

10324-21

8-14-2002

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

AUG 14 2002

Marc Mason  
General Manager  
Mason Chemical Company  
721 W. Algonquin Road  
Arlington Heights, IL 60005

SUBJECT: Maquat LC-12S-50%  
EPA Registration Number: 10324-21  
Application Date: May 17, 2002  
Receipt Date: May 20, 2002

Dear Mr. Marc Mason:

The following amendment, submitted in connection with registration under section 3(c)(7)(A) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable for the reasons listed below:

- Revise Precautionary Statements
- Update Disposal Statements
- Update First Aid Statements
- Label language update
- Add Tank Mixes

**Conditions**

The new name of record: "Maquat LC12S-50% EU" is acceptable and will be made part of the record for this file.

Revise the label as follows:

1. Revise the "Storage and Disposal" section "For Industrial water Treatment use, Industrial and/or Commercial Recirculating Cooling Water Towers..." by repeating the statement: "Do not contaminate water, food, or feed by storage and disposal" in the section.

**CONCURRENCES**

SYMBOL	7510C							
SURNAME	J. Park							
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

2. As per the last letter from the Agency, delete the phrase "Directions for Use" and the statement "It is a violation of Federal Law to use this product in a manner inconsistent with its labeling." as it appears in association with "Industrial Water Treatment." Your label should have only one section headed "Directions for Use".

3. Delete the following statement from the "Maintenance Application" directions for Swimming Pools: "Quaternary Test Kits are available for this use." The Agency is unable to establish that these types of kits are readily available to consumers. In addition, delete the phrase "or as needed to maintain 0.5 ppm active."

General Comments

A stamped copy of the accepted labeling as well as copies of the associated reviews are enclosed. Submit one (1) copy of your final printed labeling before distributing or selling the product bearing the revised labeling.

Submit and/or cite all data required for registration/reregistration of your product under FIFRA section 3(c)(5) and section 4(a) when the Agency requires all registrants of similar products to submit such data.

If the above conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product bearing the amended labeling constitutes acceptance of these conditions.

Should you have any questions or comments concerning this letter, please contact Tracy Lantz at (703) 308-6415.

Sincerely,

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

7510C:T.Lantz:8/12/02:10324-21a

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

**DANGER.** Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed or absorbed through skin. Do not get into eyes, on skin or on clothing. Wear protective eyewear (goggles, safety glasses or face shield), protective clothing, and rubber gloves. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse. Prolonged or frequent skin contact may cause allergic reactions in some individuals.

**ENVIRONMENTAL HAZARD**

This pesticide is toxic to fish. 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.  
(Use the statement below for swimming pools only and less than 5 gallon containers.)

**ENVIRONMENTAL HAZARD**

This product is toxic to fish.

**PHYSICAL OR CHEMICAL HAZARDS**

Do not mix with soap, anionic detergents or oxidizers.

(For Swimming Pool Use 1 gallon or less)

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE** Store in original containers and place in locked storage area. Keep from freezing. Do not contaminate water, food, or feed by storage or disposal.

**SPILL OR LEAK PROCEDURES** Small spills may be mopped up or flushed away with water or absorbed on some absorbent material and incinerated.

**PESTICIDE DISPOSAL:** Securely wrap original container in several layers of newspaper and discard in trash.

**CONTAINER DISPOSAL** Do not reuse container (bottle, cans, jars). Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

*(For Industrial Water Treatment Use, Industrial and /or Commercial Recirculating Cooling Water Towers and Recirculating Cooling Water Systems, Auxillary water and waste water systems and water cooling systems, once through fresh water cooling systems, sap stains, wood preservatives.)*

**STORAGE AND DISPOSAL**

**PESTICIDE STORAGE** Store in original containers and place in locked storage area. Keep from freezing.

**SPILL OR LEAK PROCEDURES** Small spills may be mopped up or flushed away with water or absorbed on some absorbent material and incinerated. Large spills should be contained, the material then moved into containers and disposed of by approved methods for hazardous wastes.

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

**CONTAINER DISPOSAL** Do not reuse empty container (bottle, cans, jars). Triple rinse (or equivalent). Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or incinerate or if allowed by state and local authorities, by burning. If burned stay out of smoke.

**MAQUAT LC12S-50% EU**

MAQUAT LC12S-50% EU for control of Algae, Algal, Fungal And Bacterial Slimes in Recirculating Water Systems, Auxillary Water and Waste Water Systems and Water Cooling Systems, Molluscs in once Through Freshwater Cooling Systems, Mold, Mildew and Fungi in Sap Stains and Wood Preservatives.

**ACTIVE INGREDIENTS:**

n-Alkyl (67% $C_{12}$ , 25% $C_{14}$ , 7% $C_{16}$ , 1% $C_{18}$ )

dimethyl benzyl ammonium chloride..... 50.0%

**INERT INGREDIENTS:** ..... 50.0%

**TOTAL:** ..... 100.0%

Weight: Approx 8lbs./gallon

**KEEP OUT OF REACH OF CHILDREN**

**DANGER PELIGRO**

See left panel for additional precautionary statements

**First Aid**

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

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

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

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

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

**MASON CHEMICAL COMPANY**

**"THE QUATERNARY SPECIALISTS"**

721 W. Algonquin Road

Arlington Heights, IL 60005

847-290-1621

Toll Free:

1-800-362-1855

ACCEPTED

with COMMENTS  
in EPA Letter Dated:

AUG 14 2002

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act as

E.P.A. Reg. No. 10324-21  
E.P.A. Est. No. 10324-IL-1

amended, for the pesticide,  
registered under EPA Reg. No.  
10324-21

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BATCH NO

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## DIRECTIONS FOR USE

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

### SAP STAIN CONTROL

For control of mold and fungus on green or freshly cut lumber. May be used in a dip or spray application. Before use, dilute at a rate of 25-100 gallons of water per gallon of this product. Seasonal variation in storage and shipping conditions, species and condition of wood should 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.

For best results, green wood should be treated immediately, at least within twenty-four 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 should not be used for stickers.

Freshly treated lumber should not be allowed to remain unprotected in heavy rains. Dip tanks and drip aprons must be roofed, paved and drained to prevent dilution and loss of the anti-stain solution.

### WOOD PRESERVATIVES

This product can be used in combination with other EPA registered organic and inorganic wood preservatives or it can be used alone.

### MAQUAT LC12S-50% EU

Dilute this product in either water or mineral spirits to produce a 0.5% to 3.0% active quaternary ammonium compound solution. Date:   
 AUG 14 2002

Percent Active Quat Solution	Ounces of product per gallon
0.5	1.28
1.0	2.56
1.5	3.85
2.0	5.12
2.5	6.4
3.0	7.68

To find the ounces of this product per gallon for other dilutions take the percent active desired and divide by 0.3906.

### MAQUAT LC12S-50% EU AND COPPER COMPOUNDS

Mix this product with water and either ACQ-C2 EPA Reg. No 10465-36 or ACQ-C EPA Reg. No. 10465-33. Refer to the product labels for ACQ-C and ACQ-C2 for precise mixing instructions.

### MAQUAT LC12S-50% EU AND BORATES

Mix this product and Tim-Bor, EPA Reg. No. 1624-39 in water and stir to give a solution of the desired concentration of components.

### MAQUAT LC12S-50% EU AND PROPICONAZOLE

Mix this product with Woodlife P, EPA Reg. No. 1409-65 and dilute with either water, mineral spirits or other light organic solvent to produce a 0.5 to 3.0% quaternary ammonium compound solution. Follow the instructions on the Woodlife P label for the appropriate concentration of propiconazole. PLEASE NOTE THAT THIS FORMULATION CAN ONLY BE USED FOR DIP TREATMENT.

### PRESSURE TREATMENT

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 should be such as to produce a 0.1 to 0.6 lb./cu. foot retention in the treatment article. Such treated wood is to be used for above ground uses only.

### DOUBLE VACUUM

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 should be used as to produce a 0.1 to 0.6 lbs/cu. ft retention of ADBAC in the treated article. Wood treated to this retention for above ground use only.

### 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 should range from 30 seconds (individual pieces) up to 30 minutes (bundled wooden articles). Use a concentration of 0.5 to 3.0% active quaternary ammonium compound, the concentration should be customized to the degree of sap stain protection desired, which should be determined by an independent test on the intended species of wood.

### PERSONAL PROTECTION EQUIPMENT FOR PRESSURE TREATMENT, DOUBLE VACUUM AND DIP TREATMENT

Applicators must wear gloves which are chemical-resistant (such as nitrile or butyl) in all situations where dermal contact is expected (i.e. handling freshly treated wood and manually opening cylinder doors.) Individuals who enter pressure treatment cylinders and other related equipment that are contaminated with the wood treatment solution (e.g. cylinders that are in operation or are not free of all treatment solution) must wear coveralls over a long sleeved shirt and long pants, socks, chemical-resistant footwear, and protective eyewear. Federal, State and local confined space entry procedures need to be taken.

Applicators must not eat, drink or use tobacco products during those parts of the applications process that may expose them to the wood treatment formulation (e.g. manually opening/closing cylinder doors, moving trams out of cylinders, mixing chemicals, handling freshly treated wood).

Wash thoroughly after skin contact and before eating, drinking, use of tobacco products or using restrooms.

Protective clothing must be changed when it shows signs of contamination. Applicators must leave protective clothing and work shoes or boots and equipment at the plant. Worn out protective clothing and work shoes or boots must be left at the plant and disposed of in a manner approved for pesticide disposal and in accordance with State and Federal regulations.

### BRUSH OR SPRAY

A 0.5% to 3.0% active solution with water may be applied by brush or spray for use on wood shingles or shake roofs and siding on existing homes by commercial applicators. Low pressure equipment is recommended 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. To make a 0.5% to 3.0% active solution, use the following table:

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Percent Active Quat Solution	EPA Letter	Ounces of product per gallon
0.5		1.28
1.0	AUG 14 2002	2.56
1.5	Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 10324-21	3.85
2.0		5.12
2.5		6.40
3.0		7.68

To find the ounces of this product per gallon for other dilutions take the percent active desired and divide by 0.3906.

#### PERSONAL PROTECTION EQUIPMENT FOR BRUSH AND SPRAY APPLICATIONS

Applicators must wear gloves which are chemical-resistant (such as nitrile or butyl). Applicators must also wear coveralls over a long sleeved shirt and long pants, socks, chemical-resistant footwear, and protective eyewear. Applicator must not eat, drink, or use tobacco during the application process. Use with adequate ventilation, mist or vapor generated by spraying this product may be harmful if inhaled. Wash thoroughly after skin contact and before eating, drinking, use of tobacco products or using restrooms. Protective clothing must be changed when it shows signs of contamination. Brush/Spray treatment may require frequent changing. Discard clothing and other absorbent materials that have been drenched or heavily contaminated. Do not reuse them.

Follow manufacturers instructions for cleaning/maintaining protective equipment. If no such instructions exist for washables, use detergent and hot water. Keep and wash protective equipment separate from other laundry.

Worn out protective clothing and work shoes or boots must be disposed of in a manner approved for pesticide disposal and in accordance with State and Federal regulations.

#### DIRECTIONS FOR USE INDUSTRIAL WATER TREATMENT

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

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

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.

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

- 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.
- DOSING CONDITIONS:** This product should be applied when the system is in jeopardy of being affected or after cleaning systems where efficiency is already impaired.
- METHOD OF APPLICATION:**

#### a) INTERMITTENT OR SLUG METHOD

**Initial Dose:** When the system is noticeably fouled, apply 5.25 to 10.25 fluid ounces (20 to 40 ppm on an active quaternary basis) per 1000 gallons of water in the system. Repeat until control is achieved.

**Subsequent Dose:** when microbial control is evident, add 1.33 to 3.85 fluid ounces (5 to 15 ppm on an active quaternary basis) per 1000 gallons of water in the system twice weekly or as needed to maintain control. Badly fouled systems must be cleaned before treatment is begun.

#### b) MODIFIED INTERMITTENT METHOD

**Initial Dose:** When the system is noticeable fouled, apply 5.25 to 10.25 fluid ounces (20 to 40 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 1.33 to 3.85 fluid ounces (5 to 15 ppm on an active quaternary basis) per 1000 gallons of water in the system. Apply half of this subsequent dose when half of the water in the system has been lost by blowdown. Badly fouled systems must be cleaned before treatment is begun.

#### c) CONTINUOUS FEED METHOD

**Initial Dose:** When the system is noticeably fouled, apply 5.25 fluid ounces (20 ppm on an active quaternary basis) per 1000 gallons of water in the system.

**Subsequent Dose:** Maintain this treatment by starting a continuous feed of 1.33 fluid ounces (5 ppm on an active quaternary basis) per 1000 gallons of water lost by blowdown. Badly fouled systems must be cleaned before treatment is begun.

#### ONCE THROUGH WATER COOLING SYSTEMS

- 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.
- DOSING CONDITIONS:** This product should be applied when the system is in jeopardy of being affected or after cleaning systems where efficiency is already impaired.
- METHOD OF APPLICATIONS:**
  - Wear safety glasses, rubber gloves and impervious apron.
  - Add product directly from drum or add the product at a point where it will be mixed uniformly.
  - To reduce foaming, mix 2 parts of waqter to 1 part of this product.
  - 0.15 to 1.5 fluid ounces (1-10 ppm on an active quaternary basis) per thousand gallons.
  - Do not discharge without performing proper deactivation. To perform deactivation use Bentonite Clay. The minimum ration to be used is 6 ppm of clay to 1 ppm of product.
  - Do not use product more than 4 times per year.
  - Treatment time can not exceed 120 hours/application.
  - Avoid oxidizers and reducing agents. Product is cationic and should not be mixed with soap or anionic surfactants.

#### AUXILLARY SERVICE WATER AND WASTE WATER SYSTEM

This product is effective for the control of odor-forming and slime-forming bacterial, fungi and algae in auxillary 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.

This product may be added to the system 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 should be made during the pumping operation and as close to the pump as possible to ensure adequate mixing.

#### INTERMITTENT OR SLUG METHOD

When this treatment is required, add this product at the rate of 5.25 to 10.25 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 1.33 to 3.85 ounces per 1000 gallons of water in the system.

#### SWIMMING POOLS

##### IMPORTANT NOTES

1. Do not allow swimming in pool for at least 15 minutes after this product has been applied.
2. Always apply this and other pool treatment chemicals separately, never combine them.
3. Sunlight, rainfall, temperature, number of swimmers and frequency of pool use, all affect the rate at which unsanitary pool water conditions develop. Adjust your pool cleaning and maintenance functions accordingly.

##### BEFORE YOU BEGIN

1. Make sure all pool equipment is working properly including pump, filter, skimmer and heater. Allow the filter to run for at least 6 hours after adding algaecide.
2. Backwash filter following normal procedure for your pools filter.
3. Check water pH (acidity/alkalinity balance) with a Test Kit, following label direction. Desired pH range is between 7.2-7.6. If necessary, adjust pH by adding pH decreaser to lower pH or pH increaser to raise pH.
4. Recheck pH and maintain it between 7.2-7.6 for at least 6 hours before adding this product.
5. Add this product directly into pool by pouring around entire outside perimeter of pool.

##### INITIAL APPLICATION FOR SWIMMING POOLS

1. Vacuum algae debris to waste and thoroughly brush pool.
2. Add 26 ounces of this product to each 50,000 gallons of water (5.2 ounces per 10,000 gallons) or ratio thereof. Add this product directly into pool by pouring around entire outside perimeter of pool.
3. Vacuum pool after 24 hours to remove dead algae.
4. If algae is still visible repeat dose (steps 3 & 4) as necessary until pool is free of visible algae.
5. Once algae is under control, clean filter and return to normal operation.

##### MAINTENANCE APPLICATION

Add 6.5 ounces of this product in 50,000 gallons of water every 3-5 days or as needed to maintain 0.5 ppm active. Add this product directly into pool by pouring around entire outside perimeter of pool. Quaternary Test Kits are available for this use.

##### BOOSTER APPLICATION

6.5 ounces of this product in 50,000 gallons of water after a heavy or prolonged rainfall or when there is a heavy bathing load. Add this product directly into pool by pouring around entire outside perimeter of pool.

If algae growth is noticeable, apply initial dose.

THE ABOVE DIRECTIONS SHOULD BE FOLLOWED EVEN WHEN THE POOL IS NOT IN USE.

ACCEPTED  
with COMMENTS  
in EPA Letter Dated:

AUG 14 2002

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act as  
amended, for the pesticide,  
registered under EPA Reg. No. 10324-21