



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

June 20, 2016

Lisa M. Amadio
Mason Chemical Company
723 W. Algonquin Road
Arlington Heights, IL 60005

Subject: PRIA Label and CSF Amendment – Submission of Updating label format and language and updating CSF
Product Name: Maquat LC-12S-50% EU
EPA Registration Number: 10324-21
Application Date: April 25, 2016
Decision Number: 516942

Dear Ms. Amadio:

The amended label and CSF 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 04/25/2016

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 Emilia Oiguenblik by phone at 703 347 0199, or via email at Oiguenblik.emilia@epa.gov or Eric Miederhoff by phone at 703 347 8028, or via email at Miederhoff.eric@epa.gov.

Sincerely,



Eric Miederhoff
Product Manager 31
Regulatory Management Branch I
Antimicrobials Division (7510P)
Office of Pesticide Programs
Date: June 20, 2016

Enclosure: Stamped label

MAQUAT[®] LC12S-50-EU

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

ACTIVE INGREDIENT:

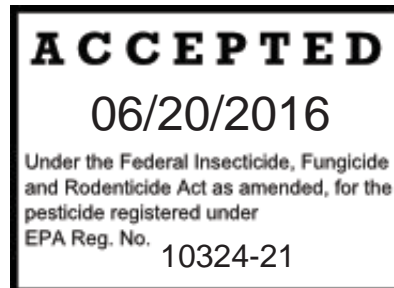
Alkyl (67%C₁₂, 25%C₁₄, 7%C₁₆, 1%C₁₈)

Dimethyl Benzyl Ammonium Chloride 50.0%

OTHER INGREDIENTS: 50.0%

TOTAL: 100.0%

{Weight: Approx. 8.2 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 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.

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.

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}}.



{See {additional} {sheet} {insert} for {other} {directions for use} {information} {claims} {organisms}}.

Net Contents:

{{Batch} {Lot} No} {Manufacturing Date}:

{Product of USA} {Made in the USA}



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

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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 systems
- Commercial recirculating cooling water towers
- Drilling, completion and workover fluids 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}
- Once through fresh 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

- Lumber yards
- Paper manufacturing
- Pulp and paper mills {water process systems}
- Wood processing facilities

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

{SURFACES}

- Paper and paperboard
- Processed wood
- Construction products such as lumber, construction timbers, millwork, posts, decking, wood applications, wood shingles, concrete, sheetrock, wallboard, block and steel

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}").

- Algaecide
- 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.
- A water treatment microbiocide for industrial and/or commercial recirculating cooling water towers, retort water systems and flood/salt water disposal systems and fracturing fluids.
- 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 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, and in paper mills and paper mill process water systems and water based coatings for paper and paperboard.
- Controls algae and algal slime growth in industrial and/or commercial recirculating cooling water towers and once through freshwater cooling systems.
- 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/salt water disposal systems
- For control of mollusks in once through freshwater cooling 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, paper mill process water systems, oil field systems, gas production and transmission pipelines and systems.
- Helps inhibit the growth of unsightly algae.
- Is a microbiocide that helps clean and loosen slime debris from cooling and flooding system surfaces.
- 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 algaecide 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, water waste systems such as storage tanks, storage piles, associated piping, setting ponds or lagoons, transport spillways or canals and disposed 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}").

- Algaecide
- 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.
- Helps inhibit the growth of unsightly algae.
- 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 algaecide tends to stabilize the total chemical treatment system.
- {This product is} formulated to complement swimming pool water being treated with normal chlorine systems.
- 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}].

PULP AND PAPER MILL MARKETING CLAIMS

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

- Is used to inhibit fungal growth, which causes discoloration, odor and degradation of paper, paperboard or wet lap.
- Can be used as a slimicide in the manufacture of paper and paperboard, depending on the type of stock, quality of raw water, complexity of the system, and degree of contamination.
- For control of bacterial and fungal slimes in pulp mills, paper mills and paper manufacturing.
- This product can be used as a slimicide in the manufacture of paper and paperboard, depending on the type of stock, quality of raw water, complexity of the system, and degree of contamination. Do not use to treat paper or paperboard which will contact food.
- This product is used to inhibit fungal growth which causes discoloration, odor and degradation of paper, paperboard or wet lap.

WOOD TREATMENT MARKETING CLAIMS

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

- Is a concentrated biocide for use as a wood preservative.
- Can treat millwork, construction timbers, decking, wood applications, wood shingles, posts and other articles to be used in above ground applications.
- For the control of mold, mildew and fungi in sap stains and wood preservatives.
- For the control of mold, mildew and fungus on green or freshly cut lumber.
- This product will protect treated wood articles from the destructive attack of fungi, mold or mildew.
- This product is used to control mold, mildew and fungus on green or freshly cut lumber.

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.
- Will not damage tile, concrete, metal or plastics.

PACKAGING CLAIMS

- 50% Concentration
- Concentrate{d}.
- Easy to use.
- Economy size. **(Note to Reviewer:** To be used on applicable container)
- Is an economical concentrate.
- Is efficient and stable in use dilution.
- One-half 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.

DIRECTIONS FOR USE

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

(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.)

WATER TREATMENT

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

INDUSTRIAL {{AND/OR} COMMERCIAL} RECIRCULATING COOLING WATER TOWERS, RETORT WATER SYSTEMS, EVAPORATIVE CONDENSERS, HEAT EXCHANGE WATER SYSTEMS, INFLUENT SYSTEMS, BREWERY PASTURIZERS: 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. 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.

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. **INTERMITTENT OR SLUG METHOD**

Initial Dose: When the system is noticeably fouled, apply 5.25 – 10.25 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 1.33 – 3.85 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 5.25 – 10.25 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 1.33 – 3.85 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 5.25 oz. of this product {{20 ppm active}} per 1,000 gal. of water in the system.
Subsequent Dose: Maintain this treatment by starting a continuous feed of 1.33 oz. of this product {{5 ppm active}} per 1,000 gal. of water 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, rubber gloves and impervious apron.
 - b. To reduce foaming, mix 2 parts of water to 1 part of this product.
 - c. {{Use} {Add}} 0.256 – 2.56 oz. of this product {{1 – 10 ppm active}} per 1,000 gal. of water.
 - 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 0.154 – 1.54 oz. of this product {(0.6 – 6 ppm active)} per 1,000 gal. of water 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 0.076 – 0.76 oz. of this product {(0.3 – 3 ppm active)} per 1,000 gal. of water 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 clogging 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.

BACTERIAL, FUNGAL AND ALGAE {SLIME} CONTROL IN RECIRCULATING AUXILIARY AND WASTE WATER SYSTEMS, AND {BREWERY} PASTEURIZERS:

Initial dose: Add this product at an initial dosage of 0.2 – 0.4 gal. of product per 5,000 gal. of system water {(20 – 40 ppm active)}. Repeat until the desired level of control is achieved. Heavily contaminated systems must be pre-cleaned.

Subsequent dose: Once control is achieved, add maintenance dosages of 0.05 – 0.2 gal. of product per 5,000 gal. of system water {(5 – 20 ppm active)} weekly or as needed to maintain control. Apply this product to a point in the system where it will be uniformly mixed and distributed, such as the tower sump.

AUXILIARY SERVICE WATER AND WASTE WATER SYSTEMS: Add 0.95 – 34 gal. per 3,000 barrels of water {(5 – 180 ppm active)} of this product 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

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 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 must be added to the system by slug, continuous or on an intermittent basis, depending on the degree of system [{fouling} {found}].

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

1. **Intermittent Use:** Add at a rate of 120.75 – 483.75 oz. of this product {(5-20 ppm active)} per 3,000 barrels of water for 4 to 8 hours per day, one to four times a week as needed to maintain control.
2. **Continuous Use:** Add 120.75 – 241.75 oz. of this product {(5-10 ppm active)} per 3,000 barrels of water to control slime forming and sulfate reducing bacteria. Levels for effective control will vary depending on conditions at the site.
3. **Treatment of flow back return water** {(Post Hydraulic Fracturing): Dose at a rate of 120.75 – 483.75 oz. of this product {(5 – 20 ppm active)} per 3,000 barrels of water for 4 – 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 makeup water to the holding tank.

Method of Application:

1. **Continuous Injection:** Add this product at 7.5 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 3.75 fl. oz. of this product per 1,000 gal. of water {(15 ppm)} to maintain control.
2. **Batch Treatment:** Add this product at 46.25 oz. 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 23 oz. of this product per 1,000 gal. of water {(90 ppm)} over a period of 4-6 hours one or more time per week.

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 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: To treat individual injection wells add 0.4 - 6.3 gal. of this per product per 100 barrels {(65 – 1,000 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 1.9 – 12.9 oz. of product per 100 gal. of water {to produce 75 – 500 ppm active solution} 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 0.4 – 6.3 gal. of this product per 100 barrels {(65 – 1,000 ppm active)} to a freshly prepared fluid.
2. **Maintenance dosage:** Add 0.4 – 6.3 gal. of this product per 100 barrels {(65 – 1,000 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 0.4 – 6.3 gal. of this product {(65 – 1000 ppm active)} per 100 barrels of packer fluid 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 0.13 – 2.0 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. 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 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.

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

1. Backwash the filter thoroughly.
2. Vacuum algae debris to waste and thoroughly brush pool.
3. Add 26.0 oz. of this product per 50,000 gal. of water {(5.2 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 6.5 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.

BOOSTER APPLICATION: Add 6.5 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 above directions should be followed even when the pool is not in use. If algae growth is noticeable, apply initial dose.

VACATION TREATMENT: When you are going to be away for one week or more, add 4.8 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 26.0 oz. of this product per 16,000 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.

For persistent algae or slime producing organisms add 6.5 oz. of this product 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 6.5 oz. of this product to the pool. Run filter continuously for 24 – 48 hours brushing the sides and bottom of the pool frequently.

(Usage chart for one-gal. containers)

Swimming Pool Capacity Gal. of Water	Initial Treatment	Maintenance Dose Booster Dose
5,000	2.6 oz.	0.65 oz.
10,000	5.2 oz.	1.3 oz.
20,000	10.4 oz.	2.6 oz.
25,000	13.0 oz.	3.25 oz.
30,000	15.6 oz.	3.9 oz.
40,000	20.8 oz.	5.2 oz.
50,000	26.0 oz.	6.5 oz.

(OR)

(Usage chart for one-quart containers)

Swimming Pool Capacity Gal. of Water	Initial Treatment	Maintenance Dose Booster Dose
5,000	2.6 oz.	0.65 oz.
10,000	5.2 oz.	1.3 oz.

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

Initial Dose: Add 2.6 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 0.65 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: Clean to remove algae growth prior to filling birdbath and spray the exposed surface with a solution of 0.2 oz. of this product per gal. 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 hard, non-porous walkways. For heavy infestations, spray or swab surface with a solution of 0.2 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 then air dry.

FOR ALGAE TREATMENT OF 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 are present. 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 51.2 oz. of this product per 1,000 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.

Note: Algae does not usually grow in water that is 5 feet or more in depth. However, floating type algae may grow on pond weeds that grow on the surface of the water.

WEEKLY MAINTENANCE		
This product	Per	Unit water for 100 ppm active
0.026 oz.		1 gal.
0.26 oz.		10 gal.
2.56 oz.		100 gal.
25.6 oz.		1,000 gal.

INITIAL DOSAGE		
This product	Per	Unit water for 100 ppm active
0.05 oz.		1 gal.
0.51 oz.		10 gal.
5.12 oz.		100 gal.
51.2 oz.		1,000 gal.

FOR ALGAE TREATMENT OF DECORATIVE POOL APPLICATIONS:

- Initial Dosage:** 0.07 oz. per 52 gal. of water {(5 ppm active)}
- 0.4 oz. per 312 gal. of water {(5 ppm active)}
- 6.4 oz. per 5,000 gal. of water {(5 ppm active)}
- 12.8 oz. per 10,000 gal. of water {(5 ppm active)}

Weekly Maintenance: Add not more than one-half the initial dosage. When pool is to remain empty for several weeks or longer, spray exposed surfaces with a solution of 0.07 oz. of this product per 52 gal. of water {(or equivalent use dilution)}.

OPERATING FOUNTAINS APPLICATIONS:

Initial Dosage: Add a 0.03 oz. {(0.2 tsp.)} of this product per 52 gal. of water {(or equivalent use dilution)} at a time. Repeat until slight patches of foam appear. Then discontinue. Overdose reduces lighting efficiency.

Weekly Maintenance: Add not more than ½ the initial dosage until slight foam reappears.

Monthly Maintenance: Drain and clean bowl. Refill with fresh water and repeat initial treatment. Draining also removes airborne dirt, dust, contamination and alkali buildup.

PULP AND PAPER MILLS

SLIMICIDE APPLICATIONS: Do not use to treat paper or paperboard which will contact food. 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 0.2 – 40 gal. of this product per 100,000 gal. of whitewater {(1 – 200 ppm of product)} to be treated 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 0.2 – 20 gal. of this product per 100,000 gal. of whitewater {(1 – 100 ppm of product)} to be treated as necessary to maintain control.

CONTROL OF BACTERIAL, FUNGI/MOLD AND ALGAE {SLIME} ON PULP, PAPERBOARD & WET LAP: Application of this product must be made at a point in the system where mixing action is good or can be made at the size press or water box. For inhibition of wet lap or sheet pulp this product must be applied to the dewatered pulp surface via applicator rolls or showers.

Dosing Application: Apply at a rate of 0.4 – 80 lbs. of this product per ton {(dry basis)} of pulp or paperboard produced. This product may be drip fed continuously from the drum, diluted and showered to the wet sheet or fed by suitable pumps.

WOOD PRESERVATIVES

Do NOT use treated wood for construction/repair of bee hives.

SAP STAIN CONTROL: Seasonal variation in storage and shipping conditions, species and condition of wood must be considered in selection of end use concentration. For effective inhibition of mold and fungus, lumber and logs must be dipped or sprayed in a manner that ensures that all surfaces are uniformly treated.

To Apply to Lumber or Logs: Spray or dip lumber/logs with a use-solution of 1 gal. of this product per 25 – 100 gal. of water. Dip tanks and drip aprons must be roofed, paved and drained to prevent dilution and loss of the anti-stain solution.

For best results, green wood must be treated immediately, at least within 24 hours after cutting or sawing. Mold and fungus growth begins immediately after cutting so delayed treatment is much less effective and requires increased chemical concentration. Green, untreated lumber must not be used for stickers.

Freshly treated lumber must not be allowed to remain unprotected in heavy rains. Treated lumber must be stored under cover, or indoors, or at least 100 feet from any pond, lake, stream, wetland or river to prevent possible runoff of the product into the waterway. Treated lumber stored outdoors within 100 feet of a pond, lake, stream, wetland, or river must be either covered with plastic or surrounded by berm to prevent surface water runoff into the nearby waterway. If a berm is used around the site, it must consist of impermeable material (clay, asphalt, concrete) and be of sufficient height to prevent runoff during heavy rainfall events

WOOD PRESERVATIVES: {Wood articles that will be protected by these treatments would include millwork, construction timbers, decking, wood shingles, posts and other articles to be used in above ground applications.}

Treatment can be done {{by brush and/or spray,} {brush, spray for wood shingle applications,} {{and} by pressure, double vacuum, dip {method} {for other wood products.}} {Although dip, brush and spray cannot be used for protection against termites.} Apply in well ventilated areas.

(OR)

Treatment can be done by brush or spray for wood shingle applications, and by pressure, double vacuum or dip method for other wood products. Wood articles that will be protected by these treatments would include millwork, construction timbers, decking, wood shingles, and posts.

{This product can be used in combination with other EPA registered organic and inorganic wood preservatives or it can be used alone.} Dilute 1.28 – 7.68 oz. this product per gal. of either water or mineral spirits {or Sentry GoldSeal™} to produce a 0.5% – 3.0% active solution.

Percent Active Quat Solution	Oz. of Product Per Gal.
0.5	1.28
1.0	2.56
1.5	3.84
2.0	5.12
2.5	6.4
3.0	7.68

MAQUAT LC12S-50% EU AND COPPER COMPOUNDS: This product is only to be used in combination with the following copper compounds in pressure treatment applications. Mix this product with water and either [[ACQ-C2 EPA Reg. No 83997-4 or ACQ-C EPA Reg. No. 83997-2] {NW 100-C, EPA Reg. No. 3008-87 or NW 200-C, EPA Reg. No. 3008-89}]. Refer to the product labels for {{ACQ-C and ACQ-C2} {NW 100-C and NW 200-C}} for precise mixing instructions.

MAQUAT LC12S-50% EU AND BORATES: This product is only to be used in combination with the following borates in pressure treatment or dip treatment applications. Mix this product and [[an EPA registered source of Disodium Octaborate Tetrahydrate} {using either} {Wood Bor, EPA Reg. No. 3008-61,} {BoraSol WP, EPA Reg. No. 69529-2,} {Timbersaver, EPA Reg. No. 83997-8, TimberSaver PT, EPA Reg. No. 83997-8,} {Tim-Bor, EPA Reg. No. 1624-39,} {Cellu-Treat DOT Wood Preservative, EPA Reg. No. 64405-8,} {Bor-Ram, EPA Reg. No. 64405-18} {Borathor Max PT, EPA Reg. No. 81824-11}] in water. Refer to the product labels for precise mixing.

This product is only to be used in combination with the following borates in brush or spray applications. Mix this product and [[Lum-Bor, EPA Reg. No. 19713-286} {or} {BoraSol WP, EPA Reg. No. 69529-2}], in water. Refer to the product label for precise mixing instructions.

This product is only to be used in combination with the following borates in dip treatment applications. Mix this product and [[BORA-CARE, EPA Reg. No. 64405-1} {or} {BoraSol WP, EPA Reg. No. 69529-2}], in water. Refer to the product label for precise mixing instructions.

FOR PRESSURE TREATMENT APPLICATION: Place the wood article to be treated into the pressure cylinder and seal unit. Treat the wooden articles using the pressure treatment procedures consistent with the equipment being used and standard treatment practices. Treatment conditions must be such as to produce a 0.1 to 0.6 lb./cu. ft. retention in the treatment article. Treated wood is to be used for above ground uses only.

FOR DOUBLE VACUUM APPLICATION: Stack the wooden articles to be treated in the treatment vessel so that the preservative solution will have access to all sides of the articles. Seal the vessel. Reduce the pressure within the vessel to -10 in. for 5 minutes. Cover all the articles with preservative solution. Allow the pressure to return to atmospheric conditions and discharge the preservative solution. Reduce the pressure to -20 in. and maintain for 20 minutes. Allow the pressure to return to atmospheric and remove treated wood articles. Treatment conditions must be such as to produce a 0.1 – 0.6 lbs./cu. ft. retention of ADBAC in the treated article. Wood treated to this retention is to be used for above ground use only.

FOR DIP TREATMENT: Stack the wood to be treated on a suitable holder and convey the stack into the treating solution making sure the stack is completely immersed. Dip times must range from 30 seconds (individual pieces) up to 30 minutes (bundled wooden articles). Use a concentration of 0.5 – 3.0% active quaternary ammonium compound. The concentration should be customized to the degree of sap stain protection desired, which must be determined by an independent test on the intended species of wood.

FOR BRUSH OR SPRAY APPLICATIONS: A 0.5% – 3% active quaternary ammonium solution with water {(or Sentry GoldSeal™)} may be applied by brush or spray for use on wood shingles or shake roofs, siding on existing homes by commercial applicators, on interior construction products and surfaces such as lumber, concrete, sheetrock, wallboard, block and steel. Use low-pressure equipment for spray applications. A moderately fine spray, not an aerosol or fog, generally provides the best coverage at practical product concentrations. Apply only to point of runoff.



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 products with industrial, institutional, commercial use – May choose appropriate non-refillable/refillable statement.}

{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 ¼ 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 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 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 vapor or spray mist. Wear a NIOSH approved respirator with an organic vapor (OV) cartridge with a combination N, R, or P filter (NIOSH approval number prefix TC-84A). Wear goggles or face shield, rubber 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 that may appear on the label with the appropriate directions for use, PPE or package type.)

{Baby Drowning in Bucket
Warning Graphic}

{Picture of Gloved Hand and
Towel}

{Picture of Gloved Hand and
Towel}

{Picture of Gloved Hand and
Spray Bottle}

{Picture of Mop and Bucket}

{Recycling Logo}

{Made in USA Logo/Flag}