

8622-49

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF
CHEMICAL SAFETY AND
POLLUTION PREVENTION

May 3, 2010

George Katsigras
ICL Industrial Products
95 MacCorkle Ave., S.W.
South Charleston, WV. 25303

Subject: Bromide Plus
EPA Registration Number 8622-49
Application Date: February 5, 2010

Dear Mr. Katsigras:

The Agency has reviewed your submission in accordance with continuing registration under the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as amended, and determined the action acceptable. In summary, your request to amend your label by adding the following 2 uses: "Air Washers and Brewery Pasteurizers" and "Fruit and Vegetable Wash" is acceptable. A copy of your stamped unconditionally accepted label is enclosed.

Should you have any questions or comments concerning this letter, please contact Tom Luminello at (703) 308-8075.

Sincerely,

A handwritten signature in black ink, appearing to read "Wanda Y. Henson".

Wanda Y. Henson
Acting Product Manager 32
Regulatory Management Branch II
Antimicrobials Division (7510P)

Enclosure

{All text in brackets [xxx] is optional and may or may not be intended on a final label.}
{All text in braces {xxx} is administrative and will not appear on a final label.}

BROMIDE PLUS®

A DISINFECTANT, SANITIZER, BACTERICIDE, SLIMICIDE, ALGAECIDE, AND MOLLUSK CONTROL AGENT 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%
TOTAL100%

KEEP OUT OF REACH OF CHILDREN

CAUTION

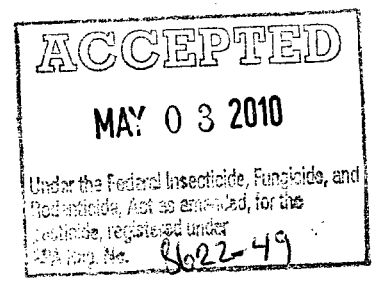
FIRST AID	
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</p> <p>YOU MAY ALSO CONTACT 1-304-746-3000 FOR EMERGENCY MEDICAL TREATMENT INFORMATION.</p>	
<p>NOTE TO PHYSICIAN</p> <p>Probable mucosal damage may contraindicate the use of gastric lavage.</p>	

See [back] [side] panels for additional precautionary statements and first aid.

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
DO NOT SHIP WITH FOODS, FEEDS, DRUGS, OR CLOTHING
KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE
WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING
REMOVE CONTAMINATED CLOTHING AND WASH BEFORE RE-USE
DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE AND DISPOSAL



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 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.

{Text for non-refillable containers.}

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.

{For containers of 5 gallons or less.} Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

{For containers with capacities greater than 5 gallons.} Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. 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 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.]

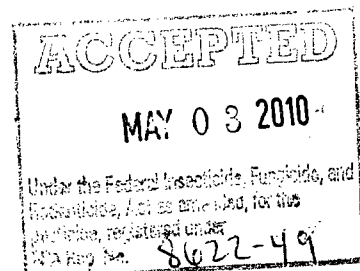
{Text for refillable containers.}

CONTAINER HANDLING: Refillable container. Refill this container with sodium bromide 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 mix tank. Fill the 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.

DIRECTIONS FOR USE

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

BROMIDE PLUS is to be used in conjunction with an oxidant such as sodium hypochlorite (12.5%), chlorine gas (99.9%), trichloro-s-triazinetrione (99.0%), sodium dichloro-s-triazinetrione (99.0%), or sodium dichloro-s-triazinetrione dihydrate (99.0%) to produce hypobromous acid. BROMIDE PLUS may be added at the system inlet water or metered into the existing sodium hypochlorite piping to form a solution of sodium hypobromite. BROMIDE PLUS 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 and controls the settlement and growth of mollusks such as the Zebra mussel (*Dreissena*) or the Asiatic clam (*Corbicula*) 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 BROMIDE PLUS 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-triazinetrione (99.0%), 2.4 - 9.5 pounds of sodium dichloro-s-triazinetrione (99.0%), or 2.7 - 10.7 pounds of sodium dichloro-s-triazinetrione dihydrate (99.0%) for each gallon of BROMIDE PLUS.

Subsequent Dose: When microbial control is evident, add sufficient BROMIDE PLUS 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 and controls the settlement and growth of mollusks such as the Zebra mussel (*Dreissena*) or the Asiatic clam (*Corbicula*) in once-through and closed-cycle fresh and seawater cooling systems. Apply BROMIDE PLUS 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 seawater influent systems, cooling water systems, wastewater treatment systems, nonpotable water systems and other process water. Apply BROMIDE PLUS with oxidant as directed.

Dosage Rates (Initial and Subsequent)

Same as for Industrial Recirculating Cooling Water Systems.

WASTEWATER

BROMIDE PLUS, when used as directed, will disinfect wastewater effectively. The amount of sodium bromide required is determined by the degree of fouling. BROMIDE PLUS 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. BROMIDE PLUS 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-triazinetrione (99.0%), 0.4 - 9.5 pounds of sodium dichloro-s-triazinetrione (99.0%), or 0.4 - 10.7 pounds of sodium dichloro-s-triazinetrione dihydrate (99.0%) for each gallon of BROMIDE PLUS. The treatment with BROMIDE PLUS 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:

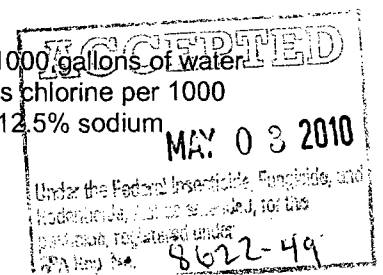
When used in conjunction with an oxidant, this product effectively controls algal, bacterial, and fungal slime and controls the settlement and growth of mollusks such as the zebra mussel (*Dreissena*) or the Asiatic clam (*Corbicula*) in influent water systems such as flow through filters, cooling ponds, 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) 1.6 to 26.5 pounds of chlorine gas (99.9%) per gallon of sodium bromide solution; or,
- 2) 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.

EPA Reg. No. 8622-49
EPA Est. No. _____

NET CONTENTS: _____ **LBS.**

MANUFACTURED FOR:
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