



MULTIBROM[®] Liquid

ITEM CODE: **6584722**

Net Contents: Bulk

A disinfectant, sanitizer, bactericide, slimicide, and algaecide for treating recirculating cooling water systems and once-through cooling water systems, pulp and paper mills, and wastewater treatment systems.

ACTIVE INGREDIENT:

| | |
|-------------------------------|-------------|
| Sodium Bromide..... | 40% |
| INERT INGREDIENTS..... | 60% |
| TOTAL..... | 100% |

KEEP OUT OF REACH OF CHILDREN CAUTION

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| FIRST AID |
| 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. Call a poison control center or doctor 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 by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice. |
| 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 Swallowed: Call 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 the poison control center or doctor. Do not give anything by mouth to an unconscious person. |
| FOR EMERGENCY MEDICAL INFORMATION IN USA OR CANADA, CALL: 1-800-328-0026. FOR EMERGENCY MEDICAL INFORMATION WORLDWIDE, CALL: 1-651-222-5352 (IN THE USA). |
| Have the product container or label with you when calling a poison control center or doctor, or going for treatment. Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage. |

See side panel for additional precautionary statements.

Distributed By:
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PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

HARMFUL IF SWALLOWED. HARMFUL IF ABSORBED THROUGH THE SKIN. Avoid breathing dust. Avoid contact with eyes, skin, clothing. Do not smoke, drink or eat when handling. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before re-use.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic organisms. Do not contaminate water by cleaning of equipment or disposal of wastes. 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 to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

CHEMICAL AND PHYSICAL HAZARDS

Avoid contact with strong oxidizers (except when in use), acids, alkaline, and heavy metal salts.

STORAGE & DISPOSAL

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

Storage: Store in a cool, well-ventilated area, in well-closed original containers.

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 in accordance with label instructions, contact your Regional Office of the EPA for guidance.

Container Handling: Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip the 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 it back and forth several times. Empty rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

DO NOT SHIP WITH FOODS, FEEDS, DRUGS, OR CLOTHING KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE

EPA Reg. No. 8622-49-1677

EPA Est. No. 1677-IL-2 (J), 1677-TX-1 (D), 1677-CA-1 (S), 1677-GA-1 (M), 1677-MN-1 (P), 1677-CA-2 (R), 1677-WV-1 (V).

Superscript refers to the first letter of date code.

DIRECTIONS FOR USE

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

MULTIBROM Liquid is to be used in conjunction with an oxidant such as sodium hypochlorite (12.5%), chlorine gas (99.9%), trichloro-s-triazinetriene (99.0%), sodium dichloro-s-triazinetriene (99.0%) or sodium dichloro-s-triazinetriene dihydrate (99.0%) to produce hypobromous acid.

MULTIBROM Liquid may be added at the system inlet water or metered into the existing sodium hypochlorite piping to form a solution of sodium hypobromite. *MULTIBROM Liquid* can be added whenever chlorination is applied, for all uses. Consult your feeder manufacturer for correct procedure and proper use of feeder equipment.

INDUSTRIAL RECIRCULATING COOLING WATER SYSTEMS

Use effectively at dosages recommended to achieve exposures to 0.5-5.0 parts per million (ppm) of "active" residual bromine, or as needed to maintain control of algal, bacterial and fungal slimes in commercial and industrial cooling towers, heat exchange water towers, industrial water scrubbing systems, and influent systems such as flow-through filters, lagoons, etc.

DOSAGE RATES

Initial Dose: When noticeably fouled, add sufficient *MULTIBROM Liquid* and oxidant to achieve the "active" residual bromine level (0.5-5.0 ppm), measured about 5 minutes after treatment. A 0.5-2.0 mole ratio of sodium bromide to oxidant is recommended. Typically, the recommended mole ratio may be achieved by using 1.5-6.0 pounds of chlorine gas (99.9%), 1.3-5.2 gallons NaOCl (12.5%), 1.7-6.7 pounds of trichloro-s-triazinetriene (99.0%), 2.4-9.5 pounds of sodium dichloro-s-triazinetriene (99.0%), or 2.7-10.7 pounds of sodium dichloro-s-triazinetriene dihydrate (99.0%) for each gallon of *MULTIBROM Liquid*.

Subsequent Dose: When microbial control is evident, add sufficient *MULTIBROM Liquid* and oxidant to maintain the "active" residual bromine level (0.5-5.0 ppm), measured about 5 minutes after treatment. Continue as in initial dose.

ONCE-THROUGH INDUSTRIAL COOLING WATER SYSTEMS

Used for the control of algal, bacterial, and fungal slimes in once-through and closed-cycle fresh and seawater cooling systems. Apply *MULTIBROM Liquid* and oxidant to the system inlet water or before any other contaminated area in the system.

DOSAGE RATES (Initial and Subsequent)

Same as for Industrial Recirculating Cooling Water Systems.

PULP AND PAPER MILLS

Used for the control of algal, bacterial and fungal slimes, in pulp and paper mill fresh and sea water influent systems, cooling water systems, wastewater treatment systems, nonpotable water systems and other process water. Apply *MULTIBROM Liquid* with oxidant as directed.

DOSAGE RATES (Initial and Subsequent)

Same as for Industrial Recirculating Cooling Water Systems.

WASTEWATER

MULTIBROM Liquid, when used as directed, will disinfect wastewater effectively. The amount of sodium bromide required is determined by the degree of fouling.

MULTIBROM Liquid can be added to one or several locations of the wastewater system. If its construction permits, it is often added at the influent of the final clarifier or at the point in the system where a secondary treatment is given, prior to effluent discharge.

MULTIBROM Liquid and an oxidant should be added in quantities sufficient to reach residual bromine levels of 0.3-1.0 ppm measured about 5 minutes after treatment. A 0.08-2.0 mole ratio is recommended. Typically, the recommended mole ratio may be achieved by using 0.2-6.0 pounds of chlorine gas (99.9%), 0.2-5.2 gallons of NaOCl (12.5%), 0.3-6.7 pounds of trichloro-s-triazinetriene (99.0%), 0.4-9.5 pounds of sodium dichloro-s-triazinetriene (99.0%), or 0.4-10.7 pounds of sodium dichloro-s-triazinetriene dihydrate (99.0%) for each gallon of *MULTIBROM Liquid*. The treatment with *MULTIBROM Liquid* can be evaluated by determining whether the total number of coliform bacteria and/or fecal coliform bacteria (using the MPN Procedure) has been reduced to a level permitted by governing regulations.

AIR WASHERS AND BREWERY PASTEURIZERS:

When used in conjunction with an oxidant, this product effectively controls algal, bacterial, and fungal slime in influent water systems such as flow through filters, cooling ponds, canals, and lagoons; heat exchange water systems; air washers; pasteurizers; retort systems; and industrial water scrubbing systems.

DOSAGE RATES:

Add this product to the system at 0.125 to 2.0 sodium bromide/oxidant mole ratio. For example:

- 1.6 to 26.5 pounds of chlorine gas (99.9%) per gallon of sodium bromide solution; or,
- 1.3 to 21.2 gallons sodium hypochlorite (12.5% available chlorine) solution per gallon sodium bromide solution.

Initial Dose:

When the system is noticeably fouled, add 0.0003 to 0.024 gallons of this product per 1000 gallons of water contained in the system and oxidize with either gas chlorine (0.008 to 0.040 pounds gas chlorine per 1000 gallons of contained water), or sodium hypochlorite solution (0.007 to 0.032 gallons of 12.5% sodium hypochlorite solution per 1000 gallons of contained water).

Subsequent Dose:

When microbial control is evident, add 0.0002 to 0.024 gallons of this product per 1000 gallons of water contained in the system and oxidize with either gas chlorine (0.004 to 0.040 pounds gas chlorine per 1000 gallons of contained water), or sodium hypochlorite solution (0.003 to 0.032 gallons of 12.5% sodium hypochlorite solution per 1000 gallons of water).

FRUIT AND VEGETABLE WASH

When used in conjunction with an oxidant (Chlorine gas or NaOCl), this product can be used for the wash and transport of fruits and vegetables. This product and oxidant should be added at a rate not to exceed a dosage of 55ppm of product (38.5 gallons of this product per one million gallons of water treated). Apply sufficient amount of this product and chlorine or sodium hypochlorite to achieve a residual bromine level of 0.5 to 5 ppm when measured approximately 5 minutes after treatment. The recommended activation mix of this product and oxidant is a one to one molar ratio. Chlorine dose (99%) 3.3 pounds, 10% NaOCl dose (3.3 gallons) or 15% NaOCl dose (2.0 gallons) will activate one gallon of this product (40% sodium bromide solution). This product may be continuously metered to Chlorinator eductor water or mixed with a NaOCl solution for activation. The use of this product under this application must be followed by a potable water rinse to remove, to the extent possible, residues of the chemical.

WARRANTY: Seller warrants that this product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with label directions under normal conditions of use, but neither this warranty nor any other warranty of MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to Seller, and Buyer assumes the risk of any such use.



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