

PA 32 5122-76 15 113
MAY 20 1991

Mr. Dennis L. McPadden
Great Lakes Chemical Corporation
P.O. Box 2200
West Lafayette, IN 47905

Dear Mr. McPadden:

Subject: Adding Mollusca Control and Once Through Cooling Tower Use
WTA Sodium Bromide
EPA Registration No. 5785-66
Sodium Bromide
EPA Registration No. 5785-67
Liquibrom 3800
EPA Registration No. 5785-76 ✓
Liquibrom 100
EPA Registration No. 5785-78
Liquibrom 4300
EPA Registration No. 5785-79
WTA 1500
EPA Registration No. 5785-80
WTA 4000
EPA Registration No. 5785-81
Your Amendment Dated April 11, 1991

BEST AVAILABLE COPY

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable. A stamped copy is enclosed for your records.

Sincerely yours,



Walter C. Francis
Product Manager (32)
Antimicrobial Program Branch
Registration Division (U7505C)

Enclosure *Profile 5-89*
62731:1:A-4:Prinyl:L32-07:KEVRIC:05/28/91:06/24/91:aw:wo:aw

LIQUIBROM 3800

FOR USE AS A DISINFECTANT, SANITIZER, BACTERICIDE,
SLIMICIDE, ALGICIDE, AND MOLLUSK CONTROL AGENT
IN RECIRCULATING COOLING WATER SYSTEMS, BREWERY
PASTEURIZING SYSTEMS, AIR WASHERS, ONCE THROUGH COOLING WATER
AND WASTEWATER TREATMENT SYSTEMS, AND PULP AND PAPER MILLS

Active Ingredient:

Sodium bromide 38%

Other Ingredients 62%

TOTAL 100%

KEEP OUT OF REACH OF CHILDREN

WARNING

STATEMENT OF PRACTICAL TREATMENT

Eye Contact: Flush eyes with cold water for at least 15 minutes. If irritation persists, seek medical attention immediately.

Skin Contact: Prolonged contact can produce skin irritation. If skin contact occurs, wash with cold water for 15 minutes.

SEE ADDITIONAL PRECAUTIONARY STATEMENTS ON SIDE PANEL

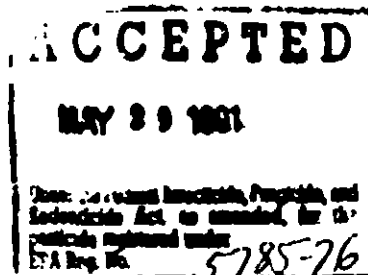
NET WEIGHT: _____

EPA REG. NO. 5785-76

LOT NUMBER: _____

EPA EST. NO. 5785-AR-01

GREAT LAKES CHEMICAL CORPORATION
P.O. Box 2200
WEST LAFAYETTE, IN 47906



HAZARDS TO HUMANS
skin exposure. Avoid contact
before reuse.

ENVIRONMENTAL HAZARD
accordance with an NPD

PHYSICAL AND CHEMICAL
by other materials, hydrochloric
breathing apparatus.

It is a violation of Federal

STORAGE. Keep product in a
ventilated area. Product should be
DISPOSAL. Wastes resulting from
approved waste disposal methods,
reconditioning, or puncturing in
state and local authorities.

RECIRCULATING COOLING WATER
PASTEURIZERS. When used to control
fungal slimes and controls
or the Asiatic clam (*Corbicula*)
as flow through filters; heat

DOSE RATES. Add LIQUIBROM
ratio. For example:

- 1) 1.5 to 24.5 lbs. of sodium bromide
- 2) 1.2 to 19.0 lbs. of sodium bromide

Initial Dose: When the system is
per 1000 gallons of water
lbs. gas chlorine per 1000
gallons of 12.5% sodium hypochlorite

Subsequent Dose. When microbial control is evident, add 0.0002 to 0.026 gallons of LIQUIBROM 3800 per 1000 gallons of water contained in the system, and oxidize with either gas chlorine (0.004 to 0.040 lbs. 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 contained water).

ONCE-THROUGH COOLING WATER AND WASTE WATER TREATMENT SYSTEMS. When used as directed, LIQUIBROM 3800 effectively controls algae, 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 fresh and sea water cooling systems and disinfects secondary and tertiary wastewater treatment systems.

DOSAGE RATES. Add LIQUIBROM 3800 to the system at a 0.125 to 2.0 sodium bromide/oxidant mole ratio. For example:

- 1) 1.5 to 24.5 pounds of chlorine gas (99.9%) per gallon of sodium bromide solution;
- 2) 1.2 to 19.6 gallons sodium hypochlorite (12.5% available chlorine) per gallon of sodium bromide solution.

Initial Dose. When the system is noticeably fouled, add 0.0009 to 0.05 gallons of LIQUIBROM 3800 per 1000 gallons of water contained in the system, and oxidize with either gas chlorine (0.023 to 0.076 lbs. gas chlorine per 1000 gallons contained volume), or sodium hypochlorite solution (0.02 to 0.06 gallons 12.5% sodium hypochlorite solution per 1000 gallons contained volume).

Subsequent Dose. When microbial control is evident, add 0.0003 to 0.05 gallons LIQUIBROM 3800 per 1000 gallons of water contained in the system, and oxidize with either gas chlorine (0.008 to 0.076 lbs. gas chlorine per 1000 gallons contained volume), or sodium hypochlorite solution (0.006 to 0.06 gallons 12.5% sodium hypochlorite solution per 1000 gallons contained volume).

PULP AND PAPER MILLS. When used as directed, Liquibrom 3800 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, and other process water.

Dosage Rates. Add LIQUIBROM 3800 to the system at a 0.125 to 2.0 sodium bromide/oxidant mole ratio. For example:

- 1) 1.5 to 24.5 pounds of chlorine gas (99.9%) per gallon of sodium bromide solution;
- 2) 1.2 to 19.6 gallons of sodium hypochlorite (12.5% available chlorine) solution per gallon of sodium bromide solution.

Add sufficient Liquibrom 3800 and oxidize with either gas chlorine or sodium hypochlorite solution to achieve a residual bromine level of 0.5 to 5 ppm or as needed to maintain control of the system. Liquibrom 3800 can be added whenever chlorination is applied.

Feed LIQUIBROM 3800 either before or after the oxidant injection point. Be sure rapid mixing of the treated water, LIQUIBROM 3800 and manufacturers can recommend the appropriate materials of construction. Do not feed LIQUIBROM 3800 or sodium hypochlorite solution. If used as the primary disinfectant, it should be handled and used only in accordance with practices recommended in the Chlorine Institute, Inc., New York. Use chlorine gas only in well-ventilated areas.

Treatment levels of LIQUIBROM 3800 and oxidant can best be measured with test kits or chlorine. Tests should be made immediately after drawing water samples according to directions.

1. When a bromine test kit is used, results can be read directly.
2. When a chlorine test kit is used, results can be expressed in bromine by multiplying chlorine values by the conversion factor 2.1.

LiquiBrom 3800 weighs 11.6 lbs/gal at 70° F.

NOTE: Seller warrants that this product complies with the specifications; makes no other warranties; and disclaims all other warranties, expressed or implied. Any liability for consequential damages, or failure under this label shall be limited to the amount of the purchase price.