

MOGUL AG-460

For control of microorganisms in recirculating water cooling towers and paper mills.

Directions and Application:

Cooling Towers: MOGUL AG-460 controls bacteria, yeasts, fungi and algae in recirculating water cooling towers. When the system is noticeably fouled, apply an initial dose of 21 to 45.4 fluid ounces of MOGUL AG-460 per 1000 gallons of water in the system (174.5 to 377 parts of product per million parts of water). Repeat daily until control is evident. When microbiological control is evident, add a subsequent treatment of 5.8 to 28.8 fluid ounces of MOGUL AG-460 per 1000 gallons of contained water (49 to 243 parts per million) 1 to 3 times per week, depending on the severity of the problem. The product should be applied to the cooling tower basin or cold water sump, or at an alternate point which provides good mixing.

Badly fouled systems should be cleaned before starting treatment.

Paper Mills: MOGUL AG-460 is added to the whitewater system or to the stock furnish at a normal rate of 0.4 to 2.2 pounds per ton of dry paper, to control bacteria, fungi, yeasts, and their associated slimes. The exact dosage will depend upon operating conditions and extent of microbiologic contamination in the system. If slime build-up is heavy, addition is best made in periodic shock dosages such that the total required dosage is added within a two-to-four-hour period. Otherwise, the microbicide may be metered continuously into the system at the recommended dosage.

Handling Precautions:

WARNING: Keep out of reach of children.
Causes eye burns and skin irritation.
May be harmful or fatal if swallowed or absorbed through skin.
Combustible. Do not use, pour, spill, or store near heat or open flame.
Do not get in eyes, on skin, on clothing.
Avoid breathing vapor or mist.
Keep container closed.
Use with adequate ventilation.
Wear rubber gloves and goggles or face shield when handling.
Wash thoroughly after handling.

FIRST AID: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes; call a physician.

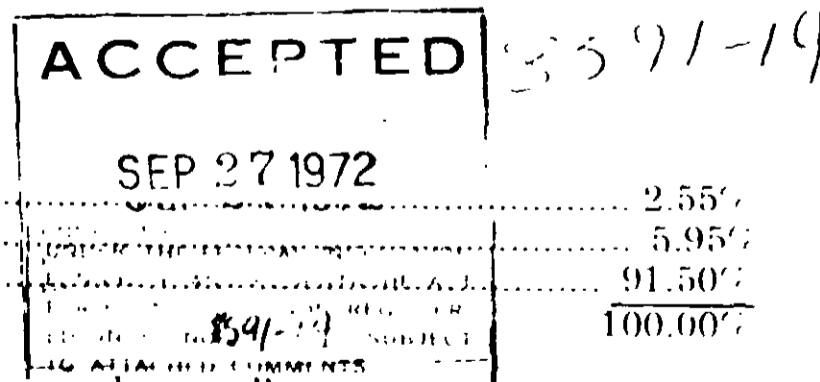
CAUTION: This product is toxic to fish and wildlife. Treated effluent should not be discharged where it will drain into lakes, ponds, streams or public water. Do not contaminate water by cleaning of equipment or disposal of wastes. Apply this product only as specified on this label.

Do not use empty drum. Return to drum reconitioner or destroy by perforating or crushing and burying in a safe place.

Ingredients:

Active ingredients:		
Methylene bis(thiocyanate)	2.55%
Dimethyl formamide	5.95%
Inert ingredients:	91.50%
		100.00%

Product Weight 9.00 pounds per gallon



Microbiological Control



MOGUL AG-460

EPA Reg. No. 8591-14

PRODUCT BULLETIN

APPLICATION

MOGUL AG-460 is an extremely effective liquid microbiocide which will control algae, bacteria and fungi in recirculating cooling water systems. MOGUL AG-460 also will control microbiological slime deposits in pulp, paper and paperboard systems. MOGUL AG-460 is especially effective in systems fouled or subject to periodic contamination with process hydrocarbons. MOGUL AG-460 will provide general microbiological control at low treatment levels without the limitations of oxidizing microbiocides.

PRODUCT PROPERTIES

Appearance - Amber Liquid
Weight 9 pounds/gallon
Odor Hydrocarbon

DOSAGES(See drum label for details)

Dosage levels of MOGUL AG-460 will depend on the severity of the microbiological infestation.

For Contaminated Systems (175 - 375 ppm)

21-45 Ounces per 1000 gallons of water to be treated will provide good control over severe infestations and provide excellent penetration and dispersion for the removal of existing deposits -- repeated applications should be made until the system is free of deposits.

For Normal Control (50-240 ppm)

6 - 28 Ounces per 1000 gallons of water to be treated should be added once or twice weekly or as needed to maintain proper microbiological control.

All applications of MOGUL AG-460 should be maintained at minimum treatment levels for 6 hours. Optimum pH levels in the treated system are between 5.5 - 7.5. pH levels above 8.0 will result in poor treatment efficiency.

For Paper Mills - Use from 1/2 to 2-1/8 pound per ton of dry paper, added to the whitewater system or the stock furnish. Continuous feed is preferred for best control.

FEEDING

MOGUL AG-460 can be fed either on a slug basis or continuously, depending on system characteristics. When fed continuously, MOGUL AG-460 can be applied as shipped or as a 5% water emulsion. Use feeding equipment which is acid-resistant or lined with high density polyethylene or polypropylene. Stainless steel can also be used. Do not use standard metals or other plastics since deterioration can occur.

TESTING & CONTROL

No direct test for MOGUL AG-460 is possible. Feeding rates should be based on calculations of the system capacity and holding time index. Control should be based on visual results and analytical test for microbiological levels.

HANDLING & STORAGE

(See cautions on drum label)

Irritating to skin and eyes. Absorption through skin harmful. Harmful if swallowed.

MOGUL AG-460 should be handled carefully. Do not get in eyes, on skin, or on clothing. When handling, protective clothing, goggles or a face shield are necessary.

Do not take internally. In case of contact, immediately wash skin with soap and water for 15 minutes. For eyes, flush with large

amounts of water for at least 15 minutes and get medical attention.

Maximum in-plant storage time of six months is recommended.

This product is toxic to fish and wildlife. Treated effluent should not be discharged where it will drain into lakes, streams, ponds, or public water. Do not contaminate water by cleaning of equipment or disposal of wastes. Apply this product only as specified on the drum label.

PACKAGING & SHIPPING

MOGUL AG-460 is shipped in non-returnable polyethylene-lined fiber drums.

F. O. B. Shipping Point.