UNIBROM PLUS

FOR USE AS A FUNGICIDE, ALGICIDE, SLIMICIDE AND MICROBIOCIDE IN RECYCLING COOLING AND PROCESS WATER SYSTEMS, HEAT TRANSFER SYSTEMS, AIR WASHERS AND INDUSTRIAL SCRUBBING SYSTEMS, CONTAINERIZED PONDS AND DECORATIVE FOUNTAINS, INDUSTRIAL ONCE-THROUGH COOLING WATER SYSTEMS, PULP AND PAPER MILLS, WASTEWATER SYSTEMS.

CONTROLS BIOFILM DEPOSITS FROM PUMPS, PIPEWORK, HEAT EXCHANGERS, AND FILTERS ASSOCIATED WITH INDUSTRIAL WATER TREATMENT SYSTEMS.

ACTIVE INGREDIENT
Sodium Bromosulfamate and Sodium Chlorosulfamate .......... 11.0%
OTHER INGREDIENTS .............................................. 89.0%
TOTAL ....................................................................... 100.0%

Total Halogen (calculated as bromine = approximately 15%)
(calculated as chlorine = approximately 7%)

KEEP OUT OF REACH OF CHILDREN
DANGER / PELIGRO

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

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.

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 the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

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

(In case of emergency endangering life or property involving this product call: 800-424-9300)

EPA REG. NO.: 3377-55-43553 / EPA EST. NUMBER: 43553-WA-1

Distributed by:
CH₂O, INC.
8820 Old Hwy. 99 SE / Olympia, WA 98501

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER Corrosive. Causes irreversible eye damage and skin burns. Do not get in eyes on skin or on clothing. Wear protective eyewear (chemical goggles or face shield), protective clothing and rubber gloves resistant to chemical permeation. Harmful if swallowed, or absorbed through the skin. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing separately 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 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 sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA. Apply this pesticide only as specified on the label.

PHYSICAL AND CHEMICAL HAZARDS
UNIBROM PLUS is not flammable. This product is strongly basic and an oxidizing agent. Avoid contact with organic materials such as alcohols and aldehydes, strong reducing agents, strong oxidizers, acids and ammonia. Avoid contact with metal fixtures. Avoid contact with common metals such as steel, aluminum, iron and copper. Use of incompatible materials can promote the exothermic decomposition of the product. In extreme cases, this could result in vigorous gas formation and or pressurization of storage containers.

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

When used as directed, UNIBROM PLUS effectively controls bacteria, fungi, algae and slime in commercial and industrial water systems. UNIBROM PLUS can also be used to control biofilm deposits from pumps, pipework, heat exchangers, and filters associated with industrial water treatment systems.

UNIBROM PLUS may be added at system inlet water or other locations in the system at a point of uniform mixing where the treated water will be circulated or mixed throughout the system. Badly fouled systems should be cleaned before treatment begins. The product may be applied to the system either continuously or intermittently (slug dose) or as needed to obtain the recommended total bromine level. The frequency of feeding and dosage rate will depend upon the severity of the problem.

INITIAL DOSES: When the system is noticeably fouled, apply sufficient UNIBROM PLUS to achieve a total bromine level of 4-10 ppm or as needed to maintain control. Applying 4 fluid ounces to 1000 gallons of water yields a maximum of 6.4 ppm of total bromine.

SUBSEQUENT DOSES: When microbial control is evident, apply sufficient UNIBROM PLUS to achieve a total bromine level of 4-10 ppm or as needed to maintain control.

Treatment levels of UNIBROM PLUS can best be measured with test kits for either bromine or chlorine. Testing should be made immediately after drawing water samples from the system. Use test kits according to directions. When a bromine test kit is used, results can be read directly as ppm bromine. When a chlorine test kit is used, results can expressed in terms of bromine by multiplying chlorine values by the conversion factor 2.25.
**RECIRCLATING COOLING AND PROCESS WATER SYSTEMS**
When used as directed, UNIBROM PLUS effectively controls bacteria, fungi, algae and slime in commercial and industrial cooling towers, heat exchange water towers, evaporative condensers, utility plant cooling systems, industrial water scrubbing systems and influent systems such as flow through filters, lagoons, etc.

**HEAT TRANSFER SYSTEMS**
For control of bacteria and fungi in heat transfer systems such as hydrostatic sterilizers and retorts, pasteurizers and warmers, and batch and continuous cookers.

**AIR WASHERS AND INDUSTRIAL SCOURING SYSTEMS**
Use only in industrial air washer systems which have mist-eliminating components. For control of microorganisms in industrial air washer or scrubbing systems add sufficient UNIBROM PLUS to the air washer sump or chill water. The UNIBROM Plus should be applied to achieve a total bromine level of 4-10 ppm or as needed to maintain control. Sampling of the treated systems should be at the bleed-off point and total bromine residuals determined with an appropriate test kit.

**CONTAINERIZED PONDS AND DECORATIVE FOUNTAINS**
UNIBROM PLUS may be applied on the pond or fountain inlet or at a location that permits complete diffusion into the water at maximum retention time before reaching the outlet. Sufficient UNIBROM PLUS should be fed to maintain a total bromine level of 4-10 ppm in all parts of the pond or fountain, or as needed to maintain control.

**INDUSTRIAL ONCE-THROUGH COOLING WATER SYSTEMS**
When used as directed UNIBROM PLUS effectively controls bacteria, fungi, algae and slime in once through and closed-cycle fresh and seawater cooling systems. Apply UNIBROM PLUS to the system inlet water or before any other contaminated area in the system.

**PULP AND PAPER MILLS**
When used as directed, UNIBROM PLUS effectively controls algal, bacterial, and fungal slime in pulp and paper mill fresh and sea water influent water systems, cooling water systems, wastewater treatment systems, nonpotable water systems, whitewater systems and other process water. The product may be applied to the system either continuously or intermittently (slug dose) or as needed to obtain the recommended total bromine level.

**DOSAGE RATES**
Add sufficient UNIBROM PLUS to achieve a residual bromine level of 4-10 ppm or as needed to maintain control of the system. Feed UNIBROM PLUS directly into the water to be treated. Be sure rapid mixing of the treated water, and UNIBROM PLUS is achieved. Pump manufacturers can recommend the appropriate materials of construction and capacity for a pump to feed UNIBROM PLUS.

**WASTEWATER**
When used as directed, UNIBROM PLUS controls microorganisms in wastewater systems. The quantity of UNIBROM PLUS required varies with the degree of fouling. Add sufficient UNIBROM PLUS to achieve residual bromine levels of 3 - 10 ppm, or as needed to maintain control, when measured approximately 5 minutes after treatment. Applying 4 fluid ounces to 1000 gallons of water yields a maximum of 6.4 ppm of total bromine. Higher dosages may be necessary depending upon the system. The product may be applied to the system either continuously or intermittently (slug dose) or as needed to obtain the recommended total bromine level. Depending on the construction of the wastewater system, UNIBROM PLUS may be effectively added to one or more different locations in the system. Frequently the compound is added to wastewater receiving secondary treatment at a contact tank preceding the effluent discharge or at the influent of the final clarifier.

**STORAGE AND DISPOSAL**
Do not contaminate water, food, or feed by storage, disposal or cleaning of equipment.

**STORAGE**
Avoid freezing, excessive heat or exposure to light, especially direct sunlight. If heating is necessary to prevent freezing, care must be taken to prevent overheating. The average product temperature should be maintained below 110 degrees F. Temperature monitoring is recommended. At elevated temperatures, self-heating can lead to vigorous gas generation and over-pressurization of storage containers.

**STORAGE CONTAINER**
Vented and opaque containers: The product should be stored in vented containers as pressure can build-up in the headspace (nitrogen). To maximize product shelf life, store in opaque containers in a cool, dry, well-ventilated area.

**PESTICIDE DISPOSAL**
Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinseate 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**

- **(5 gallon) Nonrefillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Offer for reconditioning if appropriate. Triple rinse as follows: Empty remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recapture. Shake for 10 seconds. Pour rinseate into application equipment or a mix tank or store rinseate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

- **(30 and 55 gallon drums) Nonrefillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Offer for reconditioning if appropriate. Triple rinse as follows: Empty remaining contents into application equipment or a mix tank. Fill the container 1/4 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. Turn the container over onto its other end and tip it back and forth several times. Empty the rinseate into application equipment or a mix tank or store rinseate for later use or disposal. Repeat this procedure two more times.

- **(275-300 gallon tote or [GC]) Nonrefillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Offer for reconditioning if appropriate. Triple rinse as follows: Empty the remaining contents from this container into application equipment or a 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 rinseate into application equipment or rinseate collection system. Repeat this rinsing procedure two more times.

**CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.**
(Halogenated Complex, Sodium Hydroxide), 8, UN3266, PG III

**NET CONTENTS:**

- Lbs/ Kgs

**LOT NUMBER:**

(Pg. 2, 5/10)