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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

NOV 20 2008

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

Anne M. Oxford  
Albemarle Corporation  
451 Florida Street  
Baton Rouge, LA. 70801-1765

Subject: Application for Amendment dated: August 13, 2008  
XtraBrom 111 Biocide  
EPA Registration 3377-62

Dear Ann:

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 to be acceptable. In summary, the following changes have been approved as amendments to your label:

- updated Precautionary Statements and the Physical and Chemical Hazards;
- the storage and disposal statements have been updated;
- reorganized common use directions by consolidating them under Industrial Uses;

A copy of your stamped label is enclosed. If you have any questions concerning this letter, please contact Tom Luminello by telephone, (703) 308-8075, or by e-mail at [luminello.tom@epa.gov](mailto:luminello.tom@epa.gov).

Sincerely,

Emily H. Mitchell, Product Manager 32  
Regulatory Management Branch II  
Antimicrobials Division (7510-P)

# XtraBrom<sup>®</sup> 111 Biocide

A Fungicide, Algicide, Slimicide, and Microbiocide for Wastewater, Commercial and Industrial Recirculating Cooling Water Systems, Industrial Once-Through Cooling Water Systems, Brewery Pasteurizers, Pulp and Paper Mill Systems, Air Washer Systems, Air and Gas Scrubber Systems, and Decorative Fountains. Controls Biofilm Deposits from Pumps, Pipework, Heat Exchanges, and Filters Associated with Industrial Water Treatment Systems.

**Active Ingredient**

1,3-dibromo-5,5-dimethylhydantoin.....	99.4%
<b>Other Ingredients</b> .....	<u>0.6%</u>
<b>TOTAL</b> .....	100.0%

Available bromine: 111%  
(expressed as chlorine: 49%)

**KEEP OUT OF REACH OF CHILDREN  
DANGER**

**FIRST AID**

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

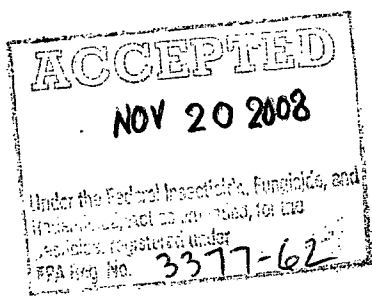
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

In case of emergency endangering life or property involving this product,  
call collect (225) 344-7147

EPA Reg. No. 3377-62  
EPA Est. \_\_\_\_\_

ALBEMARLE CORPORATION  
451 Florida Street  
Baton Rouge, LA 70801

Net Contents \_\_\_\_\_  
Batch Number: \_\_\_\_\_



**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 chemical goggles and face shield, protective clothing and rubber gloves resistant to chemical permeation. May be fatal if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Harmful if absorbed through skin. Harmful if inhaled. Avoid breathing dust. 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.

**PHYSICAL AND CHEMICAL HAZARDS**

Strong oxidizing and brominating agent. Mix only with water. Avoid contact with reducing agents, acids, ammonia-containing products, organic materials (such as aldehydes and alcohols) and other oxidizing agents (such as calcium hypochlorite). Do not add this product to any dispensing device containing remnants of any other product. Such use may cause a violent reaction leading to fire or explosion. Contamination with moisture or other chemicals may start a chemical reaction with generation of heat, liberation of hazardous gases and possible generation of fire and explosion. In case of contamination or decomposition, do not reseal container. If possible, isolate container in open air or well-ventilated area. Flood with large volumes of water, if necessary.

**DIRECTIONS FOR USE**

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

**FOR INDUSTRIAL USE ONLY**

For use as a Fungicide, Algicide, Slimicide, and Microbiocide for Wastewater, Commercial and Industrial Recirculating Cooling Water Systems, Industrial Once-Through Cooling Water Systems, Brewery Pasteurizers, Pulp and Paper Mill Systems, Air Washer Systems, Air and Gas Scrubber Systems, and Decorative Fountains.

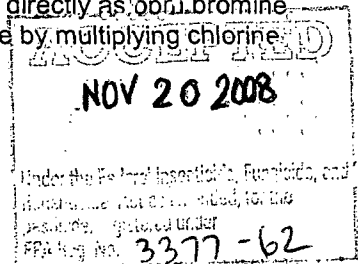
XtraBrom 111 Biocide can also be used to control biofilm deposits from pumps, pipework, heat exchangers, and filters associated with industrial water treatment systems.

XtraBrom 111 Biocide 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 DOSE:** When the system is noticeably fouled add sufficient XtraBrom 111 Biocide to achieve a residual bromine level of 0.5 - 5 ppm or as needed to maintain control. Applying 1/2 ounce to 1,000 gallons of water yields a theoretical average 4 ppm of available bromine. Repeat until control is achieved.

**SUBSEQUENT DOSE:** When microbial control is evident apply sufficient XtraBrom 111 Biocide to achieve a residual bromine level of 0.5 - 5 ppm or as needed to maintain control. The product may be added either continuously or intermittently or as needed to obtain the required residual.

Treatment levels of XtraBrom 111 Biocide can best be measured with test kits for either bromine or chlorine. Tests 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 be expressed in terms of bromine by multiplying chlorine values by the conversion factor 2.25.



Under the Federal Insecticide, Fungicide, and  
Rodenticide Act (21 U.S.C. 241-245),  
this product is registered under  
EPA Reg. No. 3377-62

**RECIRCULATING COOLING WATER SYSTEMS**

When used as directed XtraBrom 111 Biocide effectively controls bacteria, fungi and algae and slimes in commercial and industrial recirculating cooling water systems servicing heat exchangers, evaporators, condensers, dairy sweetwater systems, hydrostatic sterilizers and retorts, cooling canals, tunnel coolers and warmers, closed and once through cooling systems and other equipment requiring cooling. It is also effective in controlling various microbiological growth formation in influent systems such as lagoons or flow-through filter systems, industrial wet scrubber systems and brewery pasteurizers. Not for use on any food contact surface.

**INDUSTRIAL ONCE-THROUGH COOLING WATER SYSTEMS**

When used as directed XtraBrom 111 Biocide effectively controls bacteria, fungi, algae and slimes in once-through and closed-cycle fresh and sea water cooling systems.

**AIR WASHER SYSTEMS**

To control bacteria fungi and algae in industrial air washer systems, add to the air washer sump or chill water or coil spray water to insure uniform mixing.

**AIR AND GAS SCRUBBER SYSTEMS**

To control bacteria, fungi and algae in these water systems, XtraBrom 111 Biocide should be added to the system at a convenient point of mixing.

**WASTE WATER**

When used as directed XtraBrom 111 Biocide controls bacteria in wastewater effluent. The quantity of XtraBrom 111 Biocide required varies with the degree of fouling. Add sufficient XtraBrom 111 Biocide to achieve residual bromine levels of 0.5 - 5 ppm. Applying 1/2 ounce to 1,000 gallons of water yields a theoretical average of 4 ppm of available bromine. Higher dosages may be necessary depending upon the system.

Depending on the construction of the wastewater system XtraBrom 111 Biocide 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.

**PULP AND PAPER MILLS**

When used as directed XtraBrom 111 Biocide effectively controls algal, bacterial and fungal slime in pulp and paper mill fresh and sea water influent water system, cooling water systems, wastewater treatment systems, nonpotable water systems and other process water.

**DOSAGE RATES:** Add sufficient XtraBrom 111 Biocide to achieve residual bromine level of 1 - 5 ppm or as needed to maintain control of the system. Do not exceed 1.0 kilogram (kg) per 1,000 kg of dry weight fiber in paper and paperboard components that contact food.

Feed XtraBrom 111 Biocide directly into the water to be treated. Be sure rapid mixing of the treated water and XtraBrom 111 Biocide is achieved. Pump and feeder manufacturers can recommend the appropriate materials of construction and capacity for a pump or feeder to feed XtraBrom 111 Biocide.

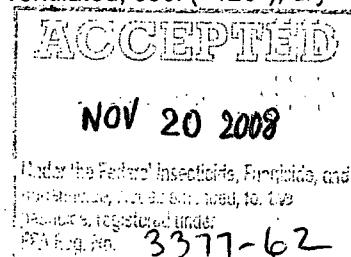
**DECORATIVE FOUNTAINS**

To maintain fountain free and clear of algae add sufficient XtraBrom 111 Biocide to achieve and maintain 0.5 - 5 ppm or as needed to obtain control. Applying 1/2 ounce to 1,000 gallons of water yields a theoretical average of 4 ppm of available bromine.

**STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage, disposal or cleaning of equipment.

**STORAGE:** Keep container tightly closed when not in use. Store in a well-ventilated, cool (<120°), dry area away from heat and flame.



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 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: [bag or supersack] Offer for recycling, if available. Completely empty bag/super sack. If possible, shake bag/super sack to remove as much residue as possible. Dispose of empty bag/super sack in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

CONTAINER DISPOSAL: [50 pound pail] 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 and recap. Shake for 10 seconds. Pour rinsate into application equipment or a 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.

