STATEMENTS:

HAZARDS TO HUMANS AND DOMESTIC ANIMALS: Danger, highly corrosive. Causes skin and eye damage. May be fatal if swallowed. Do not get in eyes, on skin or on clothing. Wear goggles or face shield and rubber gloves when handling this product. Wash after handling. Irritating to nose and throat. Avoid breathing vapors. Vacate poorly ventilated areas as soon as possible. Do not return until strong odors have dissipated. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS: This pesticide is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or public waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge.. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

PHYSICAL OR CHEMICAL HAZARDS:
Strong oxidizing agent. Mix only with water according to label directions. Do not mix or contaminate this product with other chemicals or organic matter. Such use may cause a violent reaction leading to the release of chlorine fumes, generation of heat, and possible fire or explosion. If possible, isolate container in open air or well ventilated area. Flood area with large volumes of water, if necessary. Do not return to affected area until all fumes or odors of chlorine have dissipated.

Mfg. Date: _____ Expiration Date: _____ (Product good for up to 10 days after manufacture. when kept at 0 degrees C. or less)

EPA Reg. No. 1258-RROA EPA Est. No. 1258-TN-1

NET WT. _____

OLIN CORPORATION
120 LONG RIDGE RD.
STAMFORD, CT 06904

ACCEPTED
with COMMENTS
in EPA Letter Dated:
SEP 30 1998

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 1258-1196

OLIN CONCENTRATED HYPOCHLOROUS ACID (File Symbol 1258-RROA)

STORAGE AND DISPOSAL

This product must be shipped and stored in insulated tank trucks at 0 degrees centigrade or less, and used at site of application within 10 days from the date of manufacture. Store in a cool place away from heat or direct sunlight, and maintain product at 0 degrees centigrade in its original insulated container until all material is used up.

Pesticide Disposal: Pesticides wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal: Rinse empty container thoroughly with water and dispose of rinsings at site of application. Do not contaminate water, food or feed by storage or disposal. Return empty container to manufacturer for reconditioning and reuse.

Directions for Use:

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

This product must be shipped and stored in refrigerated tank trucks at 0 deg. C. or less and used at site of application within 10 days of manufacture. Store in a cool place away from heat or direct sunlight.

SANITIZATION OF NONPOROUS FOOD CONTACT SURFACES

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 0z. of this product with 30 gallons of water. If no test kit is available, prepare a sanitizing solution by thoroughly mixing 1 oz. of this product with 15 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.

SEWAGE & WASTEWATER EFFLUENT TREATMENT

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

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

SEWAGE & WASTEWATER EFFLUENT TREATMENT (continued)
The following are critical factors affecting waste water disinfection.
1. Mixing: It is imperative that the product and the waste water be instantaneously and completely flash mixed to assure reaction with every chemically active soluble and particulate component of the waste water.
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.
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 3.5 to 30 oz. of this product with 100 gallons of water. Once control is evident, apply a 15 ppm available chlorine solution. Prepare this solution by mixing 1 oz. of this product with 200 gallons of water.
FILTER BEDS - SLIME CONTROL: Remove filter from service, drain to a depth of 1 ft. above filter sand, and add 16 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.

COOLING TOWER/EVAPORATIVE CONDENSER WATER

SLUG FEED METHOD - Initial dose: When system is noticeably fouled, apply 17 to 70 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 4 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 17 to 70 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 blow down.
Subsequent Dose: When microbial control is evident, add 4 oz. of this product per 10,000 gallons of water in the system to obtain a 1ppm 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 blow down. Badly fouled systems must be cleaned before treatment is begun.
CONTINUOUS FEED METHOD - Initial dose: when system is noticeably fouled, apply 17 to 35 oz. of this product per 10,000 gallons of water in the system to obtain 5 to 10 ppm available chlorine.
Subsequent Dose: Maintain this treatment level by starting a continuous feed of 1 oz. of this product per 3,000 gallons of water lost by blow down to maintain a 1 ppm residual. Badly fouled systems must be cleaned before treatment is begun.
Initially slug dose the system with 17 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 4 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.

PULP AND PAPER MILL PROCESS WATER SYSTEMS

SLUG FEED METHOD - Initial Dose: When system is noticeably fouled, apply 17 to 70. 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 4 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 17 to 70 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 blow down.
Subsequent Dose: When microbial control is evident, add 4 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 blow down. Badly fouled systems must be cleaned before treatment is begun.
CONTINUOUS FEED METHOD - Initial dose: When system is noticeably fouled, apply 17 to 70 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 4 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.

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

OLIN CONCENTRATED HYPOCHLOROUS ACID (File Symbol 1258-RROA)

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DISINFECTION OF DRINKING WATER (EMERGENCY/PUBLIC/INDIVIDUAL/ FEDERALLY INSPECTED MEAT & POULTRY PLANT SYSTEMS)

Cooling Water in Canneries: Solutions of this product containing 1% available chlorine will sanitize cooling water, protect canned goods from contamination and spoilage and prevent staining of cans. The solution should be fed into cooling tanks or channels to reach a concentration of 2 ppm available chlorine. Check every two or three hours to be sure that an available chlorine residual of 2 ppm is maintained throughout the cooling system.

PUBLIC SYSTEMS: Mix a ratio of 1 oz. of this product to 6000 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 stiff brush. This solution can be made by thoroughly mixing 1 oz. of this product into 30 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 it 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. Contact 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 30 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.

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 4 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.

(PUBLIC WATER SYSTEMS CONTINUED)

NEW FILTER SAND - Apply 16 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 2 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 4 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 2 oz. of this product for each 5 gallons of water (approximately 1000 ppm available chlorine). After drying, flush with water and return to service.

OLIN CONCENTRATED HYPOCHLOROUS ACID (File Symbol 1258-RROA)

EMERGENCY DISINFECTION AFTER FLOODS

WELLS - Thoroughly flush contaminated casing with a 500 ppm available chlorine solution. Prepare this solution by mixing 2 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 4 oz. of product per 5 cu. ft. of water to obtain 500 ppm available chlorine, as determined by a suitable test kit. After 24 hours drain, flush, and return to service. If the previous method is not suitable, spray or flush the equipment with a solution containing 2 oz. of this product for each 5 gallons of water (1000 ppm available chlorine). Allow to stand for 2 to 4 hours, flush and return to service.

FILTERS - when the sand filter needs replacement, apply ½ 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 16 oz. per 20 sq. ft.. Water should stand at a depth of 1 foot above the surface of the filter bed for 4 to 24 hours. When filter beds can be back washed of mud and silt, apply 16 oz. of this product per each 50 sq. ft., allowing the water to stand at a depth of 1 foot above the filter sand. After 30 minutes, drain water to the level of the filter. After 4 to 6 hours drain, and proceed with normal back washing.

DISTRIBUTION SYSTEM - Flush repaired or replaced section with water. Establish a hypochlorinating station and apply sufficient product until a consistent available chlorine residual of at least 10 ppm remains after a 24 hour retention time. Use a chlorine test kit.

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