



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

February 11, 2019

Mr. Ryan J. Connair
Registration Specialist for,
Mason Chemical Company
2744 E. Kemper Road
Cincinnati, Ohio 45241

Subject: PRIA Label and CSF Amendment – To update the label to include Directions for Use and Marketing Language and Update the Product Chemistry
Product Name: Maquat 4450-10-SW
EPA Registration Number: 10324-88
Application Date: 08/15/2018
Decision Number: 543505

Dear Mr. Connair:

The amended label and CSF(s) referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, are acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Please note that the record for this product currently contains the following CSF(s):

- Basic CSF dated 07/26/2018
- Alternate CSF 2 dated 07/26/2018
- Alternate CSF 3 dated 07/26/2018
- Alternate CSF 4 dated 07/26/2018

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition,

regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Karen M. Leavy by phone at (703)-308-6237, or via email at Leavy.Karen@epa.gov.

Sincerely,



Eric Miederhoff
Product Manager 31
Regulatory Management Branch I
Antimicrobials Division (7510P)
Office of Pesticide Programs

Enclosure

MAQUAT[®] 4450-10-SW

(Note to Reviewer: Marketing claims may be used on the front panel.)

ACTIVE INGREDIENTS:

Didecyl dimethyl ammonium chloride..... 10.00%

OTHER INGREDIENTS: 90.00%

TOTAL: 100.00%

{Weight Approx. 8.26 lbs./gal.}

**KEEP OUT OF REACH OF CHILDREN
DANGER {PELIGRO}**

{See [{left} {back} {side} {right} {insert} {panel} {of label} {below}] for {additional} {precautionary statements}{and}{or}{first aid}}.

(Note to Reviewer: First Aid may only appear on different area of the container label if the Front Panel is less than 12 square inches in total.)

FIRST AID

In case of emergency, call a poison control center or doctor for treatment advice. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

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.

IF ON SKIN: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.

IF SWALLOWED: 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. Call a poison control center or doctor immediately for treatment advice.

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

{For [{chemical} {and} {or} {medical} {and} {or} {environmental}] emergencies, call {insert name and/or number of emergency contact} {hours of operation} {24 hours a day} {7 days a week}}.



(Note to Reviewer: This referral statement may be organized in any order to be grammatically correct.)

{{Consult} {See} {additional} {sheet} {insert} {inside} {outer container} {Product Information} {Bulletin} {for} {other} {directions for use} {and} {information} {claims} {organisms} {applications}}.

Net Contents:

{{Batch} {Lot} No} {Manufacturing Date}:
{Product of USA} {Made in the USA}

ACCEPTED

02/11/2019

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 10324-88

TABLE OF CONTENTS

(Note to Reviewer: The Table of Contents will not be on any label. This is for our customer's reference only.)

MARKETING CLAIMS.....	2
WATER TREATMENT	4
OIL FIELD, GAS PRODUCTION AND TRANSMISSION PIPELINE AND SYSTEMS	5
ALGAE TREATMENT	7
STAIN REMOVAL	Error! Bookmark not defined.
PULP AND PAPER MILLS	Error! Bookmark not defined.
WOOD PRESERVATIVES	Error! Bookmark not defined.
STORAGE AND DISPOSAL	9
PRECAUTIONARY STATEMENTS	10
ENVIRONMENTAL HAZARDS	10

MARKETING CLAIMS

(Note to Reviewer: Marketing text is considered optional. Commas and the words "and" "or" can be added to phrases to make text grammatically correct.)

{LOCATIONS/SURFACES}

(Note to Reviewer: The locations/surfaces have been grouped for space purposes only; they can be used individually or grouped together in any order however at least **one** location/surface must appear on the label. In the case where one or more location/surface is chosen, an "and" "&" "or" may be used to link locations/surfaces.)

This product is for use in (insert location)

For use {in} {on} (insert location/surface).

{LOCATIONS}

- Auxiliary water {and waste water} systems
- Commercial recirculating cooling water towers
- Drilling, completion and workover fluids systems
- Gas production and transmission pipelines and systems
- Gas storage wells and systems
- Hydrotesting facilities
- Industrial {and/or} {commercial} recirculating cooling towers.
- Oil field water flood/salt water disposal systems {and fracturing fluid systems}
- Oil field injection and waste water
- Once through water cooling systems
- Once through freshwater systems
- Packer fluid systems
- Pipeline pigging and scraping operations
- Recirculating water systems
- Retort water systems
- Waste water systems
- Water cooling systems

- Fountains
- Ponds
- Swimming pools
- Whirlpools, spas, hot tubs

WATER TREATMENT MARKETING CLAIMS

(Note to Reviewer: The following marketing claims may be used with the prefix “This product” or “This product is {a} {an}”.)

- Algacide
- Aids in the control of bacterial, fungal and algal slimes in evaporative condensers, heat exchange water systems, industrial and commercial cooling towers, air washers, warmers, and industrial water scrubbing systems.
- Aids in the control of bacterial, fungal and algal slimes in evaporative condensers, heat exchange water systems, industrial and commercial cooling towers, and influent systems such as flow through filters and lagoons.
- Aids in the control of bacterial, fungal and algal slimes in retorts water systems.
- A water treatment microbiocide for industrial and/or commercial recirculating cooling water towers, and oil field flood/salt water disposal systems and fracturing fluids.
- A water treatment microbiocide for use in retort water 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 systems, industrial recirculating water handling systems.
- A microbiocide for use in controlling slime forming bacteria, sulfate-reducing bacteria (SRB) and fungi (yeast and molds) and algae in air washers and industrial scrubbing systems, 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.
- Effective against the growth of algae.
- For control of algae, algal, fungal and bacterial slimes in recirculating water systems, auxiliary water and waste water systems and water cooling systems, oil field water flood systems/salt water disposal systems.
- Has been designed specifically for control of sulfate-reducing bacteria that contribute to souring, the production of sulfide, and abiotic corrosion in water cooling systems, oil field systems, gas production and transmission pipelines and systems.
- Helps inhibit the growth of unsightly algae.
- Is a water treatment microbiocide that will control algae and bacterial slimes found in recirculating cooling tower waters.
- Kills and prevents algae.
- The residual effectiveness of this algacide tends to stabilize the total chemical treatment 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, waste water systems such as storage tanks, storage piles, associated piping, setting ponds or lagoons, transport spillways or canals and disposal wells.
- To control algae and bacterial slimes, use this water treatment microbiocide as directed.

SWIMMING POOL TREATMENT MARKETING CLAIMS

(Note to Reviewer: The following marketing claims may be used with the prefix “This product” or “This product is {a} {an}”.)

- Algacide
- Compatible with most {swimming pool} chemicals {used in pool water} {and} {when used as directed,} is not harmful to the metal, paint, plastic or non-porous glazed tile {surfaces} {of the swimming pool}.
- Effective against the growth of algae.
- Especially effective against growth of algae and being non-volatile, aids in maintaining pool water clarity and sparkle.
- For control of algae {and algae slime} growth in swimming pools, {outside} spas/whirlpools/hot tubs {baths}, {containerized} {decorative} fountains.
- For control of algae growth in swimming pools, {outside} spas/whirlpools/hot tubs {baths}, {containerized} {decorative} fountains.
- Helps inhibit the growth of unsightly algae.
- Improves filter operation and reduces the need for other chemicals.
- Keeps pool water sparkling, clear of visible green and blue-green algae, {slime} and green brown colors.
- Kills and prevents algae.
- The residual effectiveness of this algacide tends to stabilize the total chemical treatment system.
- This product supports your overall pool chemical maintenance program, offering residual effectiveness that protects your pool against algae formation while keeping your pool water sparkling clear.
- {This product is} formulated to complement swimming pool water being treated with normal chlorine systems.
- This product is effective in controlling the growth of the following types of algae: *Chlorella pyrenoidosa* (green algae), *Lyngbya versicolor*, *Phormidium inundatum* (blue-green algae) and *Phormidium retzii*.
- This product protects the unattended pool when you're away (refer to Vacation Treatment section in the directions for use).
- To control algae {and bacterial slimes}, use this water treatment microbiocide as directed.
- When used as directed will help improve the appearance and cleanliness of the [{swimming pool water} {and} {fountain water}].

GENERAL MARKETING CLAIMS

(Note to Reviewer: The following marketing claims may be used with the prefix "This product" or "This product is {a} {an}").

- Efficient and non-staining when used as directed.
- Is non-staining.
- No Bleach
- Non-Acidic
- Non-Caustic
- Will not damage tile, concrete, metal or plastics.

PACKAGING CLAIMS

- Concentrate{d}.
- 10% Concentration
- Easy to use.
- Economy size. *(Note to Reviewer: To be used on applicable container)*
- Is an economical concentrate.
- 1 gal. treats 50,000 gal. *(For swimming pool applications.)*
- Makes *(insert value)* [{Gal.} {Quarts} {Containers}]
- This [{container} {bottle}] is made of {at least} (x) % post-consumer recycled plastic.

(Note to Reviewer (General Considerations): Numbered instructions will be used if label space permits, otherwise may appear in paragraph format. Unit abbreviations can be spelled out. When choosing optional text, appropriate punctuation can be inserted or deleted. Equivalent use dilution ratios may be substituted within the directions. Equivalent use dilution ratios may be substituted within the directions.)

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.}

WATER TREATMENT

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

(Note to Reviewer: The following sentence must be used with the air washer use listed in the directions:)

For use only in industrial air washers and air washer systems which have mist-eliminating components.

{AIR WASHERS,} INDUSTRIAL {{AND/OR} COMMERCIAL} RECIRCULATING COOLING WATER TOWERS, RETORT WATER SYSTEMS, {EVAPORATIVE CONDENSERS,} {HEAT {{EXCHANGE} {TRANSFER}} {WATER} SYSTEMS,} {INFLUENT SYSTEMS}: For best results, clean heavily contaminated systems before treatment with this product. If soap or anionic detergent is used, rinse thoroughly before charging with this algacide. {Cooling tower waters that are inherently low in algae growth and bacteria count may be adequately controlled by the lower range of these dosages.} Repeat every seven days or increase frequency if needed. Should slime develop again, repeat initial dosage.

1. **Dosing Location:** This product is to be applied at a point in the system where it will be uniformly mixed, such as the basin area, the sump, or another reservoir or collecting area.
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. **INTERMITTENT OR SLUG METHOD**

Initial Dose: When the system is noticeably fouled, apply 25.6 - 51.2 oz. of this product per 1,000 gal. of water {(20 - 40 ppm active)} in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 6.4 - 19.2 oz. of this product per 1,000 gal. of water {(5 - 15 ppm active)} in the system weekly or as needed to maintain control.
 - b. **MODIFIED INTERMITTENT METHOD**

Initial Dose: When the system is noticeably fouled, apply 25.6 - 51.2 oz. of this product per 1,000 gal. of water {(20 - 40 ppm active)} 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 6.4 - 19.2 oz. of this product per 1,000 gal. of water {(5-15 ppm active)} in the system. Apply half of this subsequent dose when half of the water in the system has been lost by blowdown.
 - c. **CONTINUOUS FEED METHOD**

Initial Dose: When the system is noticeably fouled, apply 25.6 - 51.2 oz. of this product per 1,000 gal. of water {(20 - 40 ppm active)} in the system.

Subsequent Dose: Maintain this treatment by starting a continuous feed of 6.4 - 19.2 oz. of this product per 1,000 gal. of water {(5- 15 ppm active)} lost by blowdown.

ONCE THROUGH FRESH {AND SEA} WATER 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.

{For best results, slug feed. The frequency of addition of microbiocide needed depends on many factors. To optimize your use of water treatment microbiocide, follow this procedure.}

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 Application:**
 - a. Wear safety glasses, chemical-resistant gloves and impervious apron.
 - b. To reduce foaming, mix 10 parts of water to 1 part of this product.
 - c. {{Use} {Add}} 0.75 - 7.5 oz. of this product per 1,000 gal. of water {{(0.6 - 6 ppm active)}}.
 - d. Do not discharge without performing proper deactivation.
 - e. Treatment time cannot exceed 120 hours/application nor exceed 4 times per year.
 - f. Avoid oxidizers and reducing agents. Product is cationic and must not be mixed with soap or anionic surfactants.

(OR)

(Note to Reviewer: Alternate Method of Application language can be used in place of Item #3 directly above.)

3. **Method Of Application:**

INTERMITTENT OR SLUG METHOD

Initial Dose: When the system is noticeably fouled, apply 0.75 - 7.5 oz. of this product per 1,000 gal. of water {{(0.6 - 6 ppm active)}} based on system flow rates. The minimum treatment is 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 0.38 - 3.8 oz. of this product per 1,000 gal. of water {{(0.3 - 3 ppm active)}} based upon system flow rates on an as needed basis to maintain control. Frequency of feed must be tied to an in-plant monitoring program for macro cowlng 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.

(Note to Reviewer: Deactivation instructions must be used with the above Once Through directions for use.)

DEACTIVATION: Use bentonite clay at the minimum ratio of 5 ppm clay to 1 ppm product. This product must be deactivated prior to discharge of the NPDES outfall. Do not apply this product more than 4 times a year.

AUXILIARY SYSTEMS AND SERVICE WATER: Add 0.5 - 18.0 gal. of this product per 10,000 gal. of water {{(5 - 180 ppm active)}} in the system 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.

OIL FIELD, GAS PRODUCTION AND TRANSMISSION PIPELINE AND SYSTEMS

{{OIL FIELD} {GAS PRODUCTION} {TRANSMISSION PIPELINE} {AND} {SYSTEMS}}: 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, ballasts, storage and mixing tanks, screens, surface injection equipment, production equipment {{such as injection and production piping casting, 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 must be added to the system by slug, continuous or on an intermittent basis, depending on the degree of system fouling.

OIL FIELD WATER FLOOD OR SALT WATER DISPOSAL SYSTEMS AND FRACTURING FLUIDS: This product must be added to the water flood or salt water disposal system at a point of uniform mixing.

1. **Continuous Use:** Add 0.5 - 2 gal. of this product per 10,000 gal. of water {{(5 - 20 ppm active)}} to control slime forming and sulfate reducing bacteria. Levels for effective control will vary depending on conditions at the site.
2. **Intermittent Use:** Add at a rate of 0.5 - 2 gal. of this product per 10,000 gal. of water {{(5 - 20 ppm active)}} for 4 - 8 hrs. per day, one to four times a week as needed to maintain control.
3. **Treatment of flow back return water** {{(Post Hydraulic Fracturing)}}: Dose at a rate of 0.5 - 2 gal. of this product per 10,000 gal. of water {{(5 - 20 ppm active)}} for 4 - 8 hours per day, one to four times a week as needed to maintain control.

OIL FIELD 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 makeup water to the holding tank.

Method of Application:

1. **Continuous Injection:** Add at a rate of 38.4 oz. of this product per 1,000 gal. of water {(30 ppm)} when system is noticeably fouled. When microbial control is evident, add this product at 19.2 oz. of this product per 1,000 gal. of water {(15 ppm)} to maintain control.
2. **Batch Treatment:** Add at a rate of 1.8 gal. of this product per 1,000 gal. of water {(180 ppm)} 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 0.9 gal. of this product per 1,000 gal. of water {(90 ppm)} over a period of 4-6 hours one or more time per week.

(OR)

OIL FIELD INJECTION AND WASTE WATER

1. **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.
2. **Dosing Conditions:** This product is to be applied when the system is in jeopardy of being affected. Badly fouled systems must be cleaned before treatment is begun.
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] {Intermittent Dosage}]**

Initial Dose: When the system is noticeably fouled, apply 0.6 gal. (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 0.3 gal. (30 ppm active ingredient) of this product per 1000 gallons of water in the system daily or as needed to maintain control.

b. **Continuous Feed Method**

Initial Dose: When the system is noticeably fouled, apply 19.2 oz. (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 19.2 oz. (15 ppm active ingredient) of this product per 1000 gallons of water daily or as needed to maintain control.

[[FRACTURING] {FRAC}] FLUIDS: Add this product to the frac water storage tanks or directly into the well head injection pipeline as the water is being pumped down-hole. Dose Range: Add 0.5 - 2 gal. of this product per 10,000 gal. of water {(5 - 20 ppm active)} to control slime forming and sulfate reducing bacteria. Levels for effective control will vary depending on conditions at the site.

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 to a gas production or transmission pipeline via direct injection at a point where uniform and maximum distribution will occur. 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 application, 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 - 1000 ppm active 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: To treat individual injection wells add 0.65 - 10 gal. of this product per 1,000 gal. {(65 - 1000 ppm active)} to produce an effective concentration. Update treatment rate as needed. This product must be diluted by the water present in the formation. Injection takes place before gas is injected and may be repeated yearly or as needed to maintain control.

PIPELINE PIGGING AND SCRAPING OPERATIONS: Add this product to slug water immediately following the scraper {(keep the water volume to a minimum and contained between the scraper and the {[following] {trailing}} pig)}. Add an effective concentration of 9.6 - 64 oz. of product per 100 gal. of water {(75 - 500 ppm active)} depending on the length of the pipeline and the severity of the biofouling.

DRILLING, COMPLETION AND WORKOVER FLUIDS SYSTEMS: This product is to be added to these fluid systems at a point of uniform mixing, such as a circulating, holding or mud tank. Levels for effective control will vary depending on conditions at the site and the severity of the contamination.

1. **Initial treatment:** Add 0.65 - 10 gal. of this product per 1,000 gal. {(65 - 1000 ppm active)} to a freshly prepared fluid.
2. **Maintenance dosage:** Add 0.65 - 10 gal. of this product per 1,000 gal. {(65 - 1000 ppm active)} to a freshly prepared fluid.

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 0.65 - 10 gal. of this product per 1,000 gal. of packer fluid {(65 - 1000 ppm active)} to a freshly

prepared fluid. Levels for effective control vary depending on conditions at the site and the severity of contamination. Seal the treated packer fluid in the wall between the casing and the production tube.

HYDROTESTING: Treat water used to hydrotest pipelines or vessels by adding 0.65 - 10 gal. of this product per 1,000 gal. of water {(65 - 1000 ppm active)} depending on the water quality and length of time the equipment will remain idle.

ALGAE TREATMENT

SWIMMING POOLS: This product is compatible with most chemicals normally used in swimming pool maintenance; however, in its concentrated form, this chemical must not come in contact with high concentrations of chlorine or any other oxidizer. **DO NOT MIX THIS PRODUCT AND CHLORINE OR ANY OTHER OXIDIZER TOGETHER** before adding to the pool. These chemicals must be handled separately.

This product was formulated to complement most swimming pool sanitizers. This product is not a stand-alone product; it must be used with either halogen based or non-halogen based pool sanitizers. When using other products as outlined in the directions for this product, always follows directions on those products.

This product requires no special equipment for treating swimming pool water. The correct use dilution may be added directly to the pool in any spot or added to the water-circulation equipment. This product works best when added directly to the pool water by pouring around entire outside perimeter of pool.

Do not allow swimming in pool for at least 15 minutes after this product has been applied.

Ensure all pool equipment is working properly. Backwash the filter system following manufacturer's directions. Adjust pH between 7.2 - 7.6. Adjust chlorine residual to 1 - 3 ppm. In a chlorine treated pool, add stabilizer to establish a minimum level of 40 - 50 ppm to reduce the degradative effects of sunlight upon the chlorine residual. Check for metals and if present add stain and scale inhibitor to prevent staining of pool surface due to metals. Check chlorine residual and adjust to 1 - 3 ppm.

TO DETERMINE POOL CAPACITY:

Rectangular Pools: Length (times) width (times) average depth (in feet) (times) 7.5 (equals) gal.

Round and Oval Pools: Long diameter (times) short diameter (times) average depth (in feet) (times) 5.9 (equals) gal.

(Note to Reviewer: Appropriate dilution rates may be substituted as long as they are equivalent dilution rates.)

{SWIMMING POOL TREATMENT DILUTION TABLE: (Note to Reviewer: This DILUTION TABLE is optional.)}

Swimming Pool Capacity gal. of Water	Initial Treatment	Maintenance Dose Booster Dose
5,000	12.8 oz.	3.2 oz.
10,000	25.6 oz.	6.4 oz.
15,000	38.4 oz.	9.6 oz.
20,000	51.2 oz.	12.8 oz.
25,000	64.0 oz.	16.0 oz.
30,000	76.8 oz.	19.2 oz.
40,000	102.4 oz.	25.6 oz.
50,000	128.0 oz.	32.0 oz.

INITIAL APPLICATION FOR SWIMMING POOLS {{USING} {HALOGENATED} {NON-HALOGENATED}} {SANITIZERS}}:

1. Backwash the filter thoroughly.
2. Vacuum algae debris and thoroughly brush pool.
3. Add 1 gal. of this product per 50,000 gal. of water {(25.6 oz. this product per 10,000 gal. of water)} {(or equivalent use dilution)}.
4. Vacuum pool after 24 hours to remove dead algae.
5. If algae is still visible repeat dose {(steps 3 & 4)} as necessary until pool is free of visible algae.
6. Once algae are under control, clean filter and return to normal operation.

MAINTENANCE APPLICATION: Add 32 oz. of this product per 50,000 gal. of water {(or equivalent use dilution)} every 3 - 5 days. If high temperatures prevail or pool has unusually heavy use, add maintenance dose more frequently.

{For persistent algae, {or slime producing organisms} add 12.8 oz. of this product per 5,000 gal. of water {(or equivalent use dilution)} in to the skimmer with the filter pump running. After one minute shut off pump and allow the system to remain off overnight. The following day, restart the filter pump and add 12.8 oz. of this product per 5,000 gal. of water {(or equivalent use dilution)} to the pool. Run filter continuously for 24 - 48 hours brushing the sides and bottom of the pool frequently.}

BOOSTER APPLICATION: Add 32 oz. of this product per 50,000 gal. of water {(or equivalent use dilution)} after a heavy or prolonged rainfall or when there is a heavy bathing load.

The directions should be followed even when the pool is not in use. If algae growth is noticeable, apply initial dose. {For persistent algae, {or slime producing organisms} add 12.8 oz. of this product per 5,000 gal. of water {(or equivalent use dilution)} into the skimmer with the filter pump running. After one minute shut off pump and allow the system to remain off overnight. The following day, restart the filter pump and add 12.8 oz. of this product per 5,000 gal. of water {(or equivalent use dilution)} to the pool. Run filter continuously for 24 - 48 hours brushing the sides and bottom of the pool frequently.}

VACATION TREATMENT: When you are going to be away for one week or more, add 25.6 oz. of this product per 10,000 gal. of water {(or equivalent use dilution)} for every week unattended. Pour product around the edges of the shallow end of the pool, if shock is also being applied in the deep end of pool.

WINTERIZING TREATMENT : When swimming pool season is over, add 1 gal. of this product per 50,000 gal. of water {(or equivalent use dilution)} left in pool. This dose helps provide a measure of control of algae growth during the winter months.

{Clean pool water line, shut down filter, drain pump and winterize as per manufacturer's instructions. Cover pool with solid cover, if possible. Pools without a solid cover may need a second treatment later in the non-swimming season.}

FOR ALGAE TREATMENT OF [{SPAS} {WHIRPOOLS} {HOT {TUBS} {BATHS}}]:

Initial Dose: Add 12.8 oz. of this product per 5,000 gal. of pool water {(or equivalent use dilution)}. Initial dose is used upon filling of [{spa} {whirlpool} {hot {tub} {bath}}].

Maintenance Dose: Add 3.2 oz. of this product per 5,000 gal. of water {(or equivalent use dilution)}. Maintenance dose should be added at 3 - 5 day intervals. If high temperatures prevail or [{spa} {whirlpool} {hot {tub} {bath}}] has unusually heavy use, add maintenance dose more frequently. Drain and clean spa/whirlpool/hot tub bath at least once a month or as needed depending on bather load.

BIRD BATHS: DO NOT use when fish are present. Clean to remove algae growth prior to filling birdbath and spray the exposed surface with a solution of 1 oz. of this product per gallon of water {(or equivalent use dilution)}. Allow to air dry and brush off dead algae.

WALKWAYS: This product will inhibit the growth of algae on {sealed hard, non-porous} walkways. For heavy infestations, spray or swab surface with a solution of 1 oz. of this product per gal. of water {(or equivalent use dilution)}. Let stand for an hour or more then brush and wash away dead algae. Soak area again with the solution. Do not rinse. Allow to dry on the surface and repeat application when algae growth returns. For sprayer applications, use as a coarse spray only. Allow surfaces to remain wet for 10 minutes then air dry. Prepare a fresh solution daily or when visibly dirty.

(Note to Reviewer: The description of "Containerized" must be used for products registered/sold into CA.)

This product is not to be used in open water ways connected to larger watersheds or in waters that service natural habitats for aquatic and amphibious organisms. Do not use when fish or another wildlife (for example, amphibians) are present. This product is toxic to fish. Do not use this product when fish are present.

{FOUNTAIN AND POOL TREATMENT DILUTION TABLE: (Note to Reviewer: This DILUTION TABLE is optional.)}

Fountain or Pool Capacity gal. of Water	Initial Treatment	Maintenance Dose Booster Dose
195	0.5 oz.	0.125 oz.
390	1 oz.	0.25 oz.
781	2 oz.	0.5 oz.
1,562	4 oz.	1 oz.
3,125	8 oz.	2 oz.
6,250	16 oz.	4 oz.
12,500	32 oz.	8 oz.
25,000	64 oz.	16 oz.

FOR ALGAE TREATMENT OF {CONTAINERIZED} FOUNTAINS, WATER DISPLAYS, DECORATIVE AND SWIMMING POOLS/PONDS AND STANDING WATER {in such places as puddles at golf courses, recreational parks, amusement parks, universities and cemeteries}: Do NOT use when fish or other wildlife are present. This product is not to be used in open water ways connected to larger watersheds or in waters that serve as natural habitats for aquatic or amphibious organisms. {Spray from fountains treated with this product will not harm {poolside} {nearby} plantings.}

Remove floating type algae by raking, dragging with cable or chain, skimming, or any other suitable method. {It is more economical to remove floating type algae before the water is treated.}

{Treat water by "dribbling" this product using 1 part to 4 parts water {(or equivalent use dilution)} around the edges where visible algae growth is evident.} {Apply 32 oz. of this product per 12,500 gal. of water {(or equivalent use dilution)}.} Apply prepared solution liberally along the windward side to float across the water and along the leeward side where contamination gathers. Where a spray rig is available, it may be used to apply the prepared solution instead of the hand "dribbling" method. Each week repeat maintenance dosage or add this product using a test kit to maintain the proper concentration.

Initial Dosage: Add 32 oz. of this product per 12,500 gal. of water {(or equivalent use dilution)} at any point that is convenient, such as the bowl, pool, or sump.

Weekly Maintenance: Add 8 oz. of this product per 12,500 gal. of water {(or equivalent use dilution)} every 3 - 5 days or as to maintain 0.5 ppm active. Each month drain and clean bowl. Refill with fresh water and repeat initial treatment. Draining removes airborne dirt, dust, contamination and alkali build-up.



STORAGE AND DISPOSAL

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

{PESTICIDE} STORAGE: Store only in original container. 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:

(Note to Reviewer: One or more of the following paragraphs for Container Handling will be selected, depending on packaging use/type.)

{For non-refillable containers equal to or less than 5 gal.}

Non-Refillable Container. Do not reuse or refill this container. Triple rinse container {(or equivalent)} promptly after emptying. Triple rinse as follows: Fill the container $\frac{1}{4}$ full with water and recap. Shake for 10 seconds. Drain for 10 seconds after the flow begins to drip. Follow Pesticide Disposal instructions for rinsate disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

{For non-refillable containers greater than 5 gal.}

Non-Refillable Container. Do not reuse or refill this container. Triple rinse container {(or equivalent)} promptly after emptying. Triple rinse as follows: Fill the container $\frac{1}{4}$ 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 back and forth several times. Turn the container over onto its other end and tip back and forth several times. Follow Pesticide Disposal instructions for rinsate disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

{Refillable containers}

Refillable Container. Refill this container with this product only. Do not reuse this container for any other purpose. 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 container about 10 percent 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.



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

DANGER. Corrosive. Causes irreversible eye damage and skin burns. May be fatal if inhaled. Harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin or on clothing. Do not breathe spray mist. Wear goggles or face shield, chemical-resistant gloves and protective clothing when handling. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash before reuse.

ENVIRONMENTAL HAZARDS

(If container is equal to or greater than 5 gal., the following statement must appear on the label.)

This product 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 gal., use the following as an alternate to the above statement.)

This product is toxic to fish, aquatic invertebrates, oysters and shrimp.



{SPANISH ADVISORY STATEMENTS}

(Note to Reviewer: This statement is optional except when used on labels with agricultural uses.)

{SI USTED NO ENTIENDE LA ETIQUETA, BUSQUE A ALGUIEN PARA QUE SE LA EXPLIQUE A USTED EN DETALLE.
IF YOU DO NOT UNDERSTAND THE LABEL, FIND SOMEONE TO EXPLAIN IT TO YOU IN DETAIL.}



GRAPHICS AND ICONS

(Note to Reviewer: These are representative icons for use sites/application methods listed in the location/surfaces section of this label that may appear on the label with the appropriate directions for use, PPE or package type.)

{Baby Drowning in Bucket
Warning Graphic}

{Made in USA Logo/Flag}

{Recycling Logo}

{Mixing Chemical Warning
Graphic}