

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

SEP 11 1995

Mr. Garrett B. Schifilliti
Olin Corp.
350 Knotter Dr.
Cheshire, CT 06410

Dear Mr. Schifilliti:

Subject: Pulsar® II Dry Chlorinator Tablets 65
EPA Registration No. 1258-1179
Your Amendment Dated June 8, 1994

This is in response to your amendment of additional uses (per "Guidance for Reregistration of Hypochlorites"): non-food contact surfaces, farm, pulp and paper, agriculture, sewage and wastewater and cooling tower.

The labeling referred to above submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended is acceptable subject to the following comments.

1. Change "First Aid (Practical Treatment)" to "Statement of Practical Treatment (First Aid)".
2. Revise the "Environmental Hazard" statement to read:

"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.

A stamped copy is enclosed for your records. Submit five copies of the final printed label.

CONCURRENCES

SYMBOL							
SURNAME							
DATE							

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If you have any questions, please call Marianne Clark at
(703) 305-7879.

Sincerely yours,



Ruth Douglas
Product Manager (32)
Antimicrobial Program Branch
Registration Division (7505C)

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PULSAR II DRY
CHLORINATOR TABLETS 65

KEEP OUT OF REACH OF CHILDREN

DANGER

CONTAMINATION MAY CAUSE FIRE
ADD ONLY INTO WATER
SEE PRECAUTIONARY STATEMENTS ON BACK PANEL

FIRE OR EXPLOSION COULD RESULT FROM
IMPROPER USE

ACTIVE INGREDIENT:
CALCIUM HYPOCHLORITE.....66%
INERT INGREDIENTS.....34%
TOTAL.....100%

MINIMUM AVAILABLE CHLORINE..65%

EPA REG. # 1258-1179 EPA EST # 1258-TN-1

FIRST AID (PRACTICAL TREATMENT): IF ON SKIN: brush off
excess chemical and flush skin with cold water for at least
15 minutes. If irritation persists, get medical attention.

IF INHALED: Remove person to fresh air. Call a
physician immediately.

IF IN EYES: Flush with cold water for at least 15
minutes. Call a physician immediately.

IF SWALLOWED: Drink large quantities of water. Do not
induce vomiting. Call a physician immediately.

Kills bacteria, controls algae, destroys organic
contaminants.

OLIN CORP.
120 LONG RIDGE RD.
STAMFORD, CT. 06904

Net weight 100#

(1179red2.doc)

ACCEPTED
with COMMENTS
in EPA Letter Dated.

SEP 11 1995

Under the Federal Insecticide,
Fungicide, and Rodenticide Act as
amended for the pesticide
registered under EPA Reg. No. 1258-1179

DIRECTIONS FOR USE: It is a violation of federal law to use this product in a manner inconsistent with its labeling. Easy to use Pulsar II Dry Chlorinator Tablets 65 are designed for use only with Pulsar Feeders. Used according to the instructions provided with the feeder, the Pulsar Pool Feeder provides a steady supply of available chlorine while the pool's filter pump is in operation. This controls the growth of algae, kill bacteria and destroy organic contaminants. Four pellets weigh approximately one ounce.

1. Before use, read the appropriate installation instructions and operating manual for your Pulsar Pool Feeder.
2. Start the filter pump and check chlorine residual with a reliable test kit.
3. Fill the pellet container with this product only. Adjust chlorine feed rate setting according to the operating instructions in the manual.
4. After 24 hours, check the chlorine residual. If 1.0 to 3.0 ppm, leave the feed rate setting, if below 1.0 ppm, increase the feed rate. Allow sufficient time (e.g. one day) after changing the feed rate setting for the chlorine residual to readjust. The pool should not be used until the 1.0 to 3.0 ppm chlorine residual is established.
5. Always maintain pH between 7.2 and 7.6 by using suitable pH adjuster according to directions on the lable for such products.
6. If cyanuric acid is used to stabilize available chlorine, follow label directions for this product and maintain the chlorine residual at 1.0 to 3.0 ppm as determined by a test kit.
7. Refer to Operating Manuals for feed rate information.

Note: If algae develops, adjust pH to 7.2 to 7.4, fill container with this product. Pulsar Feeder: Set indicator ball to top mark and control dial to ten (10). Pulsar II Feeder: set feed rate setting to "F". Continue to run filter until algae is visually eliminated, or until the chlorine residual is 5.0 ppm. Maintain 5.0 to 10.0 ppm free available chlorine residual for at least four hours. Pool should not be entered until the chlorine residual is between 1.0 and 3.0 ppm (set feed control to zero on Pulsar Feeder, set feed control to "A" on Pulsar II Feeder until residual drops to 1 - 5 ppm). Monitor chlorine residual until chlorine levels are as indicated in instructions 4 through 7. Thoroughly clean pool by scrubbing surface of algae growth, vacuum and cycle through filter.

STORAGE AND DISPOSAL: Keep product dry in tightly closed container when not in use. Store in a cool, dry, well-ventilated area away from heat or open flame. In case of decomposition, isolate container (if possible) and flood area with large amounts of water to dissolve all materials before discarding this container. Do not reuse empty container but place in trash collection. Do not contaminate food or feed by storage, disposal or cleaning of equipment.

EMERGENCY HANDLING: In case of contamination or decomposition, if possible, isolate container in open and well-ventilated area. Flood with large volumes of water to dissolve all materials. Dispose of contaminated material in an approved landfill area.

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. Do not handle with bare hands. Wear goggles or face shield and use rubber gloves and only thoroughly clean dry utensils when handling. Irritating to nose and throat. Avoid breathing dust and fumes. Remove and wash contaminated clothing before reuse.

CHEMICAL HAZARDS: DANGER. Strong oxidizing agent. Mix only into water. Contamination may start a chemical reaction with generation of heat, liberation of hazardous gases, and possible fire and explosion. Avoid any contact with flame or burning material, such as a lighted cigarette. Do not contaminate with moisture, garbage, dirt, chemicals including other pool chemicals, pool chlorinating compounds, household products, cyanuric acid pool stabilizers, soap products, paint products, solvents, acids, vinegar, beverages, oils, pine oil, dirty rags or any other foreign matter.

ENVIRONMENTAL HAZARD: This pesticide is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, ponds, streams, estuaries, oceans or public waters unless this product is specifically identified and addressed in an NPDES permit. 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.

SANITIZATION OF NONPOROUS NON-FOOD CONTACT SURFACES

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RINSE METHOD - Prepare a sanitizing solution by thoroughly mixing 1 oz. of this product with 20 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, 1 oz. of this product with 20 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 - Preclean all surfaces after use. Prepare a 200 ppm available chlorine sanitizing solution of sufficient size by thoroughly mixing the product in a ratio of 1 oz. product with 20 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.

DISINFECTION OF NONPOROUS NON-FOOD CONTACT SURFACES

RINSE METHOD - Prepare a disinfecting solution by thoroughly mixing 3 oz. of this product with 20 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, 3 oz. of this product with 20 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 sanitizer to drain. Do not rinse equipment with water after treatment.

SANITIZATION OF POROUS NON-FOOD CONTACT SURFACES

RINSE METHOD - Prepare a sanitizing solution by thoroughly mixing 3 oz. of this product with 20 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, 3 oz. of this product with 20 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 600 ppm available chlorine by thoroughly mixing the product in a ratio of 3 oz. of this product with 20 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.

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 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 bacterial kill must be emphasized. The MPN of the effluent, which is directly related to the water quality standards requirements, should be the final and primary standard and the chlorine residual should be considered an operating standard valid only to the extent verified by the coliform quality of the effluent.

The following are critical factors affecting wastewater disinfection.

1. Mixing: It is imperative that the product and the wastewater be instantaneously and completely flash mixed to assure reaction with every chemically active soluble and particulate component of the wastewater.
2. Contacting: Upon flash mixing, the flow through the system must be maintained.
3. Dosage/Residual Control: Successful disinfection is extremely dependent on response to fluctuating chlorine demand to maintain a predetermined, desirable chlorine level. Secondary effluent should contain 0.2 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 2 to 20 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 0.3 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 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 10 to 20 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 2 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 10 to 20 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 2 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 10 to 20 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 blowdown to maintain a 1 ppm residual. Badly fouled systems must be cleaned before treatment is begun.

BRIQUETTES OR TABLETS - Initially slug dose the system with 10 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 2 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.

FARM PREMISES

Remove all animals, poultry, and feed from premises, vehicles, and enclosures. Remove all litter and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other facilities occupied or transverse by animals or poultry. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. To disinfect, saturate all surfaces with a solution of at least 1000 ppm available chlorine for a period of 10 minutes. A 1000 ppm solution can be made by thoroughly mixing 2 oz. of this product with 10 gallons of water. Immerse all halters, ropes and other types of equipment used in handling and restraining animals or poultry, as well as the cleaned forks, shovels and scrapers used for removing litter and manure. Ventilate buildings, cars, boats and other closed spaces. Do not house livestock or poultry or employ equipment until chlorine has been dissipated. All treated feed racks, mangers, troughs, automatic feeders, fountains and waterers must be rinsed with potable water before reuse.

PULP AND PAPER MILL PROCESS WATER SYSTEMS

SLUG FEED METHOD - Initial Dose: When system is noticeably fouled, apply 10 to 20. 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 2 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.

AQUACULTURAL USES

FISH PONDS - Remove fish from ponds prior to treatment. Thoroughly mix 20 oz. of this product to 10,000 gallons of water to obtain 10 ppm available chlorine. Add more product to the water if the available chlorine level is below 1 ppm after 5 minutes. Return fish to pond after the available chlorine level reaches zero.

FISH POND EQUIPMENT - Thoroughly clean all equipment prior to treatment. Thoroughly mix 1 oz. of this product to 20 gallons of water to obtain 200 ppm available chlorine. Porous equipment should soak for one hour.

MAINE LOBSTER PONDS - Remove lobsters, seaweed etc. from ponds prior to treatment. Drain the pond. Thoroughly mix 1200 oz. of this product to 10,000 gallons of water to obtain at least 600 ppm available chlorine. Apply so that all barrows, gates, rock and dam are treated with product. Permit high tide to fill the pond and then close gates. Allow water to stand for 2 to 3 days until the available chlorine level reaches zero. Open gates and allow 2 tidal cycles to flush the pond before returning lobsters to pond.