

10324-210

7/25/2012

1/7

Ms Elizabeth Tannehill
 Mason Chemical Company
 721 W Algonquin Road
 Arlington Heights IL 60005

JUL 25 2012

Subject Maquat® SSC EPA Registration No 10324 92
 Maquat®4450 CTM EPA Registration No 10324 210
 Application Dated April 24 2012
 EPA Receipt Date May 2 2012

Dear Ms Tannehill

The following amendment submitted in connection with registration under the Federal Insecticide Fungicide and Rodenticide Act (FIFRA) section 3 (C) (7) (A) as amended is acceptable with comments listed below

- Response to EPA letter dated 4/11/12

Conditions

Revise the For Use on Refillable Containers with Commercial/Industrial Uses as follows

- Add the following statement to the section beginning Cleaning the container before final disposal and ending is the responsibility of the refiller Add *When empty return to point of sale for refilling*
- Add the following statements to both the Container Handling/Residue Removal Instructions for all refillable containers except fixed tank containers as well as fixed tanks Revise to begin Refillable container *Refill this container with pesticide only Do not reuse this container for any other purpose* To clean the container
- Add the following statement to both the Container Handling/Residue Removal Instructions for all refillable containers except fixed tank containers as well as fixed tanks Revise to end as follows *Puncture or dispose of in a sanitary landfill or by other procedures approved by State and local authorities*

SYMBOL									
SURNAME									
DATE									

- Add the following statements to the Container Handling/Residue Removal Instructions for fixed tanks Revise to include application equipment or a mix tank *and continue to drain for 10 seconds after the flow begins to drip Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds Drain for 10 seconds after the flow begins to drip Drain rinsate into application*

General Comments

A stamped copy of the accepted labeling with conditions is enclosed Submit 1 copy of your final printed label before distributing or selling the product bearing the revised labeling 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)



MASON CHEMICAL COMPANY
The Quaternary Specialists

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

EPA Reg No 10324 210
EPA Est No 10324 IL 1

MAQUAT® 4450-CTM

Net Contents

Batch No

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER Keep Out of Reach of Children Poison Corrosive Causes irreversible eye damage Methanol may cause blindness Causes skin burns Fatal if swallowed inhaled or absorbed through the skin Do not get into eyes on skin or on clothing Do not inhale vapor or spray mist Wear goggles face shield or safety glasses Wear a respirator with an organic vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC 23C) or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC 14G) or a NIOSH approved respirator with an organic vapor (OV) cartridge with any N R P or HE filter Follow the manufacturer's instructions for cleaning/maintaining PPE If no such instructions for washable use detergent and not water Keep and wash PPE separately from other laundry Wash thoroughly with soap and water after handling and before eating drinking chewing gum using tobacco or using restroom Remove and wash contaminated clothing before reuse Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals

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

PHYSICAL OR CHEMICAL HAZARDS

Do not mix with soap anionic detergents or oxidizers
Flammable Keep away from heat and 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
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 Call a poison control center or doctor for further treatment advice

Restricted Use Pesticide - Due to high acute toxicity For retail sale to and use only by Certified Applicators or person under their direction supervision and only for those uses covered by the Certified Applicator's Certifications

A Water Treatment Microbiocide for Recirculating Cooling Water Tower Retort Water Systems Auxillary Water and Waste Water Systems Oil Field Water Flood/Salt Water Disposal Systems Once Through Fresh Water Cooling Systems and Fracturing Fluids
(The use site Retort Water Systems not for use in California)

(Product of USA) (Made in the USA)

ACTIVE INGREDIENT

Didecyl dimethyl ammonium chloride

(This product contains the toxic ingredient Methyl alcohol at 38 625%)

INERT INGREDIENTS

TOTAL

50 0%

50 0%

100 0%

Weight Approx 8lbs /gallon

KEEP OUT OF REACH OF CHILDREN

DANGER PELIGRO

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 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 PGI

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

DANGER IF YOU CANNOT READ ENGLISH ASK YOUR SUPERVISOR TO EXPLAIN THE APPROPRIATE INSTRUCTIONS FOR USE BEFORE WORKING WITH THIS PRODUCT

with COMMENTS
in EPA Letter Dated

AUG 25 2012

DANGER



POISON

Under the Federal Insecticide Fungicide and Rodenticide Act as amended for the pesticide registered under EPA reg No 10324-210

This formulation (Maquat® 4450 CT) 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 Do not use in the production of paper that contacts food

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 microbicide 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 holding tanks fuel storage tanks and related refinery and oil field closed industrial recirculating water handling systems

A highly effective microbicide 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. Do not use in 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 **Restricted Use Pesticide**

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

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 1/4 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

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

(Note Retort Water Systems use site not applicable 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
- 3 **Method of Application**

a INTERMITTENT OR SLUG METHOD

Initial Dose When the system is noticeably fouled apply 5 to 9 fluid ounces (20 to 35 ppm on an active quaternary basis) per 1000 gallons of water in the system Repeat every seven days or increase frequency if needed

Subsequent Dose When microbial control is evident add 2 to 3 fluid ounces (8 to 12 ppm on an active quaternary basis) per 1000 gallons of water in the system weekly or as needed to maintain control Badly fouled systems must be cleaned before treatment is begun Should slime develop again repeat initial dosage

b MODIFIED INTERMITTENT METHOD

Initial Dose When the system is noticeably fouled apply 5 to 9 fluid ounces (20 to 35 ppm on an active quaternary basis) 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 2 to fluid ounces (8 to 12 ppm on an active quaternary basis) per 1000 gallons 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 Repeat weekly as needed Should slime develop again repeat initial dosage

(OR)

INTERMITTENT OR SLUG METHOD

When this treatment is required add this product at the rate of 5 to 9 ounces per 1000 gallons of water already in the system or being added to the system for 4 to 8 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 2 to 3 ounces per 1000 gallons of water in the system

c CONTINUOUS FEED METHOD

Initial Dose When the system is noticeably fouled apply 5 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 2 fluid ounces (8 ppm on an active quaternary basis) per 1000 gallons of water lost by blowdown Badly fouled systems must be cleaned before treatment is begun

MAQUAT® 4450 CT
EPA REG. NO. 10324-210
DATE: JUL 25 2012
Under the Federal Insecticide Fungicide and Rodenticide Act as amended or the pesticide registered under EPA Reg No 10324-210

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) Wear safety glasses rubber gloves and impervious apron
 - b) Add product directly from drum or add the product at a point where it will be mixed uniformly
 - c) To reduce foaming mix 2 parts of water to 1 part of this product
 - d) Add 0.15 to 1.5 fluid ounces (0.6 to 6 ppm on an active quaternary basis) per thousand gallons
 - e) Do not discharge without performing proper deactivation To perform deactivation use Bentonite Clay The minimum ratio to be used is 6 ppm of clay to 1 ppm of product
 - f) Do not use product more than 4 times per year
 - g) Treatment time can not exceed 120 hours/application
 - h) 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 is to 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 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 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

This product must be added to the water flood or salt water disposal system at a point of uniform mixing

- 1 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 (120 75 -

- 241 75 ounces per 3 000 barrels of water) continuously Levels for effective control will vary depending on conditions at the site
- 2 For intermittent use dose at rate of 5 - 20 ppm (active) of this product (120 75 - 483 75 ounces per 3 000 barrels of water) for 4 to 8 hours per day one to four times a week as needed to maintain control
- 3 For treatment of flow back return water (Post Hydraulic Fracturing - Dose at a rate of 5 20 ppm active of this product (120 75 - 483 75 ounces 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

- 1 **Continuous Injection** Add this product at 30 ppm active (7.5 fluid ounces per 1000 gallons of water) when system is noticeably fouled When microbial control is evident add this product at 15 ppm active (3.75 fluid ounces per 1000 gallons water) to maintain control
- 2 **Batch Treatment** Add this product at 180 ppm active (46.25 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 (23 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

- 4 **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

- 5 **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

- 6 **EQUIPMENT USED** Use the injection pump to apply the product

- 7 **USE LIMITATIONS** Dependent upon pH temperature and salt content according to conditions found at the site as needed to maintain control

- 8 **DOSAGE APPLICATIONS**

a SLUG METHOD

Initial Dose When the system is noticeably fouled apply 15.25 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 7.5 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 15.25 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 7.5 gallons (30 ppm active ingredient) of this product per 1000 gallons of water in the system daily or as needed to maintain control

ACCEPTED

COMMENTS

Letter Dated

25 JUL 2012

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Initial Dose When the system is noticeably fouled apply 3.75 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 3.75 ounces (15 ppm active ingredient) of this product per 1000 gallons of water daily or as needed to maintain control

For the control of sulfate reducing bacteria and slime forming bacteria (This product or product name) must be added at 6.56 ounces per 1000 gallons of water (23.375 ppm active quaternary) via direct injection to a gas production or transmission pipeline to maintain 50.750 ppm of product. The application should be conducted to ensure maximum distribution of (this product or product name) through the entire internal surface of the pipeline. To facilitate application it may be desirable to dilute (this product or product name) with an appropriate solvent immediately before use. Injections must be done on a weekly basis at a minimum or more frequently as needed to maintain control.

Treat individual injection wells with this product to produce effective concentration of 65 1000 ppm (active) of this product. Update treatment rate as needed. This product must be diluted by the water present in the formation. Injection may be repeated yearly or as needed to maintain control.

Add this product to slug of water immediately following the scraper (keep the water volume to a minimum and contained between the scraper and the following pig). Add an effective concentration to produce 75 – 500 ppm depending on the length of the pipeline and the severity of the biofouling

Add to the fluid system at a point of uniform mixing such as circulating mud tank Initial treatment 65 – 1000 ppm (active) added to a freshly prepared fluid Maintenance dosage 65 – 1000 ppm so as to maintain control

Add to a packer fluid at a point of uniform mixing such as a circulating holding tank. Change the rate of 65 - 1000 ppm (active per 100 barrels of fluid) to a freshly prepared fluid depending on the severity of contamination. Seal the fresh packer fluid in the well between the casing and the production tube.

Treat water used to hydrotest pipelines or vessels at 65 – 1000 ppm active chlorine on the water quality and length of time the equipment will remain idle

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

Add 5 – 180 ppm (active) of this product (0.95 34 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

STORAGE AND DISPOSAL

(FOR USE ON NON REFILLABLE CONTAINERS WITH COMMERCIAL/INDUSTRIAL USES)

PESTICIDE STORAGE Store only in original container. Keep from freezing. If a leaky container must be contained within another, mark the outer container to identify the contents. Keep this product under locked storage sufficient to make it inaccessible to children or persons unfamiliar with its proper use.

container. Triple rinse as follows. Fill container / full with water and recap. Shake for 10 seconds. Follow Pesticide Disposal instructions for rinse disposal. Drain for 10 seconds after the flow begins to drip. Repeat procedure two more times. Wrap container and put in trash or offer for recycling or reconditioning. If not available, puncture and dispose of in a sanitary landfill!

(FOR USE ON NON REFILLABLE CONTAINERS WITH COMMERCIAL/INDUSTRIAL USES)

PESTICIDE STORAGE Open dumping is prohibited. Store only in original container. Keep from freezing. If a leaky container must be contained within another, mark the outer container to identify the contents. Keep this product under locked storage sufficient to make it inaccessible to children or persons unfamiliar with its proper use.

CONTAINER DISPOSAL (Note Only one of the following Container Disposal paragraphs will r

Non refillable container Do not reuse this container to hold materials other than pesticides
Diluted pesticides (rinsate) 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 for other purposes, follow pesticide disposal instructions

Non-refillable sealed container None of these can be triple rinsed because they are not designed for such exposure to the concentrate. The following text will be used on these **non-refillable sealed container** types only.)

RESIDUE REMOVAL INSTRUCTIONS To clean the container before final disposal empty the remaining contents from this container into [(application equipment) (a mix tank)]. Fill the container / 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 then 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) (Agitate vigorously or recirculate water for 30 seconds)] Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Follow Pesticide Disposal instructions for rinsate disposal. Repeat this procedure two more times.

(FOR USE ON REFILLABLE CONTAINERS WITH COMMERCIAL/INDUSTRIAL USES)

(Note For use on all refillable containers)

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.

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. 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.

(For use on all refillable containers except fixed tank containers)

CONTAINER HANDLING/RESIDUE REMOVAL INSTRUCTIONS Refillable container: To clean the container before final disposal, empty the remaining contents from this container into [(application equipment) (a mix tank)]. Fill the container / 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; then 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) (Agitate vigorously or recirculate water for 30 seconds)]. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Follow Pesticide Disposal instructions for rinsate disposal.

(Note: To be used on fixed tanks only)

CONTAINER HANDLING/RESIDUE REMOVAL INSTRUCTIONS Refillable container: To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Drain rinsate into application equipment and dispose of according to Pesticide Disposal instructions. Triple rinse container (or equivalent) promptly after emptying. Continue to drain for 10 seconds after the flow ends. Repeat this procedure two more times.

Made in USA



ACCEPTED
with COMMENTS
in EPA Letter Dated

JUL 25 2012

Under the Federal Insecticide,
Fungicide, and Rodenticide Act as
amended for the pesticide
registered under EPA Reg No. 0324-210 -