

# UNIBROM

UNIBROM is an effective agent for controlling algae, bacteria and slime in condensing and cooling equipment in which recirculating water is used as the cooling media and in lined reservoirs or ponds which serve as the source of boiler feedwater or cooling water. UNIBROM can also be used to control bacterial slime and algae in decorative fountains, air washers, pasteurizers, papermill influent water systems, and oilfield water recovery systems.

## Active Ingredients:

Sodium hypochlorite 7.45%  
Sodium bromide 10.28%

## Inert Ingredients:

82.27%  
TOTAL 100.00%

Total Available bromine = approximately 16% Total Available chlorine = approximately 7%

**KEEP OUT OF REACH OF CHILDREN**  
**DANGER**  
**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 eyes.
- Call a poison control center or a doctor for 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 a doctor for treatment advice.

### If swallowed:

- Call a poison control center or a doctor immediately for treatment advice.
- Do not induce vomiting.
- Do not give anything to drink.

### If inhaled:

- Move to fresh air.
- If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth-to-mouth if possible.
- Call a poison control center or a doctor for further treatment advice.

### NOTE TO PHYSICIAN:

Aspiration may cause lung damage. Probable mucosal damage may contraindicate the use of gastric lavage.

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

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS  
24 Hr Emergency Number, ChemTrec: 800-424-9300

US Patent No. 7,045,153. Other U.S. and global patents pending.

Sold By:

**CH<sub>2</sub>O, Inc. / 8820 Old Hwy. 99 SE /  
Tumwater, WA 98501**

EPA Reg. No. 63838-5-43553

## DIRECTIONS FOR USE

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

**BASIC GUIDELINES:** As a general rule, the total bromine level should be checked with a chlorine or bromine test kit at the bleed-off point furthest from the point of injection. This product is UV light sensitive and may be applied at nighttime in most systems if excessive exposure may be a limiting factor. Do not store product in clear or transparent containers.

**Initial dose:** When the system is noticeably fouled, a precleaning may be necessary. Then apply sufficient amount of UNIBROM to achieve 2.4-15 ppm total bromine (1-6.6 ppm as chlorine) or as needed to maintain microbial or algal control.

**Subsequent doses:** This product may be added using continuous or intermittent dosing methods to provide adequate control. Continuous addition methods may obtain adequate control at lower total bromine levels than suggested above. Always adjust levels of total bromine accordingly to maintain desired visual or measured microbiological control.

**INDUSTRIAL & COMMERCIAL RECIRCULATING COOLING WATER, HEAT TRANSFER SYSTEMS and PASTEURIZERS** (Such as Evaporative Condensers, Hydrostatic Sterilizers and Retorts, Dairy Sweetwater Systems, Food and Beverage Pasteurizers and Once-Through Cooling Water Systems): UNIBROM should be applied directly to the cooling water at any section of the system where sufficient mixing will occur. This product should be applied to the cooling water to provide a total bromine level of 1.0-15 ppm. UNIBROM added at a rate of two fluid ounces per 1000 gallons of water gives a dosage of approximately 3.4 ppm of total bromine, but higher dosages may occasionally be required to provide the desired bromine level throughout the systems. The total bromine level should be checked with a test kit and additional product applied until a reading of 1.0-15 ppm is obtained at the bleed-off point. Some systems may be maintained in satisfactory biological condition by applying this dosage once per day while others will respond better to dosages less than once per day. Some systems may be maintained in satisfactory biological condition by applying this dosage intermittently while others may require a continuous application.

**COOLING PONDS, LINED RESERVOIRS AND DECORATIVE FOUNTAINS:** This product may be applied at the lined reservoir, lined pond, or fountain inlet or at a location that permits complete diffusion into the water at maximum retention time before reaching the outlet. Sufficient amount of UNIBROM should be fed to maintain a total bromine level of 1.0-15 ppm in all parts of the reservoir or pond (two fluid ounces per 1000 gallons of water yields 3.4 ppm total bromine). Some systems may be maintained in satisfactory biological condition by applying this dosage once per day while others will respond better to dosages less than once per day.

**SHELL EGG PASTEURIZER WATER SYSTEMS:** (not for use California) For control of bacteria and associated slime in shell egg pasteurizer water systems add 2-6 ounces of this product per 1000 gallons of system water to achieve control. To maintain control, add a sufficient amount to maintain 1.0-9 ppm total bromine throughout the system. (Two fluid ounces per 1000 gallons of water yields 3.4 ppm total bromine).

**AIR WASHERS:** *(This product may be used only in industrial air washers and air washer systems which have mist-eliminating components.):*

For control of microorganisms in industrial air washer systems add this product to the air washer sump or chill water to provide a total bromine level of 1.0-9 ppm. Badly fouled systems must be cleaned before treatment is begun. UNIBROM at a dosage of two fluid ounces per 1000 gallons of water gives a dosage of approximately 3.4 ppm of total bromine, but higher dosages may occasionally be required to provide the desired bromine level throughout the systems. The total bromine level should be checked with a test kit and additional product applied until a reading of 1.0-9 ppm is obtained at the bleed-off point. Some systems may be maintained in satisfactory biological condition by applying this dosage once per day while others will respond better to dosages less than once per day.

**FOR PULP & PAPER MILL INFLUENT WATER SYSTEMS:** (not for use California) This product should be applied to the raw water intake prior to the filter house, economizer, or process water. Feed at a dosage sufficient to provide a total bromine level of 1.5-9 ppm. This product at a dosage of two fluid ounces per 1000 gallons of water, gives a dosage of approximately 3.4 ppm of total bromine, but higher dosages may occasionally be required to provide the desired bromine level throughout the system. Some systems may be maintained in satisfactory biological condition by applying this dosage intermittently while others may require a continuous application. This product may be used in pulp and paper influent water systems where the manufactured paper or paperboard may be used for food contact purposes.

**FOR PULP & PAPER MILL PROCESS WATER SYSTEMS:** (not for use in California). This product should be added to a paper making system at a point of uniform mixing such as the beaters, broke chest pump, save-all tank, or white water tank. Feed at a dosage sufficient to provide a total bromine level of 4-8 ppm. UNIBROM at a dosage of two fluid ounces per 1000 gallons of water gives a dosage of approximately 3.4 ppm of total bromine, but higher dosages may occasionally be required to provide the desired bromine level throughout the system. Some systems may be maintained in satisfactory biological condition by applying this dosage intermittently while others may require a continuous application. UNIBROM may be used in pulp and paper mill process water systems where the manufactured paper or paperboard may be used for food contact purposes.

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

**DANGER. CORROSIVE.** Causes irreversible eye damage. Causes skin burns. Do not get in eyes, on skin or on clothing. Wear protective eyewear such as face shield or safety glasses and rubber gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

**ENVIRONMENTAL HAZARDS:** This pesticide is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public waters unless in accordance with the requirements of a National Pollution 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 sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of EPA.

**STORAGE AND DISPOSAL** Store this product in a cool dry area, away from direct sunlight and heat to avoid deterioration. In case of spill, flood areas with large quantities of water. Product or rinsates that cannot be used should be diluted with water before disposal in a sanitary sewer. Do not reuse empty container but place in trash collection. Do not contaminate water, food, or feed by storage, disposal or cleaning of equipment.

**PESTICIDE DISPOSAL:** Pesticide disposal 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: PLASTIC CONTAINERS:** Nonrefillable container. Do not use this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Clean container promptly after emptying. Offer for recycling if available. 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 the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

**UN1760, Corrosive Liquid, n.o.s, (bromide salts), 8, PG III**