5185-420 @ 10019x

[All text in brackets [xxx] is optional and may or may not be included on a final label.] (All text in braces {xxx} is administrative and will not appear on a final label.)

# **BIOGUARD** MASTER BCDMH

{Option: I marketing statements that may be used with swimming pool sanitization.} [For low-odor sanitization] [For pools & spas] {When directions for both pool and spa sanitation appear on same label.} [Sanitiz=r] [Disinfectant] [Bactericide] [Algiciae] [No chlerine odor] [1" tablets for use in bromine feeders] [For use in accordance with U.S. Patent No. 5,264,136] [For use only in Vantage® Model 'VG" Brominators] [A Component of the Vantage Water Care Program] [For poels] [1" tablets] Less pH sensitive] {Optional marketing statements that may be used with brominating cartridge system.} [For low-odor sanitization] [Sanitizer] [Disinferrant] {Option I marketing statements that may be used with skimmers.} [For low-odor sanitization] [Sanitizer] [Disinfertant] {Option I marketing statements that may be used with unipak.} [For low-odor sanitization] [Sanitizer] Disinfectant] [For Skimmer Application] {Option: I marketing statements that may be used with spa and hot tub sanitization.} [For use only in Vantage® Model 'VG" Brominators] [A Component of the Vantage Water Care Program] [For use in accordance with U.S. Patent No. 5,264,136] [For low-odor sanitization] [Sanitizer] [Disinfectant] [For Spas and Hot Tubs] [Less pE Sensitive] {Optional marketing statements that may be used with mini pak dispenser.} [Sanitizer] [Disinfertant] {Optional marketing statements that may be used with floaters.} [Sanitize:] [Disinferrant]

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Unider The Federal Insecticide, Fungicide and adenticide Act, as emended, for the isticide registered under

(Optional marketing statements that may be used with photo processing wash water treatment; when sold as tablets.) [For control of microbiological growth in photo processing wash waters.]

{Optional marketing statements that may be used with photo processing wash water treatment; when sold as lab pak (tablets in an erosion container)}

[For control of microbiological growth in photo processing wash waters.]

{Optional marketing statements that may be used with cooling water, wastewater, pulp & paper mills, etc.: product form, tablets } [For use as a Disinfectant, Sanitizer, Bactericide, Fungicide, Slimicide, Algicide, and Mollusk Control Agent in recirculating cooling water systems and once through Cooling Water and Wastewater Treatment Systems and for Control of Microbial Slimes in Air Conditioners, Dehumidifiers, Evaporative Coolers and Paper and Paperboard Process Water.]

[Sanitizer]

[Disinfectant]

[Bactericide]

[Algicide]

{Optional marketing statements that may be used with cooling water, wastewater, pulp & paper mills, etc.: product form, granular} [For use as a Disinfectant, Sanitizer, Bactericide, Fungicide, Slimicide, Algicide, and Mollusk Control Agent in recirculating cooling water systems and once through Cooling Water and Wastewater Treatment Systems and Paper and Paperboard Process Water.] [Sanitizer]

Disinfectant]

**B**actericide

[Algicide]

{Optional marketing statements that may be used with <u>cooling water systems</u>: product form, powder}

[For Control of Algal, Bacterial and Fungal Slimes in Recirculating Cooling Water Systems and Once-Through Industrial Cooling Water Systems.]

[Sanitizer]

[Disinfectant]

[Bactericide]

[Algicide]

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(The following statements will be used when product is sold as individual tablets, not when sold encased in dispenser such as mini pak dispenser and floaters, etc.)

[Each tablet weighs approximately 20 grams.] {When product sold for applications other than skimmer.}

[Each tablet weighs approximately 70 grams.] {When product sold with directions to be used for skimmer (puck form).}

**ACTIVE INGREDIENT:** 

1-Bromo-3-chloro-5,5-dimethylhydantoin Other Ingredients:

4.0% 100.0%

96.0%

TOTAL:

KEEP OUT OF REACH OF CHILDREN DANGER

FIRST AID: IF CONTACT WITH EYES OCCURS: Immediately flush with cold water for at least 15 minutes. Then get immediate medical attention. IF CONTACT WITH 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 to fresh air. If breathing is difficult, have trained person administer oxygen. If not breathing, give artificial respiration. Call a physician immediately. IF SWALLOWED: Drink large amounts of water. DO NOT induce vomiting. Avoid alcohol. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. [IN CASE OF MEDICAL EMERGENCY, CALL [1-303-623-5716] [telephone number supplied by supplemental registrant].]

See [back] [side] panel for additional precautionary statements.

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MANUFACTURED BY: IOLAB, INC. DECATUR, GEORGIA

EPA REG. # 5185-420 EPA EST. # 5185-GA-1

**NET WEIGHT:** 

(Directions for use on this label are divided into two sections on this label (a) recreational water treatment and (b) industrial and institutional applications.;

{The following sets of directions are for recreational water treatment.}

{Directions to be used for swimming pool sanitization.}

## **SWIMMING POOL SANITIZER**

This product, when used as directed, is effective as a swimming pool water sanitizer and disinfectant.

DIRECTIONS FOR USE: It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Read entire label and use strictly in accordance with precautionary statements and directions.

Ensure all pool equipment is working properly. Backwash the filter system following manufacturer's directions. Adjust pH to between 7.2-7.6. When using other products as outlined in directions for this product, always follow directions on those products. A bromine or chlorine residual of 1-2 ppm must first be established in the pool. If the residual is established with this product in a brominator, use the brominator at the highest feed rate following manufacturer's recommendations. When the bromine residual reaches 1-2 ppm, adjust the brominator feed rate to assure a constant treatment level of {optional text: ther residential or commercial or both will be used on label} [1-3 ppm in residential pools] [and] [3-5 ppm in commercial pools]. Regular use of a test kit or test strips is necessary to maintain a bromine residual in the pool water.

{Directions to be used for brominating cartridge system.}

#### SWIMMING POOL SANITIZER

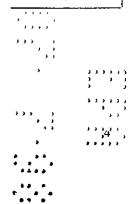
For use as a Disinfectant, Sanitizer, Bactericide, Slimicide, and Algicide in Swimming Pools.

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The Brominating Cartridge System is part of an advanced Feeder/Cartridge Delivery System that efficiently controls bacteria and algae for weeks under normal conditions in a balanced pool. The convenient disposable cartridge lets you control the rate of delivery to meet changing conditions in your pool, by simply adjusting the control dial on the delivery system. You never have to touch the chemical. USE ONLY IN BROMINATING CARTRIDGE SYSTEM.

DIRECTIONS FOR USE: It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Read entire bel and use strictly in accordance with precautionary statements and directions.

Ensure all pool equipment is working properly. Backwash the filter system following manufacturer's directions. Adjust pH to between 7.2-7.6. Superchlorinate if needed. When using other products as outlined in directions for this product, always follow directions on those products. TO INSTALL CARTRIDGE: Take feeder cap off. Remove cartridge tabs A and B where designated (see diagram). Hold cartridge so the open end faces down. Point the arrow in the direction of the water flow (towards pool). Insert into feeder with the male end of the cartridge aligned with the female end located inside the bottom of the feeder (see diagram). DO NOT FORCE. Replace feeder-cap and set the control dial to the appropriate setting. Begin with the control dial set on 2 for a 13,500 gallon pool with a pump running 8 hours/day. Check bromine residual in 24 hours and increase/decrease feeder setting to maintain 1-3 ppm bromine residual. During superchlorination of pool, turn setting to 0 before superchlorination. Establish bromine residual and return the feeder to the normal operating setting. Check the feeder canister periodically and replace when empty. Do not attempt to open or refill this cartridge.



# SWIMMING POOL SANITIZER

When used as directed this product is effective as a swimming pool water sanitizer and disinfectant.

DIRECTIONS FOR USE: It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Read entire label directions and use strictly in accordance with precautionary statements and directions.

The filtration system should be in proper working condition. Maintain the pH between 7.2 and 7.6, the total alkalinity between 120 to 150 ppm, and calcium hardness between 150 and 300 ppm. Regular use of a good test kit or test strips will help determine optimum operating conditions for your pool. Establish a 1.5 to 3.0 ppm active halogen (chlorine) residual with a granular hypochlorite product (e.g. calcium or lithium hypochlorite). Follow use directions on that product's label. Initially place in pool's plastic skimmer basket, two of this product per 5,000 gallons of water. Divide total number of pucks evenly for pools with multiple skimmers. Add additional product as needed to maintain a bromine level of 0.4 to 0.8 ppm. It is not necessary to remove partially dissolved product prior to adding additional product. Keep skimmer free of debris to maximize water flow over this product. This product may be used in plastic skimmers only if skimmer and the piping between skimmer and pump are plastic. Do not add other chemicals through the skimmer when using this product in skimmer as an explosion or fire may result. Do not turn pump off for more than 8 hours in vinyl pools when pucks are in skimmer. Operate pool recirculation system a minimum of 10 hours per day. The amount of product and frequency of addition will vary with the number of swimmers, water temperature, rain showers and pump operating time.

Directions to be used for unipak)

#### SWIMMING POOL SANITIZER

This product is an easy and economical way to regulate the bromine that sanitizes your pool. When used as directed, this product continuously releases the correct amount of bromine in a constant flow to reduce the growth of harmful algae and microorganisms in your pool.

DIRECTIONS FOR USE: It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Read entire label directions and use strictly in accordance with precautionary statements and directions.

The filtration system should be in proper working condition. Maintain the pH between 7.2 and 7.6, the total alkalinity between 120 to 150 ppm, and calcium hardness between 150 and 300 ppm. Regular use of a good test kit or test strips will help determine optimum operating conditions for your pool. Establish a 1.5 to 3.0 ppm active halogen (chlorine) residual with a granular hypochlorite product (e.g. calcium or lithium hypochlorite). Follow use directions on that product's label. Use a sharp knife and cut in direction away from your body and limbs to remove the appropriate number of bumps from the UniPak. For pools under 10,000 gallons, remove 2 "bumps" from Unipak above 10,000 gallons, remove 1 "bumps" from Unipak and place Unipak in pool's skimmer basket. Make certain holes are wide open to allow water to flow through freely. If necessary add a second Uni-Pak to maintain a bromine reading of 0.4 - 0.8 ppm. Divide total number of filled Uni-Paks evenly for pools with multiple operating skimmers. This product is designed to be used with a Uni-Pak. It is not necessary to remove partially dissolved tablets prior to making subsequent tablet additions. Do not add any other chemical through the skimmer when using this product in the Uni-Pak. Keep skimmer free of debris to maximize water flow over product in the Uni-Pak. During superchlorination, remove UniPak from pool. Place UniPak in a empty clean, dry plastic container. Place it back in pool when the process is completed. Do not completely submerge UniPak or allow holes to become clogged. This could trap excess amount of bromine gas possibly resulting in a violent explosion.

After 24 hours check residual bromine level with a test kit. If residual bromine level is below 0.4 ppm cut-off one additional "bump" until bromine stabilizes at 0.4-0.8 ppm. If the residual bromine is too high, seal one set of holes with waterproof plastic tape. When ready for replacement, this product will float on its side. Operate pool recirculation system a minimum of 10 hours per day? The amount of product and frequency of addition will vary with the number of swimmers, water temperature, rain showers and pump operating time.

### UNIPAK REFILL INSTRUCTIONS:

Remove UniPak from pool skimmer. Remove lid from UniPak and fill with product. It is not necessary to remove partially dissolved product prior to adding additional product. Replace lid and place Unipak in skimmer. Do not add any other chemicals to this Unipak.

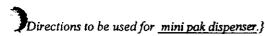
{Directions to be used for spa and hot tub sanitization.}

#### SPA AND HOT TUB SANITIZER

When used as directed, this product is effective as a spa and hot tub sanitizer and disinfectant.

DIRECTIONS FOR USE: It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Read entire label and use strictly in accordance with precautionary statements and directions.

Ensure all spa equipment is working properly. Backwash the filter system following manufacturer's directions. Adjust pH to between 7.2-7.6. When using other products as outlined in directions for this product, always follow directions on those products. Fill spa bromine feeder with this product and adjust feeder following manufacturer's directions to yield bromine residual between {optional text: either residential or commercial or both will be used on label} [2-4 ppm in residential spas] [and] [4-6 ppm in commercial spas]. Check feeder regularly and add additional product as needed to maintain the bromine residual. The pump and filter should be operated for at least three hours every day whether spa is used or not. Do not heat water above 102°F. Keep the spa free of leaves and other debris. To maintain clear, clean water and insure the performance of your spa chemicals, spas should be drained and refilled with fresh water {optional text: either residential or commercial or both will be used on label} [every 60 days in residential spas] [or] [a minimum of every 7 days in commercial spas].



# SPA AND HOT TUB SANITIZER

When used as directed, this product is effective as a spa and hot tub sanitizer and disinfectant.

DIRECTIONS FOR USE: It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Read entire label and use strictly in accordance with precautionary statements and directions.

Ensure all spa equipment is working properly. Backwash the filter system following manufacturer's directions. Adjust pH to between 7.2-7.6. When using other products as outlined in directions for this product, always follow directions on those products. Place one or more of this product in skimmer basket. Do not allow this product to come in direct contact with the surface of the spa or damage to spa surface may result. A sufficient number of this product must be used to maintain bromine residual of 2-4 ppm in residential spas. Normally, one of this product for each 200 gallons, or fraction, of water will be sufficient to maintain proper bromine levels. The pump and filter should be operated for at least three hours every day. Do not heat water above 102°F. Keep the spa free of leaves and other debris. Backwash or clean the filter often. Residential spas and hot tubs should be drained and refilled with fresh water every 60 days.

{Directions to be used for floaters.}

# SPA AND HOT TUB SANITIZER

When used as directed, this product is effective as a residential spa and hot tub water sanitizer and disinfectant.

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DIRECTIONS FOR USE: It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Read entire label and use strictly in accordance with precautionary statements and directions.

Ensure all spa equipment is working properly. Backwash the filter system following manufacturer's directions. Adjust pH to between 7.2-7.6. When using other products as outlined in directions for this product, always follow directions on those products. Place this product in spa and let it float freely in the spa or hot tub. Under normal use conditions, use one dispenser per 350 gallons of spa or hot tub water. However, under heavy bather loading or reduced water circulation, additional dispensers may be used to maintain constant active bromine residuals of 2-4 ppm in residential spas or hot tubs. To increase the bromine residual, turn the rotating cap to a higher number located in the flow indicator window. To decrease the bromine residual, turn to a lower number in the flow indicator window.

To a freshly filled spa or hot tub, begin with an indicator setting of #5. Check the bromine residual frequently. When a 2-4 ppm bromine residual is obtained, lower the flow indicator setting to maintain constant bromine residuals. The pump and filter should be operated for at least three hours per day. Do not heat water above 102°F. Keep the spa free of leaves and debris. Residential spas and hot tubs should be drained, cleaned and refilled with fresh water every 60 days.

{Clear Child Resistant - Outer Sleeve} REMOVE ALONG DOTTED LINE

EASY DIRECTIONS: Twist cap to setting #5. Put chemical dispenser in spa water. Test bromine residual frequently (approx. every 2 hours). Upon achieving 2-4 ppm reduce to maintenance setting #1-#2 for maximum longevity.

TO ADJUST SETTING: For ease of adjustment place in water. Grip cap family in one hand. With other hand, grip below windows firmly (Fingers should grip only bottom of canister.) Turn cap and outer sleeve in one posite directions.

{Directions to be used for water features.}

### WATER FEATURES:

This product, when used as directed, is effective as a water feature sanitizer and disinfectant.

DIRECTIONS FOR USE: It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Read entire label and use strictly in accordance with precautionary statements and directions.

Ensure all equipment is working properly. Backwash the filter system (if present) following manufacturer's directions. Adjust pH to tween 7.2-7.6. When using other products as outlined in directions for this product, always follow directions on those products.

A bromine or chlorine residual of 1-2 ppm must first be established in the water. If the residual is established with this product in a brominator, use the brominator at the highest feed rate following manufacturer's renommendations. When the bromine residual reaches 1-2 ppm adjust the feeder accordingly. To maintain bromine residual, adjust the brominator feed rate to assure a constant treatment level of 1-3 ppm. Regular use of a test kit is necessary to maintain a bromine residual in the water.

{The following directions are for use on industrial and institutional products. One or more use patterns may appear on a single end use label.}

{This Direction for Use statement will be used when directions for industrial and institutional uses appear on the label.}

[DIRECTIONS FOR USE: It is a violation of federal law to use this product in any manner inconsistent with its labeling. Read entire label and use strictly in accordance with precautionary statements and directions.]

{Directions to be used for photo processing wash water treatment; when sold as tablets}

### CONTROL OF BIOLOGICAL GROWTH IN PHOTO PROCESSING WASH WATERS

When used as directed, this product will control microbiological growth in photo processing wash water.

# **Product Application**

The photo processing system should first be properly cleaned with a mild hypochlorite solution following manufacturer's instructions. The use of this product is not intended to remove an existing buildup of biological growth. These tablets slowly release both hypobromous and hypochlorous acid when exposed to a flow of water. To prevent or substantially reduce biological growth, tablets should be introduced into the water supply line after the water mixing valve and before the processor wash tanks. IMPORTANT. DO NOT USE WATER FROM THIS LINE TO MIX CHEMICALS! This may be accomplished by placing 4 to 5 tablets into an empty filter lousing or chemical feeder plumbed in at that point. The feeder apparatus should be equipped with a flow regulating valve to control the introduction of bromine and chlorine into the water. Begin feeding tablets with the regulating valve at a low setting. If biological growth is observed, increase the flow in small increments until growth is controlled. It is intended that 1.0 to 3.0 ppm of residual bromine be introduced into the water supply line. Three (3) to 9 grams of tablets will introduce 1.0 to 3.0 residual bromine in 1,000 gallons of water. Actual use will depend on the amount of biological fouling. To avoid excess introduction of bromine/chlorine into the processor wash tanks, a bromine or chlorine test kit should be used to periodically test the water in the wash tanks. If a residual above 3.0 ppm bromine is indicated, the feed rate of tablets should be reduced until the residual drops to 1.0 ppm.

{Directions to be used for photo processing wash water treatment; when sold as lab pak (tablets in an erosion container)}

# CONTROL OF BIOLOGICAL GROWTH IN PHOTO PROCESSING WASH WATERS

When used as directed, this product will control microbiological growth in photo processing wash water.

### **Product Application**

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The photo processing system should first be properly cleaned with a mild hypochlorite solution following manufacturer's instructions. The use of this product is not intended to remove an existing buildup of biological growth. This product slowly release both hypobromous and hypochlorous acid when exposed to a flow of water. To prevent or substantially reduce biological growth, this product may be introduced into the wash water by suspending one or more lab paks directly in the wash tanks as far as possible from film or paper and away from areas of extreme turbulence. Begin by placing one lab pak in the wash tank. If biological growth is observed, add more lab paks, one at a time, waiting several hours between additions. To prevent film damage, rinse lab pak(s) in water before placing into wash tank. It is intended that 1.0 to 3.0 ppm of residual bromine be introduced into the water supply line. IMPORTANT. DO NOT USE WATER FROM THIS LINE TO MIX CHEMICALS! Three (3) to 9 grams of tablets will introduce 1.0 to 3.0 residual bromine in 1,000 gallons of water. Actual use will depend on the amount of biological fouling. To avoid excess introduction of bromine/chlorine into the processor wash tanks, a bromine or chlorine test kit should be used to periodically test the water in the wash tanks. If a residual above 3.0 ppm bromine is indicated, remove lab paks until the residual drops to 1.0 ppm. If the processor is turned off for any extended period of time, the lab paks in the wash tanks should be removed.

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# RECIRCULATING COOLING WATER SYSTEMS:

When used as directed, this product effectively controls algal, bacterial, and fungal slimes in commercial and industrial cooling towers, cooling ponds, influent water systems including flow through filters, heat exchangers, industrial water scrubbing systems, brewery pasteurizers and industrial air washers equipped with mist eliminators.

# **ONCE-THROUGH COOLING WATER SYSTEMS:**

When used as directed, this product effectively controls algal, bacterial and fungal slimes in open or closed-cycle, fresh or salt water, once-through cooling systems. Treat cooling water with this product at the system intake or other critical areas, where mixing is uniform.

# **EVAPORATIVE COOLER:**

When used as directed, this product effectively controls algal, bacterial, and fungal slimes.

# DOSAGE RATES

Initial Dose: When the system is noticeably fouled, add 0.2 to 0.6 lbs/1000 gallons (0.24 to 0.72 kg/10,000L) of water ontained in the system. Repeat initial dosage until one to three ppm (mg/L) bromine residual is established for at least four hours.

Subsequent Dose: When microbial control is evident, add 0.1 to 0.3 lbs/1000 gallons (0.12 to 0.36 kg/10,000L) of water contained in the system. Repeat as needed to maintain one to three ppm bromine residual for at least four hours.

## COMMERCIAL AIR CONDITIONER AND DEHUMIDIFIER BASINS OR DRIP PANS:

When used as directed, this product effectively controls microbial slimes in areas where water collects.

#### DOSAGE RATES

Place this product in the basin or drip pan close to the outlet drain. Use one or more tablets as necessary to maintain the cleanliness of the system. The number of tablets needed will vary with temperature, humidity, and condensate volume.

## WASTEWATER TREATMENT SYSTEMS:

When used as directed, this product effectively controls algal, bacterial and fungal slimes and offers rapid disinfection of primary, secondary and tertiary wastewater treatment systems.

## DOSAGE RATES

Add 0.1 to 0.6 lbs/1000 gallons (0.12 to 0.72 kg/10,000 L) of water treated to maintain a 0.5 to 5.0 mg/L bromine residual at the injection point in the disinfection contact chamber. Adjust this product's dosage to achieve disinfection and minimize the halogen concentration at the exit of the contact chamber. Do not use treated wastewater to irrigate crops.

Treatment levels can be measured with test kits for either bromine or chlorine. Tests should be made immediately after drawing water samples from the system. Use test kits according to directions.

- 1. When a bromine test kit is used, results can be read directly as ppm bromine.
- 2. When a chlorine test kit is used, results can be expressed in terms of bromine by multiplying chlorine values by the conversion factor 2.25.

#### PULP AND PAPER MILLS

When used as directed this product effectively controls algal, bacterial, and fungal slime in pulp and paper mill fresh and sea water influent water systems; cooling water systems, wastewater treatment systems, service water systems, white water systems, and other process water.

This product is intended for use as a slimicide for the process water used in the manufacture of paper and paperboard products that do not contact food. Treat water at critical areas in the system process where mixing of the product with influent will be uniform. The frequency and duration of the treatment will depend upon the severity of the problem. Badly fouled process systems must be cleaned before initial treatment.

## **Product Application**

### TREATMENT BY SYSTEM VOLUME

When a system is noticeably fouled: add 0.1 to 1.0 lbs of this product to 1,000 gallons or 12 to 120 parts per million of water in the system.

When biological control is evident: add 0.1 to 0.75 lbs of this product to 1,000 gallons or 12 to 90 parts per million of water in the system.

## TREATMENT BY RESIDUAL METHOD

Add sufficient amount of this product to maintain a measured residual up to 5 ppm as bromine. Once biological control is evident, the use of this product normally can be reduced to something less than 1 ppm as bromine.

# {OPTIONAL STATEMENT}

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[An alternate method of calculating the appropriate level of this product is to estimate the paper mill's daily production, then add, over a 24 hour period, up to 600 grams (1.3 pounds) of this product per dry ton of paper produced over a twenty-four (24) hour period. Test for bromine to verify the level of 5 ppm is not being exceeded.]

# RECIRCULATING COOLING WATER SYSTEMS:

When used as directed, this product effectively controls algal, bacterial, and fungal slimes in commercial and industrial cooling towers, cooling ponds, influent water systems including flow through filters, heat exchangers, industrial water scrubbing systems, brewery pasteurizers and industrial air washers equipped with mist eliminators. Add this product using a bypass feeder or broadcast into an open area in the system such as a cooling tower basin or deck, where sufficient agitation is present to promote rapid mixing and dissolution.

# ONCE-THROUGH COOLING WATER SYSTEMS:

When used as directed, this product effectively controls algal, bacterial and fungal slimes in open or closed-cycle, fresh or salt water, once-through cooling systems. Treat cooling water with this product at the system intake or other critical areas, where mixing is uniform. Add this product to the system inlet water or before any other contaminated area in the system.

# DOSAGE RATES

Initial Dose: When the system is noticeably fouled, add 0.2 to 0.6 lbs/1000 gallons (0.24 to 0.72 kg/10,000L) of water contained in the system. Repeat initial dosage until one to three ppm (mg/L) bromine residual is established for at least four hours.

ubsequent Dose: When microbial control is evident, add 0.1 to 0.3 lbs/1000 gallons (0.12 to 0.36 kg/10,000L) of water contained in the system. Repeat as needed to maintain one to three ppm bromine residual for at least four hours.

# WASTEWATER TREATMENT SYSTEMS:

When used as directed, this product effectively controls algal, bacterial and fungal slimes and offers rapid disinfection of primary, secondary and tertiary wastewater treatment systems.

## DOSAGE RATES

Add 0.1 to 0.6 lbs/1000 gallons (0.12 to 0.72 kg/10,000 L) of water treated to maintain a 0.5 to 5.0 mg/L bromine residual at the injection point in the disinfection contact chamber. Adjust this product's dosage to achieve disinfection and minimize the halogen concentration at the exit of the contact chamber. Do not use treated wastewater to irrigate crops.

Treatment levels can be measured with test kits for either bromine or chlorine. Tests should be made immediately after drawing water samples from the system. Use test kits according to directions.

When a bromine test kit is used, results can be read directly as ppm bromine.

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2. When a chlorine test kit is used, results can be expressed in terms of bromine by multiplying chlorine values by the conversion factor 2.25.

## PULP AND PAPER MILLS

When used as directed this product effectively controls algal, bacterial, and fungal slime in pulp and paper mill fresh and sea water influent water systems; cooling water systems, wastewater treatment systems, service water systems, white water systems, and other process water.

This product is intended for use as a slimicide for the process water used in the manufacture of paper and paperboard products that do not contact food. Treat water at critical areas in the system process where mixing of the product with influent will be uniform. The frequency and duration of the treatment will depend upon the severity of the problem. Badly fouled process systems must be cleaned before initial treatment.

## Product Application

# TREATMENT BY SYSTEM VOLUME

When a system is noticeably fouled: add 0.1 to 1.0 lbs of this product to 1,000 gallons or 12 to 120 parts per million of water in the system.

When biological control is evident: add 0.1 to 0.75 lbs of this product to 1,000 gallons or 12 to 90 parts per million of water in the system.

## TREATMENT BY RESIDUAL METHOD

Add sufficient amount of this product to maintain a measured residual up to 5 ppm as bromine. Once biological control is evident, the use of this product normally can be reduced to something less than 1 ppm as bromine.

# {OPTIONAL STATEMENT}

[An alternate method of calculating the appropriate level of this product is to estimate the paper mill's daily production, then add, over a 24 hour period, up to 600 grams (1.3 pounds) of this product per dry ton of paper produced over a twenty-four (24) hour period. Test for bromine to verify the level of 5 ppm is not being exceeded.]

{Directions for treating cooling water systems.: product form, powder}

## RECIRCULATING COOLING WATER SYSTEMS:

When used as directed, this product effectively controls algal, bacterial, and fungal slimes in commercial and industrial cooling towers, cooling towers, influent water systems such as flow through filters and lagoons, etc.; heat exchange water systems; industrial water scrubbing systems; brewery pasteurizers; and industrial air washing systems equipped with a mist eliminator.

#### ONCE-THROUGH COOLING WATER SYSTEMS:

For the control of algal, bacterial and fungal slimes in once-through and closed-cycle, fresh and salt water cooling systems; cooling ponds; canals; and lagoons, add this product to the system inlet water or before any other contaminated area in the system.

## DOSAGE RATES

Initial Dose: When the system is noticeably fouled, add 0.2 to 0.6 lbs/1000 gallons (0.24 to 0.72 kg/10,000L) of water contained in the system. Repeat initial dosage until one to three ppm (mg/L) bromine residual is established for at least four hours.

Subsequent Dose: When microbial control is evident, add 0.1 to 0.3 lbs/1000 gallons (0.12 to 0.36 kg/10,000L) of water contained in the system. Repeat as needed to maintain one to three ppm bromine residual for at least four hours.

The following statement is for use on products with spa directions.}
[Reentry into treated spas is prohibited above levels of 8 ppm bromine due to risk of body injury.]

{The following statement is for use on products with swimming pool directions.}
[Reentry into treated swimming pools is prohibited above levels of 8 ppm bromine due to risk of body injury.]

{Storage and Disposal instructions for products with recreational use patterns, e.g. swimming pool & spa products}

[STORAGE AND DISPOSAL: Keep this product dry in original tightly closed container when not in use. Store in a cool dry, well ventilated area away from heat or open flame. Moisture may decompose this product and cause a violent reaction leading to fire and explosion. In case of decomposition, isolate container if possible and flood area with large amounts of water to dissolve all material before discarding this container. Do not contaminate food or feed by storage or disposal. CONTAINER DISPOSAL: Do not reuse container, but place in trash collection. Rinse thoroughly before discarding in trash.]

{Storage and Disposal instructions for institutional and industrial applications.}

[STORAGE: Keep this product dry in original tightly closed container when not in use. Store in a cool, dry, well ventilated area away from heat or open flame. Moisture may decompose this product and cause a violent reaction leading to fire and explosion. In case of decomposition, isolate container if possible and flood area with large amounts of water to dissolve all material before discarding this container. Do not contaminate food or feed by storage or disposal.]

[Disposal statement for labels used with pails or drums.]

[DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. DO NOT REUSE EMPTY CONTAINER. Triple rinse the container (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incinerate. Burn only if allowed by state and local authorities. If burned, stay out of smoke.]

{Disposal statements for labels used with bags, i.e. super sacks}

[DISPOSAL: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.]

# 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 safety glasses and rubber gloves when handling this production in the production of the production of

PHYSICAL OR CHEMICAL HAZARDS STRONG OXIDIZING AGENT: Do not mix with other chemicals. Mix only with water. Never add water to product. Always add product to large quantities of water. Use clean dry utensils. Do not add this product to any dispensing device containing remnants of any other product. Such use may cause a violent reaction leading to fire or explosion. Commination with moisture, organic matter or other chemicals will start a chemical reaction and generate heat, hazardous gas, possible fire and explosion. In case of contamination or decomposition, do not reseal container. If possible, isolate container in open air or well

{Environmental hazards statement for end-use products in containers of less than 5 gallons (liquid) or less than 50 pounds (solid, dry weight).}

[ENVIRONMENTAL HAZARDS: This pesticide is toxic to fish and aquatic organisms.]

ventilated area. Flood area with large volumes of water.

{Environmental hazards statement for end-use products in containers of equal to or greater than 5 gallons (liquid) or equal to or greater than 50 pounds (solid, dry weight). }

[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.]

NOTE: Buyer assumes all responsibility for safety and use not in accordance with directions.