

10324-133

DEC 14 2011

Elizabeth Tannehill  
Mason Chemical Company  
721 W. Algonquin Rd.  
Arlington Heights, Il 60005

SUBJECT: Maquat® MC1416-FB (EPA Registration Number: 10324-97)  
Maquat® MC1416-V (EPA Registration Number: 10324-116)  
Maquat® MC1416-10% CTP (EPA Registration Number: 10324-130)  
Maquat® MC1416-40% CTP (EPA Registration Number: 10324-133)  
Application Date: November 7, 2011  
Receipt Date: November 15, 2011

Dear Ms. Tannehill:

This letter acknowledges receipt of the notification identified above submitted under provisions of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) as amended and PR Notice 98-10 and 40 CFR 152.46.

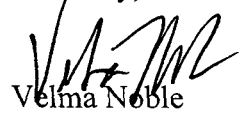
- The Addition of a note to reviewer on page 2 on the family labels belonging to the active Maquat® MC1416.

Based on a review of the submitted information, this notification is acceptable. A copy has been inserted in your file for future reference.

**General Comments**

Should you have any questions concerning this letter, please contact Emilia Oiguenblik at (703) 347-0199 or Velma Noble at (703) 308-6233.

Sincerely,



Velma Noble  
Product Manager (31)  
Regulatory Management Branch I  
Antimicrobials Division (7510P)

**CONCURRENCES**

SYMBOL	SURNAME	DATE					



United States  
**Environmental Protection Agency**  
 Washington, DC 20460

<input type="checkbox"/>	Registration
<input type="checkbox"/>	Amendment
<input checked="" type="checkbox"/>	Other

OPP Identifier Number

**Application for Pesticide - Section I**

1. Company/Product Number 10324-	2. EPA Product Manager Noble	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Maquat MC1416-40% CTP	PM# 31	
5. Name and Address of Applicant (Include ZIP Code) Mason Chemical Company 721 W. Algonquin Rd. Arlington Heights, IL 60005 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. <u>Maquat MC1416-V</u> Product Name <u>10324-116</u>	

**Section - II**

<input type="checkbox"/> Amendment - Explain below.	<input checked="" type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

**Explanation: Use additional page(s) if necessary. (For section I and Section II.)**

We are adding a "Note to Reviewer" statement on page 2.

This notification is consistent with the provisions of PR Notice 95-2 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA, and further understand that if this notification is not consistent with the terms of PR Notice 95-2 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

We feel this is a Notification and requires no fee payment. We understand the EPA will contact us with payment information, if needed, upon receipt of application.

Contact Information: Elizabeth (Liz) Tannehill, liz@maquat.com fax number 847-290-1625 voice number 847-290-1621

**Section - III**

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Metal	<input checked="" type="checkbox"/> Plastic
				<input type="checkbox"/> Glass	<input type="checkbox"/> Paper
* Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt	No. per container
					Other (Specify) _____
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input checked="" type="checkbox"/> Container		4. Size(s) Retail Container 1 qt., 1 gal., 5 gal., 55 gal.		5. Location of Label Directions <input checked="" type="checkbox"/> On Label	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Paper glued <input checked="" type="checkbox"/> Stenciled			<input type="checkbox"/> Other _____		

**Section - IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Elizabeth Tannehill	Title Regulatory Manager	Telephone No. (Include Area Code) 847-290-1621
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)  _____ _____ _____
2. Signature 	3. Title Regulatory Manager	
4. Typed Name Elizabeth Tannehill	5. Date 11/7/11	



# MASON

The Specialty Chemicals Company

November 7, 2011

Velma Noble  
Document Processing Desk (AMEND)  
Office of Pesticide Programs (7510P), PM31  
U.S. Environmental Protection Agency  
Room S4900, One Potomac Yard  
2777 S. Crystal Dr.  
Arlington, VA 22202

Subject: Maquat® MC1416-FB (10324-97), Maquat® MC1416-V (10324-116), Maquat® MC1416-10% CTP (10324-130) and Maquat® MC1416-40% CTP (10324-133)  
**Notification**

Dear Velma,

**This is a Notification for the addition of a "Note to Reviewer" on page 2 on the family of labels belonging to the active Maquat MC1416 and does not require a fee.**

Enclosed are the following items:

1. Application/Notification form (4 included – one for each label)
2. One (1) copy of label –4 individual labels included

Based on a conversation between Erin Tesch (TSG) and EPA on our behalf, it is noted that the paragraph on page 2 starting with "Use of the products in either public/municipal or single or multiple family....." is not required for recirculating cooling tower systems. Therefore, we are adding a note to the reviewer stating this paragraph is limited to Once Through Cooling Systems.

**This is the only change being made on these labels.**

If you have any questions or need any further information, please do not hesitate to contact me at (800) 362-1855 or [liz@maquat.com](mailto:liz@maquat.com). Your prompt attention to this matter is most appreciated.

Very truly yours,

MASON CHEMICAL COMPANY

  
Elizabeth Tannehill

Enclosures

**MASON CHEMICAL COMPANY**  
"The Quaternary Specialists"

721 W. Algonquin Road | Arlington Heights, IL 60005 | 847-290-1621 or 800-362-1855

E.P.A. Reg. No. 10324-133  
E.P.A. Est. No. 10324-IL-1

**MAQUAT® MC1416-40% CTP**

Net Contents:

Batch No.

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**DANGER. KEEP OUT OF REACH OF CHILDREN.** Corrosive. Causes irreversible eye damage and skin burns. May be fatal if swallowed. Harmful if absorbed through the skin. Do not get into eyes, on skin or on clothing. Wear goggles or face shield, protective clothing, and rubber gloves when handling. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Remove contaminated clothing and wash clothing before reuse.

*(If container is 5 gallons or larger the following statement must appear on the label)*

**ENVIRONMENTAL HAZARD**

This pesticide is toxic to fish, aquatic invertebrates, oysters, and shrimp. 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 into sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

*(If container is less than 5 gallons use the following environmental hazard statement.)*

**ENVIRONMENTAL HAZARD**

This product is toxic to fish.

**PHYSICAL OR CHEMICAL HAZARDS**

Do not mix with soap, anionic detergents or oxidizers.  
Do not use or store near heat or open flame.

**FIRST AID**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**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 IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF SWALLOWED:** Call a 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 a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

Controls bacteria and algae in industrial and/or commercial recirculating cooling water towers, Auxillary Water and Waste Water Systems and Water Cooling Systems, Oil Field Water Flood/Salt Water Disposal Systems, Retort Water Systems. Controls bacteria and fungal slimes in pulp, paper mills, and paper manufacturing. *(Use for Retort Water Systems not allowed in California)*

**ACTIVE INGREDIENTS**

Alkyl (60%C<sub>14</sub>, 30%C<sub>16</sub>, 5%C<sub>12</sub>, 5%C<sub>18</sub>) dimethyl benzyl ammonium chloride ..... 40.00%

**INERT INGREDIENTS:** ..... 60.00%

**TOTAL:** ..... 100.00%

Weight Approx. 8 lb/gal.

**KEEP OUT OF REACH OF CHILDREN  
DANGER**

See left (back) (side) (right) panel of label) (below) for additional precautionary statements and first aid statements.

*(Note to Reviewer: This information has been verified per DOT regulations. It is NOT required to be on the label but is being requested by a customer.)*

**Transportation Information**

**DOT Hazard Class:** 8 Corrosive

**DOT Proper Shipping Name:** Disinfectant Liquid Corrosive (Quaternary Ammonium Compound), 8, UN1903, PGIII

**PELIGRO: SI NO PUEDE LEER EN INGLES, PREGUNTE A SU SUPERVISOR SOBRE LAS INSTRUCCIONES DE USO APROPIADAS ANTES DE TRABAJAR. CON ESTE PRODUCTO.**

Manufacturing and/or Lot no. Date:

**NOTIFICATION**

Date Reviewed: 12/14/2011

Reviewed By: E. Brignone L. C.

This formulation (Maquat® MC1416-40% CTP) is for use in:

- Industrial and/or commercial recirculating cooling water towers.
- Once through water cooling systems.
- Paper mills and paper mill process water systems.
- Oil field water flood or salt water disposal system and fracturing fluids.
- Oil field injection and waste water.
- Gas production and transmission pipelines and systems.
- Gas storage wells and systems.
- Pipeline pigging and scraping operations.
- Drilling, completion and workover fluids systems.
- Packer fluids.
- Hydrotesting

This product has been designed specifically for control of sulfate-reducing bacteria (SRB) that contribute to souring, the production of sulfide, and abiotic corrosion in water cooling systems, paper mill process water systems, oil field systems, gas production and transmission pipelines and systems.

A microbiocide for use in controlling sulfate-reducing bacteria and slime forming bacteria in oil well drilling, oil field processing applications, oil field water systems, oil and gas productions and transmission pipelines and systems, and gas storage fields and equipment; such as steam-injection water holding tanks, flood water, injection water, holding pond water, disposal-well water, water holding tanks, fuel storage tanks and related refinery and oil field closed, industrial recirculating water handling systems.

A highly effective microbiocide for use in controlling bacteria including slime forming bacteria and sulfate-reducing bacteria (SRB) and fungi (yeast and molds) and algae in air washers and industrial scrubbing systems, recirculating cooling and process water systems including those that contain reverse osmosis membranes and in service water and auxiliary systems and heat transfer systems and in wastewater systems including wastewater sludge and holding tanks, and in paper mills and paper mill process water systems and water based coatings for paper and paperboard.

This product is efficient and stable in use dilution.

### DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Please read entire label and use strictly in accordance with precautionary statements and directions.

Do not use water containing residues from use of this product to irrigate crops for food or feed.

*(Note to Reviewer: This paragraph will be used only for Once Through Cooling Systems)*  
Use of the product in either public/municipal or single or multiple family private/residential potable/drinking water systems is strictly prohibited. Use of the product in any cooling water system that discharges effluent within ¼ mile of either a public/municipal or single or multiple family private/residential potable/drinking water intake is strictly prohibited.

### INDUSTRIAL WATER TREATMENT

This product aids in the control of bacterial, fungal and algal slimes in evaporative condensers, heat exchange water systems, industrial and commercial cooling towers, influent systems such as flow through filters and lagoons, industrial water scrubbing systems and brewery pasteurizers.

### INDUSTRIAL AND/OR COMMERCIAL RECIRCULATING COOLING WATER TOWERS, RETORT WATER SYSTEMS, EVAPORATIVE CONDENSERS, HEAT EXCHANGE WATER SYSTEMS, INFLUENT SYSTEMS

*(Retort Water Systems not for use in California)*

1. **Dosing Location:** This product is to be applied at a point in the system where it will be uniformly mixed, such as at the sump.
2. **Dosing Conditions:** This product must be applied when the system is in jeopardy of being affected or after cleaning systems where efficiency is already impaired. Tower bleed off valves must be closed to permit a retention time of 4 hours.
3. **Method Of Application:**

#### a. SLUG OR INTERMITTENT FEEDING

**Initial Product Application:** When growth is evident apply 6.4 to 12.8 fluid ounces (20 to 40 ppm) of this product per 1000 gallons of contained water. This dose may be repeated until control is achieved. When heavy growth is present system must be cleaned before treatment is begun.

**Subsequent Application:** When microbial control is evident apply 1.6 to 4.8 fluid ounces (5 to 15 ppm) of this product per 1000 gallons of contained water. The above directions must be followed once per week or as needed to maintain control.

#### b. MODIFIED INTERMITTENT METHOD

**Initial Dose:** When the system is noticeable fouled, apply 6.4 to 12.8 fluid ounces (20 to 40 ppm) per 1000 gallons of water in the system. Apply half of this initial dose when half of the water in the system has been lost by blowdown.

**Subsequent Dose:** When control of microbial growth is evident, apply 1.6 to 4.8 fluid ounces (5 to 15 ppm) per 1000 gallons of water in the system. Apply half of this subsequent dose when half of the water in the system has been lost by blowdown. Badly fouled systems must be cleaned before treatment is begun.

(OR)

#### INTERMITTENT OR SLUG METHOD

When this treatment is required, add this product at the rate of 6.4 to 12.8 ounces per 1000 gallons of water already in the system, or being added to the system, for 8 to 10 hours, 1 to 4 times per week or as needed to achieve the desired level of control. When control is obtained, add this product at the rate of 1.6 to 4.8 ounces per 1000 gallons of water in the system.

#### c. CONTINUOUS FEED METHOD

**Initial Dose:** When the system is noticeably fouled, apply 6.4 fluid ounces (20 ppm on an active quaternary basis) per 1000 gallons of water in the system.

**Subsequent Dose:** Maintain this treatment by starting a continuous feed of 1.6 fluid ounces (5 ppm on an active quaternary basis) per 1000 gallons of water lost by blowdown. Badly fouled systems must be cleaned before treatment is begun.

#### ONCE THROUGH FRESH AND SEA WATER COOLING SYSTEMS

1. **Dosing Location:** This product is to be applied at a point in the system where it will be uniformly mixed, such as at the sump.
2. **Dosing Conditions:** This product must be applied when the system is in jeopardy of being affected or after cleaning systems where efficiency is already impaired.

3. **Method Of Applications:**

a. **INTERMITTENT OR SLUG METHOD**

**Initial Dose:** When the system is noticeably fouled, apply 0.32 to 3.2 fluid ounces (1 to 10 ppm on an active quaternary basis) per 1000 gallons of water based on system flow rates. The minimum treatment must be 6 to 24 hours. Repeat until control is achieved. Deactivation must be conducted prior to discharge from the system by using bentonite clay at a minimum ratio of 5 ppm clay to 1 ppm product.

**Subsequent Dose:** When microbial control is evident, add 0.16 to 1.6 fluid ounces (.5 to 5 ppm on an active quaternary basis) per 1000 gallons of water based upon system flow rates on a as needed basis to maintain control. Frequency of feed must be tied to an in plant monitoring program for macro fowling growth. Deactivation must be conducted prior to discharge from the system by using bentonite clay at a minimum ratio of 5 ppm clay to 1 ppm product.

**TO DEACTIVATE:** Use bentonite clay at the minimum ratio of 5 ppm clay to 1 ppm product. Deactivation must occur prior to discharge of the NPDES outfall. Do not apply this product more than 4 times a year.

(OR)

**ONCE THROUGH FRESH AND SEA WATER COOLING SYSTEM**

1. **Dosing location:** This product is to be applied at a point in the system where it will be uniformly mixed, such as at the sump.

2. **Dosing conditions:** This product must be applied when the system is in jeopardy of being affected or after cleaning systems where efficiency is already impaired.

3. **Method of applications:**

- Wear safety glasses, rubber gloves and impervious apron.
- To reduce foaming, mix 10 parts of water to 1 part of this product.
- Add product directly from drum or add the product at a point where it will be mixed uniformly.
- Use 0.32 to 3.2 fluid ounces (1-10 ppm on an active quaternary basis) per thousand gallons.
- Do not discharge without performing proper deactivation. To perform deactivation use Bentonite Clay. The minimum ratio to be used is 5 ppm of clay to 5 ppm of product.
- Do not use product more than 4 times per year.
- Treatment time cannot exceed 120 hours/application.
- Avoid oxidizers and reducing agents. Product is cationic and must not be mixed with soap or anionic surfactants.

**TO DEACTIVATE:** Use bentonite clay at the minimum ratio of 5 ppm clay to 1 ppm product. Deactivation must occur prior to discharge of the NPDES outfall. Do not apply this product more than 4 times a year.

**OIL FIELD & GAS PRODUCTION TREATMENT**

Specific treatment requirements vary among oil and/or gas field sites and subsystem components. The Primary point of treatment will vary among oil and/or gas field operations depending on the site problems, water-flood treatment methods and equipment. This product must be added where it will disperse rapidly and uniformly to the desired area of treatment.

Additions of this product must be made with the proper type of metering pump equipment, suction (low pressure) side of pumping equipment or similar device. This

product must be added to the system by slug, continuous or on an intermittent basis, depending on the degree of system fouling.

OR

Specific treatment requirements vary among oil and/or gas field sites and subsystem components. Oil field fluids and subsystems most commonly requiring microbial contamination control are raw water sources, separators, ballast, storage and mixing tanks, screens, surface injection equipment, production equipment (such as injection and production piping casing, completion and valving) and the formation itself. The primary point of treatment will vary among oil and/or gas field operations depending on the site problems, water-flood treatment methods and equipment. This product must be added where it will disperse rapidly and uniformly to the desired area of treatment.

Additions of this product must be made with the proper type of metering pump equipment, suction (low pressure) side of pumping equipment or similar device. This product can be added to the system by slug, continuous or on an intermittent basis, depending on the degree of system found.

**OIL FIELD WATER FLOOD OR SALT WATER DISPOSAL SYSTEMS AND FRACTURING FLUIDS**

- For the control of slime forming and sulfate reducing bacteria in oil field water flood or salt water disposal systems, add 5 – 10 ppm (active) of this product (1.2 – 2.36 gallons per 3,000 barrels of water) continuously. Levels for effective control will vary depending on conditions at the site.
- For intermittent use, dose at rate of 5 – 20 ppm (active) of this product (1.2 – 4.72 gallons per 3,000 barrels of water) for 4 to 8 hours per day, one to four times a week as needed to maintain control.
- For treatment of flow back return water (Post Hydraulic Fracturing – Dose at a rate of 5-20ppm active of this product (1.2 – 4.72 gallons of this product per 3,000 barrels of water) for 4 to 8 hours per day, one to four times a week as needed to maintain control.

**OILFIELD INJECTION AND WASTE WATER**

This product must be added to the water handling system at a point of uniform mixing such as the area of addition of make-up water to the holding tank.

**Method of application:**

- CONTINUOUS INJECTION:** Add this product at 30 ppm active (9.6 fluid ounces per 1000 gallons of water) when system is noticeably fouled. When microbial control is evident, add this product at 15 ppm active (4.8 fluid ounces per 1000 gallons of water) to maintain control.
- BATCH TREATMENT:** Add this product at 180 ppm active (57.6 fluid ounces per 1000 gallons of water) over a period of 4 – 6 hours one or more times per week when the system is noticeably fouled. When microbial control is evident, add this product at 90 ppm active (28.8 fluid ounces per 1000 gallons of water) over a period of 4 – 6 hours one or more time per week.

OR

For use in oil field and/or petrochemical water subsurface injection systems of secondary and/or tertiary oil recovery systems to reduce the number of anaerobic bacteria, aerobic bacteria, sulfate-reducing bacteria.

- DOSING LOCATION** (site of use): This product is to be applied at a point in the recovery system where it will be uniformly mixed, such as at the screens, storage tanks and other mixing device locations.
- DOSING CONDITIONS:** This product should be applied when the system is in jeopardy of being affected. Badly fouled systems must be cleaned before treatment is begun.

**Initial treatment:** Add 65 – 1000 ppm (on an active quaternary basis) of this product (0.5 to 7.9 gallons of this product per 100 barrels) to a freshly prepared fluid. Levels for effective control will vary depending on conditions at the site and the severity of the contamination.

**Maintenance dosage:** Add 65 – 1000 ppm (on an active quaternary basis) of this product (0.5 to 7.9 gallons of this product per 100 barrels) to the fluid. Levels for effective control will vary depending on conditions at the site and the severity of the contamination.

#### PACKER FLUIDS

This product is to be added to the packer fluid at a point of uniform mixing such as a circulating holding tank and other mixing device locations. Add 0.5 to 7.9 gallons (65 – 1000 ppm active quaternary basis) of this product per 100 barrels of packer fluid. This product is applied to a freshly prepared fluid. Levels for effective control will vary depending on conditions at the site and the severity of the contamination. Seal the treated packer fluid in the wall between the casing and the production tube.

#### HYDROTESTING

Treat water in the hydrotest pipelines or vessels with 65 – 1000 ppm on an active quaternary basis (20.6 to 320 ounces per 1000 gallons of water) of this product, depending on the water quality and length of time the equipment will remain idle.

#### AUXILIARY SERVICE WATER AND WASTE WATER SYSTEM

This product is effective for the control of odor-forming and slime-forming bacterial, fungi and algae in auxiliary service water systems such as fire protection systems and pump or screen bays, water waste systems such as storage tanks, storage piles, associated piping, settling ponds or lagoons, transport spillways or canals and disposed wells.

Add 5 – 180 ppm (active) of this product (1.2 – 42.525 gallons per 3,000 barrels of water) continuously. This product must be added to the system at a point of uniform mixing by slug or intermittent feed or by spraying onto a waste pile. The frequency of feed or spray and the duration of treatment will depend upon the severity of the contamination. Additions to water systems must be made during the pumping operation and as close to the pump as possible to ensure adequate mixing.

#### PULP AND PAPER MILLS

#### SLIMICIDE APPLICATIONS

This product can be used as a slimicide in the manufacture of paper and paperboard that contacts food, depending on the type of stock, quality of raw water, complexity of the system, and degree of contamination. Apply this product intermittently or continuously depending on mill conditions to the paper making system at a point of uniform mixing such as a the beaters, thin or thick stock chests, broke chest pump, save-all tank, process tank or whitewater tank.

**Initial Dose:** When system is noticeably contaminated, add 1.0 to 200 pounds of this product per 100,000 gallons of whitewater to be treated (1.0 to 200 ppm of product) as a continuous or slug dose. Repeat until control is achieved. Heavily fouled systems must be boiled out prior to initial treatment.

**Subsequent Dose:** When microbial control is evident, add 1.0 to 100 pounds of this product per 100,000 gallons of whitewater to be treated (1.0 to 100 ppm of product) as necessary to maintain control.

3. **EQUIPMENT USED:** Use the injection pump to apply the product.  
4. **USE LIMITATIONS:** Dependent upon pH, temperature and salt content, adjust according to conditions found at the site as needed to maintain control.

#### 5. DOSAGE APPLICATIONS:

##### a. SLUG METHOD

**Initial Dose:** When the system is noticeably fouled, apply 19.2 ounces (60 ppm active ingredient) of this product per 1000 gallons of water in the system. Apply for 3 to 8 hours daily until control is achieved.

**Subsequent Dose:** When microbial control is evident, add 9.6 ounces (30 ppm active ingredient) of this product per 1000 gallons of water in the system daily or as needed to maintain control.

##### b. INTERMITTENT DOSAGE

**Initial Dose:** When the system is noticeably fouled, apply 19.2 ounces (60 ppm active ingredient) of this product per 1000 gallons of water in the system. Apply for 3 to 8 hours daily until control is achieved.

**Maintenance Dose:** When control of microbial growth is evident, apply 9.6 gallons (30 ppm active ingredient) of this product per 1000 gallons of water in the system daily or as needed to maintain control.

##### c. CONTINUOUS FEED METHOD

**Initial Dose:** When the system is noticeably fouled, apply 4.8 ounces (15 ppm active ingredient) of this product per 1000 gallons of water in the system.

**Subsequent Dose:** Maintain this treatment by starting a continuous feed of 4.8 ounces (15 ppm active ingredient) of this product per 1000 gallons of water daily or as needed to maintain control.

#### OIL AND GAS PRODUCTION AND TRANSMISSION PIPELINES AND SYSTEMS

For the control of sulfate-reducing bacteria and slime forming bacteria, this product must be added at a point in the production or transmission pipeline via direct injection where uniform. The application must be conducted to ensure maximum distribution of the product through the internal surface of the pipeline by adding an amount of biocide which eventually comes out the other end of the pipeline. Criteria for success of the treatment will be reduction in bacterial count and/or corrosion rates. To facilitate applications, it is desirable to dilute the product with an appropriate solvent immediately before use. The concentration in the solvent must not fall below an active concentration range of 500 to 5,000 ppm based on the volume of water in the pipeline. Injections to the system must be weekly, or as needed to maintain control.

#### GAS STORAGE WELLS AND SYSTEMS

Individual injection wells must be treated with a sufficient quantity of this product to produce concentration of 65-1000 ppm (on an active quaternary basis) when diluted by the water present in the formation. Injection should take place before gas is injected (during the summer). Injections must be repeated yearly or as needed to maintain control.

#### PIPELINE PIGGING AND SCRAPING OPERATIONS

Add this product to a slug of water immediately following the scraper (ideally this water volume can be kept to a minimum and contained between the scraper and the trailing pig). Sufficient product is added to produce an effective concentration of 75 – 500 ppm on an active quaternary basis (2.4 to 16 ounces per 100 gallons of water) depending on the length of the pipeline and the severity of the biofouling.

#### DRILLING, COMPLETION AND WORKOVER FLUIDS SYSTEMS

This product is to be applied to these fluid systems at a point of uniform mixing, such as a circulating holding tank and other mixing device locations.

**CONTROL OF BACTERIAL, FUNGI/MOLD AND ALGAE ON PULP, PAPERBOARD & WET LAP**

This product is used to inhibit bacteria, fungi/mold and algae growth, which causes discoloration, order and degradation in paper, paperboard or wet lap. Application of this product must be made at a point in the system where mixing action is good. Application can also be made at the size press or water box. Apply at a rate of 0.5 to 100 pound of this product per ton (dry basis) of pulp or paperboard produced.

**Dosing Application:** This product may be drip fed continuously from the drum, diluted and showered to the wet sheet or fed by suitable pumps.

For inhibition of bacteria, fungi/mold and algae growth, which causes discoloration, odor and degradation on wet lap or sheet pulp, this product must be applied to the dewatered pulp surface via applicator rolls or showers. Application can also be made at the size press or water box.

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(For Industrial Water Treatment Use, Industrial and/or Commercial Recirculating Cooling Water Towers and Recirculating Cooling Water Systems, Auxiliary water and waste water systems and water cooling systems, once through fresh water cooling systems, sap stains, wood preservatives and all containers less than five gallons.)

### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal. **PESTICIDE STORAGE:** Store in original containers and place in locked storage area. Keep from freezing. **SPILL OR LEAK PROCEDURES:** Small spills may be mopped up or flushed away with water or absorbed on some absorbent material and incinerated. Large spills should be contained, the material then moved into containers and disposed of by approved methods for hazardous wastes. **PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. **Nonrefillable container:** Do not refill or reuse container. Triple rinse as follows: Fill container ¼ full with water and recap. Shake for 10 seconds. Follow Pesticide Disposal instructions for rinsate disposal. Drain for 10 seconds after the flow begins to drip. Repeat procedure two more times. Then offer for recycling or reconditioning. If not available, puncture and dispose of in a sanitary landfill.

(Note to reviewer: The title and first statement of this section must appear on every label, followed by the appropriate Storage and Disposal section.)

### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

#### (FOR USE ON NON-REFILLABLE CONTAINERS WITH INDUSTRIAL NON-PUBLIC USES ONLY)

**PESTICIDE STORAGE:** Open dumping is prohibited. Store only in original container. Do not reuse empty container. If a leaky container must be contained within another, mark the outer container to identify the contents. Store pesticides away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Keep this product under locked storage sufficient to make it inaccessible to children or persons unfamiliar with its proper use.

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

**CONTAINER HANDLING:** Non-refillable container. Do not reuse this container to hold materials other than pesticides or diluted pesticides (rinsate). Triple rinse (or equivalent). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Offer for recycling if available or puncture and dispose in a sanitary landfill, or by other procedures approved by state and local authorities. If rinsate cannot be used, follow pesticide disposal instructions. If not triple rinsed, these containers are acute hazardous wastes and must be disposed in accordance with local, state and federal regulations.

**RESIDUE REMOVAL INSTRUCTIONS:** (For containers less than 5 gallons): Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

**RESIDUE REMOVAL INSTRUCTIONS** (For containers greater than 5 gallons): Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

**BATCH CODE:** (Can be placed on container or label)

#### FOR USE ON REFILLABLE CONTAINERS

(For containers greater than 5 gallons)

**PESTICIDE STORAGE:** Open dumping is prohibited. Store only in original container. If a leaky container must be contained within another, mark the outer container to identify the contents. Store pesticides away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Keep this product under locked storage sufficient to make it inaccessible to children or persons unfamiliar with its proper use.

**CONTAINER HANDLING:** Triple rinse (or equivalent). Refill this container with this product only. Do not reuse this container for any other purpose.

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

**RESIDUE REMOVAL INSTRUCTIONS:** Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container ¼ full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.