

748-239

5/14/2004

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

MAY 14 2004

Donna L. Butler
PPG Industries, Inc.
One PPG Place - 8 North
Pittsburgh, PA. 15272

SUBJECT: February 13, 2004 Amendment Application
Induchlor
EPA Registration 748-239

Dear Ms. Butler:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is conditionally acceptable subject to the comments listed below. Five copies of the finished labeling must be submitted prior to releasing the product for shipment.

- 1.) On page 5, delete the word Interim.
- 2.) On page 6, capitalize the word Do.

If you have any questions regarding this letter, please contact Tom Luminello of my staff at (703) 308-8075.

Sincerely yours,

Emily H. Mitchell
Emily H. Mitchell
Acting Product Manager (32)
Regulatory Management Branch II
Antimicrobial Division (7510-C)

Enclosure

EPA MASTER LABEL COPY

INDUCLOR
Calcium Hypochlorite Granules
for Industrial Applications and Swimming Pool Use
Water Treating Agent – Bactericide – Algacide – Bleach

EPA Reg. No. 748-239
EPA Est. No. 748-WV-1

ACTIVE INGREDIENT: Calcium Hypochlorite . . . 68%
OTHER INGREDIENTS: 32%
Minimum 65% Available Chlorine

KEEP OUT OF REACH OF CHILDREN
DANGER

Do not mix with other chemicals.
Do not add water to product – Add product to water
See additional precautionary statements on back label.

FIRST AID: **If in eyes,** 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 eye. Call a poison control center or doctor for treatment advice. **If on skin or clothing,** take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. **If swallowed,** call poison control center or doctor immediately for treatment 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,** move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice. **Note to physician,** probable mucosal damage may contraindicate the use of gastric lavage. **Contact 1-304-843-1300 or your poison control center for 24-hour emergency medical treatment information. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.**

Manufactured by
PPG INDUSTRIES, INC.
One PPG Place
Pittsburgh, PA 15272
Emergency Telephone Number: 1-304-843-1300

NET WT. 100 lbs. (45 kg)

[02/13/04 pending EPA update]

ACCEPTED
WITH COMMENTS
In EPA Letter Dated:
MAY 14 2004

748-239

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

DANGER - Highly Corrosive. Causes irreversible eye and skin damage. Do not get in eyes, on skin, or on clothing. Wear goggles or face shield and rubber gloves when handling. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing and shoes before reuse. May be Fatal if swallowed. Irritating to Nose and Throat. Avoid breathing dust.

[NOTE to EPA: The following PPE information is required to be on the product label only when the agricultural use instructions (pages 12-13 of this master label) are on the label]

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- A. Goggles or face shield
- B. Long-sleeved shirt and long pants
- C. Waterproof gloves
- D. Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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 other 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 local 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. **Never add water to product. Always add product to large quantities of water.** Use only a clean, dry utensil made of metal or plastic each time product is taken from the container. Do not mix with any other chemicals. **Do not add this product to any dispensing device containing remnants of any other product. Such use may cause violent reaction leading to fire or explosion.** Contamination with moisture, acids, organic matter, other chemicals, or easily combustible materials such as petroleum or paint products may start a chemical reaction with generation of heat, liberation of hazardous gases and possible generation of a fire or explosion. In case of contamination or decomposition, do not reseal container. If possible isolate container in open air or well-ventilated area. Flood with large volumes of water, if necessary.

STORAGE AND DISPOSAL: Keep in original container in a cool, dry, well-ventilated place. Keep container closed when not in use. Keep away from heat sources, sparks, open flames and lighted tobacco products. **Container Disposal** - Do not reuse container. Residual material remaining in empty container can react to cause fire. Thoroughly flush empty container with water then destroy by placing in trash collection. **Pesticide Disposal** - Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Do not contaminate water, food, or feed by storage or disposal. **In Case of Fire** - Drench with water. Calcium hypochlorite supplies oxygen; therefore, attempts to smother fire with a wet blanket, carbon dioxide, or a dry chemical extinguisher are ineffective. **In Case of Spill or Leak** - Use extreme caution. Contamination may cause fire or violent reaction. If fire or reaction occurs in area of spill, douse with plenty of water. Otherwise sweep up spilled material, using a clean, dry shovel and broom and dissolve spilled material in water. Then immediately use solution as directed.

DIRECTIONS FOR USE: It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

This product is a dry granular material in free flowing form that contains a minimum of 65% available chlorine. It provides a rapid source of a chlorine containing disinfectant that protects the pool against the growth of bacteria and algae to help keep the pool in a sanitary condition.

with COMMENTS
in EPA Letter Date:

MAY 14 2004

Under the Federal Insecticide, Fungicide, and Rodenticide Act, this pesticide is registered under EPA Reg. No.

4115

HOW TO APPLY: This product is best added to the pool as a solution. Predissolve the required quantity of this product in a plastic pail or bottle using 1 gallon of water to dissolve every 2 oz. (4 level tbsp.) of product. Allow the mixture to settle and decant off the clear solution into a plastic sprinkling can and use the clear solution for treatment. This product may also be added to the pool by broadcasting the dry granules over the pool water surface. No one should be in the pool when chemicals are being added.

REGULAR TREATMENT FOR POOLS IN USE:

Maintain pool water parameters in the ranges recommended below or at levels required by local regulations. Obtain and make use of a pool test kit to measure pH, free chlorine residual, total alkalinity, water hardness, and cyanuric acid concentration.

Parameter	Test Frequency	Recommended Level
pH	Daily	7.2 to 7.6
Free Chlorine Residual	Daily	1 to 3 ppm in unstabilized pools. 2 to 4 ppm minimum in stabilized pools.
Total Alkalinity as CaCO ₃	Weekly	60-120 ppm
Stabilizer (Cyanuric Acid)	Monthly	20 to 50 ppm
Water Hardness as CaCO ₃	Monthly	200 ppm minimum

[or instead of the above paragraph and table, use the following paragraph format on smaller packages:]

Maintain pool water parameters as follows: adjust pH to 7.2-7.6, free chlorine residual 1-4 ppm, total alkalinity 60-120 ppm, stabilizer 20-50 ppm, and water hardness at 200 ppm minimum. Obtain and make use of a pool test kit to measure the levels.]

Initial Chlorination: Begin operation of your recirculation equipment. Superchlorinate the pool following the directions given below for superchlorination. Wait at least 4 hours, preferably overnight, then vacuum the pool bottom. Determine the free chlorine residual using your test kit. If no residual is found, superchlorinate again. Wait 30 minutes then retest. Repeat the treatment until a minimum of 1.5 ppm (parts per million) free chlorine residual has been established. Do not enter the water until the free chlorine residual is 4.0 ppm or less. Make certain the pool water parameters described above are in their proper ranges.

Routine Chlorination: The pH, total alkalinity, water hardness, and stabilizer concentration should be maintained at the proper levels. Subsequently add 3-4 oz. of this product (1-2 oz. in stabilized pools) per 5,000 gallons of water daily or as often as needed to maintain the desired free chlorine residual whether the pool is in use or not. Actual dosages of product required to maintain the desired free chlorine residual will vary with sunlight, water temperature, bathing load, stabilizer concentration, and other factors. Use a test kit frequently to determine and maintain the proper free chlorine residual. For small changes in free chlorine residual once a free chlorine residual is detected, the addition of 1 oz. (2 level tbsp.) of this product to 5,000 gallons of water will raise the free chlorine residual approximately 1.0 ppm.

HELPFUL AIDS IN SWIMMING POOL CARE

Superchlorination: Superchlorination is recommended to combat the growth of algae and other microorganisms and to destroy unfiltered organic contamination that could build up in the pool water. Adjust pH between 7.2 and 7.6 prior to superchlorinating. Add 5 oz. of this product to every 5,000 gallons of water. Maintain operation of your pump and filter. Treatment should be done at night or during a period when the pool is not in use. Superchlorinate at least once per week during period of heavy usage or when water temperatures are above 80° F and once every two weeks in residential pools receiving normal usage. Do not enter the pool until the free chlorine residual has dropped to 4.0 ppm or less.

Shock Treatment: Shocking is recommended when certain pool water quality problems such as visible signs of algae growth, noxious odors, or other unusual water quality problems develop. Adjust pH between 7.2 and 7.6 prior to shocking. Add 10 oz. of this product to every 5,000 gallons of water. Maintain operation of your pump and filter. Treatment should be done at night or during a period when the pool is not in use. Do not enter the pool until the free chlorine residual has dropped to 4.0 ppm or less as measured using your test kit.

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Need for Control of pH, Total Alkalinity, Water Hardness, and Use of Stabilizer: Maintaining the proper pH, total alkalinity, and water hardness is necessary to obtain proper water balance, and help avoid problems such as cloudy water, scaling, corrosion and swimmer discomfort. Stabilizers such as cyanuric acid slow down the rate at which chlorine is destroyed by sunlight. Follow carefully the directions given with the product when using a stabilizer. Kits for testing free chlorine, pH, total alkalinity, water hardness, and cyanuric acid concentration are an integral part of a proper program for controlling the quality of your pool water. The kits are inexpensive and available from most pool chemical dealers.

How to Determine the Capacity of Your Pool:

First: Approximate the average depth in feet by adding the depth at the deep end to the depth at the shallow end and divide the total by two.

Then: For rectangular or square pools: Multiply length (ft) x width (ft) x average depth (ft) x 7.5 = capacity of pool in gallons.

For circular pools: Multiply diameter (ft) x diameter (ft) x average depth (ft) x 5.9 = capacity of pool in gallons.

For oval pools: Multiply long axis (ft) x short axis (ft) x average depth (ft) x 5.9 = capacity of pool in gallons.

NOTE: If pool has sloping sides, multiply total gallons calculated by 0.85 to arrive at the capacity of your pool.

OTHER USES:

Calcium Hypochlorite is also used in the sanitization of water systems, municipal water mains, sewage and industrial waste treatment, pulp bleaching, sanitization in the food industry, restaurants, dairies, and hospitals, odor and taste control in potable water systems, algae control in industrial cooling water systems, and general industrial sanitizations. For specific literature on these and other accepted uses, write to the address on the front label.

ACCEPTED
with COMMENTS
in EPA Letter to EPA
MAY 14 2004

Manufactured by...
...
registered under EPA Reg. No.

748-239

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[NOTE to EPA: These are additional industrial use instructions.]

DIRECTIONS FOR USE

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

DISINFECTION OF DRINKING WATER (Potable Water):

PUBLIC SYSTEMS

Mix a ratio of 1 ounce 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.

delete

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 ounce of this product into 40 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. 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 ounce of this product into 40 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.

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 clarified, contaminated water to a clean container and add 1 grain of this product to 1 gallon of water. One grain is approximately the size of the letter "O" in this sentence. Allow the treated water to stand for 30 minutes. Properly treated water should have a slight chlorine odor, if not, repeat dosage and allow the water to stand an additional 15 minutes. The treated water can then be made palatable by pouring it between clean containers for several times.

ACCEPTED
BY THE DEPARTMENT OF HEALTH
ON 5/14/04 Dated:

MAY 14 2004

... Disinfectant, ...
... as ...
...
... registered under EPA Reg. No.

748-239

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SANITIZATION OF NONPOROUS FOOD CONTACT SURFACES

RINSE METHOD - A solution of 100 ppm available chlorine may be used in the sanitizing solution if a chlorine test kit is available. Solutions containing an initial concentration of 100 ppm available chlorine must be tested and adjusted periodically to insure that the available chlorine does not drop below 50 ppm. Prepare a 100 ppm sanitizing solution by thoroughly mixing 1 ounce of this product with 40 gallons of water. If no test kit is available, prepare a sanitizing solution by thoroughly mixing 1 ounce 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. 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 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 ounce of this product with 40 gallons of water. If no test kit is available, prepare a sanitizing solution by thoroughly mixing 1 ounce 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. If solution contains less than 50 ppm available chlorine, as determined by a suitable test kit, either discard the solution or add sufficient product to reestablish a 200 ppm residual. Do not rinse equipment with water after treatment. Sanitizers used in automated systems may be used for general cleaning but may not be 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 a 200 ppm available chlorine sanitizing solution equal to 110% of volume capacity of the equipment by mixing the product in a ratio of 1 ounce product with 20 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 volume of 200 ppm available chlorine sanitizing solution equal to 110% of volume capacity of the equipment by mixing the product in a ratio of 1 ounce product with 20 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.

SPRAY/FOG METHOD - Preclean 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 1 ounce product with 20 gallons of water. Prepare a 600 ppm solution by thoroughly mixing the product in a ratio of 3 ounces 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. 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.

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SANITIZATION OF POROUS FOOD CONTACT SURFACES

RINSE METHOD - Prepare a 600 ppm solution by thoroughly mixing 3 ounces of this product with 20 gallons of water. Clean surfaces in the normal manner. Rinse all surfaces thoroughly with the 600 ppm solution, maintaining contact for at least 2 minutes. Prepare a 200 ppm sanitizing solution by thoroughly mixing 1 ounce of this product with 20 gallons of water. Prior to using equipment, rinse all surfaces with a 200 ppm available chlorine solution. Do not rinse and do not soak equipment overnight.

IMMERSION METHOD - Prepare a 600 ppm solution by thoroughly mixing, in an immersion tank, 3 ounces of this product with 20 gallons of water. Clean equipment in the normal manner. Prepare a 200 ppm sanitizing solution by thoroughly mixing 2 ounces of this product with 10 gallons of water. Prior to using, immerse equipment in the 200 ppm sanitizing solution for at least 2 minutes and allow the sanitizer to drain. Do not rinse and do not soak equipment overnight.

SPRAY/FOG METHOD - Preclean all surfaces after use. Prepare a 600 ppm available chlorine sanitizing solution of sufficient size by thoroughly mixing the product in a ratio of 3 ounces 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. 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 1 ounce of this product with 20 gallons of water.

SANITIZATION OF NONPOROUS NON-FOOD CONTACT SURFACES

RINSE METHOD - Prepare a sanitizing solution by thoroughly mixing 1 ounce 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 ounce 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 ounce 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.

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MEM. Letter #
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DISINFECTION OF NONPOROUS NON-FOOD CONTACT SURFACES

RINSE METHOD - Prepare a disinfecting solution by thoroughly mixing 3 ounces 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 ounces 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 solution 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 ounces 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 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 ounces 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 ounces 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.

COOLING TOWER / EVAPORATIVE CONDENSER WATER:

Slug Feed Method – Initial dose: When system is noticeably fouled, apply 10 to 20 ounces of this product per 10,000 gallons of water in the system to obtain 5 to 10 ppm available chlorine. Repeat until control is achieved.

Subsequent dose: When microbial control is evident, add 2 ounces 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 system must be cleaned before treatment is begun.

Intermittent Feed Method – Initial dose: When system is noticeably fouled, apply 10 to 20 ounces 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 ounces 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 system must be cleaned before treatment is begun.

Continuous Feed Method – Initial dose: When system is noticeably fouled, apply 10 to 20 ounces 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 ounce of this product per 3,000 gallons of water lost by blowdown to maintain a 1 ppm residual. Badly fouled system must be cleaned before treatment is begun.

Briquettes or Tablets – Initial dose: Initially slug dose the system with 10 ounces of this product per 10,000 gallons of water in the system. Badly fouled system must be cleaned before treatment is begun. **Subsequent dose:** When microbial control is evident, add 2 ounces 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 system must be cleaned before treatment is begun.

ACCEPTED
with COMMENTS
in EPA Letter Dated:

MAY 14 2004

Environmental Health Services
1000 North 17th Street
Seattle, WA 98107
206.462.3000

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Fruit & Vegetable Washing - Thoroughly clean all fruits and vegetables in a wash tank. Thoroughly mix this product as noted below to make a sanitizing solution. After draining the tank, submerge fruit or vegetables for two 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.

DATE: MAY 11 2004

Table of Recommended Levels and Use Dilutions for Available Chlorine

Commodity	Usage Dilution dry oz. added to 250 gal. of water	(ppm) Available Chlorine	Contact Time
Apple	7.7 - 10.3	150 - 200	45-90 sec.(dump tank) 5-15 sec. (spray)
Artichoke	5.1 - 7.7	100 - 150	5-15 sec. (spray)
Asparagus	6.4 - 7.7	125 - 150	5-15 sec. (spray) 20-30 min.(hydrocooler)
Brussels Sprouts	5.1 - 7.7	100 - 150	5-15 sec. (spray)
Carrots	5.1 - 10.3	100 - 200	1-5 min. (dump tank) 1-5 min. (flume)
Cauliflower	15.4 - 20.5	300 - 400	5-15 sec. (spray)
Celery	5.1 - 5.7	100 - 110	5-15 sec. (spray)
Cherry	3.9 - 5.1	75 - 100	5-15 sec. (spray)
Chopped Cabbage ¹	4.1 - 5.1	80 - 100	5-15 sec. (spray)
Chopped Lettuce ¹	4.1 - 5.1	80 - 100	5-15 sec. (spray)
Citrus Fruits	1.3 - 10.3	40 - 75 30 - 50 100 - 200	5-15 sec. (spray) 2-3 min. (dump tank) 3-5 min. (drench)
Cucumbers	15.4 - 18.0	300 - 350	5-15 sec. (spray)
Green Onions	3.9 - 6.2	75 - 120	5-15 sec. (spray)
Melons	5.1 - 7.7	100 - 150 30 - 75	5-15 sec. (spray) 20-30 min.(hydrocooler)
Peaches, Nectarines and Plums	2.6 - 5.1	50 - 100	5-15 sec. (spray)
Pears (without buffer)	10.3 - 15.4	200 - 300	2-3 min. (dump tank)
Peppers	15.4 - 20.5 5.1 - 6.9	300 - 400 100 - 135	5-15 sec. (spray) 2-5 min. (dump tank)
Potatoes	3.3 - 6.4	65 - 125	2-5 min.(dump tank)(30-100ppm) 2-5 min. (flume)(200-300ppm) 5-30 sec.(spray)(100-200ppm)
Radishes	5.1 - 7.7	100 - 150	5-15 sec. (spray)
Stonefruit	1.5 - 3.9	30 - 75	20-30 min. (hydrocooler)
Tomatoes	15.4 - 18.0	300 - 350	2-3 min (tank)(200-350 ppm) 5-15 sec.(spray)(100-150ppm)

7-8-239

Note: 1. After treatment the adhering water must be removed by a centrifugation process.

11/15

FOOD PROCESSING

For use in federally inspected meat and poultry plants.

Chlorine potable water treatment compounds.

Chlorine may be present in processing water of meat and poultry plants at concentrations up to 5 parts per million calculated as available chlorine. Also, chlorine may be present in poultry chiller intake water, and in carcass wash water at concentrations up to 50 parts per million calculated as available chlorine. Chlorine must be dispensed at a constant and uniform level and the method or system must be such that a controlled rate is maintained.

Cooling and retort water treatment compounds.

Chemical agents may be added to water used to cook and cool containers of meat and poultry products to prevent staining of containers and to control corrosion and deposit formation on surfaces of processing equipment. The amount used should be the minimum sufficient for the purpose.

Calcium hypochlorite solutions providing 1% available chlorine should be fed into tanks or channels by an elevated tank to provide a concentration of 2 ppm available chlorine. The flow may be controlled with a noncorroding valve or a pinch-stop on a rubber hose.

Feed points should be located to provide uniform distribution of solution throughout the entire system. Long and narrow tanks may require the solution to be fed at two points to insure proper distribution.

Test the water for available chlorine. If a residual of 2 ppm is present throughout the system, the water is properly sanitized.

Test for available chlorine every hour until dosage requirements are established. Thereafter, check every 2 or 3 hours to ascertain that an available chlorine residual of 2 ppm is maintained throughout the system.

Compounds for treating boilers, steam lines, and/or cooling systems where neither the treated water nor the steam produced may contact edible products. This does not include compounds added to water used to cook and cool containers of meat and poultry products.

A clogged or fouled system should be mechanically cleaned to remove all physical soil prior to beginning treatment. Initially, treat by adding enough calcium hypochlorite to provide 10 ppm available chlorine (2 ounces per 1000 gallons) as a shock dosage and circulate it thoroughly through the system.

Then, for continuous preventative control of algae and slime growth, regularly add enough calcium hypochlorite to the recirculation system to maintain a 1.0 ppm free chlorine residual.

Other water condition factors, such as pH, should be controlled as recommended by the equipment manufacturer.

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Shell Egg Cleaning

Wash eggs promptly after gathering. Water with an iron content in excess of 2 ppm shall not be used unless equipment capable of removing the excess iron is installed on the water system. Wash water temperature should be 90°F or higher. Maintain the wash water at a temperature which is at least 20°F warmer than the temperature of the eggs to be washed. Spray rinse washed eggs with warm potable water containing an approved sanitizing compound. Eggs should be reasonably dry before casing or breaking.

Shell Egg Destainers

The destainer solution must be at least 20°F warmer than the eggs with a minimum solution temperature of 90°F. Total elapsed time in the destainer solution may not exceed 5 minutes. Eggs are to be rewashed and spray rinsed after destaining. Destainer solution should be replaced daily or whenever it becomes dirty. Destaining is to be done after initial washing has been completed. It is recommended that all eggs be shell protected after they have been destained.

LAUNDRY SANITIZERS

Household Laundry Sanitizers - In Soaking Suds - thoroughly mix 1 tbsp. of this product to 10 gallons of wash water to provide 200 ppm available chlorine. Wait 5 minutes, then add soap or detergent. Immerse laundry for at least 11 minutes prior to starting the wash/rinse cycle. - In Washing Suds - thoroughly mix 1 tbsp. of this product to 10 gallons of wash water containing clothes to provide 200 ppm available chlorine. Wait 5 minutes then add soap or detergent and start the wash/rinse cycle.

Commercial Laundry Sanitizers - Wet fabrics or clothes should be spun dry prior to sanitization. Thoroughly mix 1 oz. of this product with 20 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.

ACCEPTED
with COMMENTS
in Blue Ink Dated:

MAY 14 2004

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

748-239

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actual metering pump settings required to provide the amount of free chlorine at the end of the farthest lateral (and consequent treatment of the irrigation system). Normally the treatment level at the end of the farthest lateral will be 1 – 2 ppm free chlorine.

GENERAL APPLICATION INSTRUCTIONS

Chlorination should be started during irrigation, near the end of the irrigation sequence, but early enough to establish the desired free chlorine concentration throughout the system being treated.

Apply this product upstream of the filter to help keep the filter clean.

Determine the level of free chlorine as described above, using a free chlorine test kit. Allow sufficient time to achieve a steady reading.

DO NOT apply this product when fertilizers, herbicides, and insecticides are being injected since they will consume the available chlorine and may produce toxic reaction products.

Shut down the product feed as soon as the irrigation water is switched to the next irrigation sector. Leave the treated water residing in the section that has been shut down.

Refer to the metering pump use instructions as needed.

SENSITIVE PLANT SPECIES

Certain plants, including various species of trees, flowers, shrubs, agronomic crops, fruits and vegetables are adversely affected by chlorinated irrigation. The use of this product can impact the growth, appearance and health of the plants.

Begonias, geraniums and other ornamental plant species are known to be sensitive to continuous chlorination at levels of 1-2 ppm free chlorine. Plant species such as tomato, lettuce, broccoli, and petunia are sensitive to periodic chlorination levels of 10-20 ppm free chlorine.

If uncertain of a plant's tolerance, consult an agronomist or a support agency or use an alternate method to remove bio-fouling from the irrigation system.

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WITH COMMENTS
Date: _____
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INDUCLOR – EPA Reg. No. 748-239 Supplemental Labeling for Agricultural Use

DIRECTIONS FOR USE: It is a violation of federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the areas during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS:

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirement for the protection of agricultural workers on farms, forests, nurseries, greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Workers Protection Standard.

Do not enter or allow worker entry into treated areas during the Restricted-Entry Interval (REI) of 12 hours.

Personal Protective Equipment (PPE):

The following PPE is required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water.

Applicators and other handlers of the diluted (20,000 ppm solution) must wear the following.

- Coveralls over long-sleeved shirt and long pants.
- Waterproof gloves.
- Chemical-resistant footwear plus socks.
- Protective eyewear.
- Chemical-resistant headgear for overhead exposure.

Mixers and Loaders of the concentrate product must wear:

- Coveralls over long-sleeved shirt and long pants.
- Waterproof gloves.
- Chemical-resistant footwear plus socks.
- Protective eyewear.
- Chemical-resistant headgear for overhead exposure.
- Chemical resistant apron when cleaning equipment, mixing or loading.
- Dust/mist filtering respirator (MSHA/NIOSH...D/M approval # prefix TC-21C).

RECORDED
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 Date Dated:
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 Fungicide
 for the pesticide,
 registered under EPA Reg. No.
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Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate.

FOR USE ON SEEDS FOR SPROUTING AS FOOD FOR HUMAN CONSUMPTION:

While this treatment may reduce populations of E coli O157, Salmonella spp.&B.cereus (food poisoning) on seeds intended for sprout production, it may not eliminate these organisms on the seeds. Additionally, treatment may not reduce or eliminate these organisms on the final sprouts.

Dosage: In a well-ventilated area, prepare a 2% calcium hypochlorite solution (20,000 ppm available chlorine) by dissolving 4.1 ounces of product into 1 gallon of potable water. Below is a table for preparing various amounts of calcium hypochlorite treatment solutions.

Available Chlorine		Gallons of Water					
%	ppm	1	5	15	30	50	100
2.0	20,000	4.1 ozs.	1 lb. 5 ozs.	3 lbs. 13 ozs.	7 lbs. 11 ozs.	12 lbs. 13 ozs.	25 lbs. 10 ozs.

Frequency/Timing of Application: Prewash seeds with potable water for at least 5 minutes. Treat pre-washed seeds once by soaking 5 pounds of seeds in 1 gallon of a 2% calcium hypochlorite solution for 15 minutes at room temperature with continuous agitation. After treatment, drain the solution and rinse the treated seeds thoroughly with potable water for 10 minutes (changing the water several times as necessary). Prepare fresh solution for each batch of seeds.

Restricted Entry Interval (REI): 12 hours

[The USEPA has determined that this REI applies when the calcium hypochlorite is sprayed on the benches or areas around the soaking containers. Note, the REI is not applicable when the disinfectant is applied directly to the raw commodity (seeds) by soaking in a container/bin. There are no re-entry interval concerns when treating pests in this manner (soaking).]