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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

APR 11 2001

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

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

SUBJECT: January 25, 2001 letter
Sanibrom 43 Biocide
EPA Registration 3377-73

Dear Ms Oxford:

The amendment referred to above, submitted in connection with registration under section 3(c)(7)(A) of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable provided that you:

1. Modify the First Aid section by adding the following:
IF SWALLOWED: 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 by the poison control center of doctor.
2. In the use sites, change "When used as directed..." to "When used **in conjunction with an oxidant**..."
3. In the use sites where dosage rates of the oxidant are described add **or.** at end of 1).
4. On page 5, change the 2 phrases that read "to clean biofilm" to "to **control** biofilm".

A stamped copy of your label is enclosed as well as a copy of the review of your revised Confidential Statement of Formula. Please provide a revised finished label for our files. If you have questions regarding this letter, please contact Tom Luminello of my staff at (703) 308-8075.

Sincerely yours,

for Robert S. Brennis
Product Manager (32)
Regulatory Management Branch II
Antimicrobial Division (7510-C)

Enclosure

SANIBROM 43 BIOCIDE

FOR USE AS A SANITIZER, BACTERICIDE, SLIMICIDE, ALGICIDE , AND MOLLUSK CONTROL AGENT IN RECIRCULATING COOLING WATER SYSTEMS, BREWERY PASTEURIZING SYSTEMS, AIR WASHERS, ONCE THROUGH COOLING WATER, DRIP IRRIGATION SYSTEMS, WASTEWATER TREATMENT SYSTEMS, AND PULP AND PAPER MILLS.
CONTROLS BIOFILM DEPOSITS FROM PUMPS, PIPEWORK, HEAT EXCHANGERS, AND FILTERS ASSOCIATED WITH INDUSTRIAL WATER TREATMENT SYSTEMS.

ACTIVE INGREDIENT:	
Sodium bromide	43.0%
INERT INGREDIENT:	57.0%
TOTAL	100.0%

KEEP OUT OF REACH OF CHILDREN

CAUTION

Prolonged eyes and skin contact may cause severe irritation.

FIRST AID

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-25 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 ON SKIN: 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: Call poison control center or doctor immediately for treatment advice. Have a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor.

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

ALBEMARLE® CORPORATION
451 Florida Street
Baton Rouge, LA 70801

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

EPA Reg. No. 3377-~~74~~ 73
EPA Est. 3377-AR-1, 42403-TX-1

ACCEPTED
WITH COMMENTS
IN EPA Letter Dated
APR 11 2001

Net Contents.....

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PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if absorbed through skin. Avoid contact with skin and clothing. Wash with soap and water after handling. Remove contaminated clothing and wash before reuse. Do not get into eyes.

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 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.

PHYSICAL AND CHEMICAL HAZARDS

SANIBROM 43 BIOCIDE is not flammable. However, in fires fueled by other materials, hydrogen bromide or bromine may be released. In case of fire, wear self-contained breathing apparatus.

STORAGE AND DISPOSAL

STORAGE: Keep product in tightly closed original container when not in use. Store in well ventilated, dry area. Product should be stored at 50° F or above.

PESTICIDE DISPOSAL: Do not contaminate water, food or feed by storage or disposal. Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Triple rinse the container (or equivalent), then offer for recycle, reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

ACCEPTED
with COMMENTS
In EPA Letter Dated:
APR 11 2001
Under Federal Insecticide, Fungicide, Rodenticide Act as amended, for the pesticide, named in EPA Reg. No.
3377-73

DIRECTIONS FOR USE

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

RECIRCULATING COOLING WATER SYSTEMS, INCLUDING AIR WASHERS AND BREWERY PASTEURIZERS. When used ~~as directed~~ in conjuction with an oxidant, SANIBROM 43 BIOCIDE 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 commercial and industrial cooling towers; influent water systems such as flow through filters; heat exchange water systems; and industrial water scrubbing systems.

DOSAGE RATES: Add SANIBROM 43 BIOCIDE to the system at a 0.125 to 2.0 sodium bromide/oxidant mole ratio. For example:

1. 1.8 to 29.0 pounds of chlorine gas (99.9%) per gallon of sodium bromide solution; or, *
2. 1.4 to 23.2 gallons sodium hypochlorite (12.5% available chlorine) solution per gallon of sodium bromide solution.

Initial Dose: When the system is noticeably fouled, add 0.0003 to 0.022 gallons of SANIBROM 43 BIOCIDE per 1000 gallons of water contained in the system and oxidize with either gas chlorine (0.008 to 0.042 lbs. gas chlorine per 1000 gallons of contained water), or sodium hypochlorite solution (0.007 to 0.034 gallons of 12.5% sodium hypochlorite solution per 1000 gallons of contained water).

Subsequent Dose: When microbial control is evident, add 0.00014 to 0.022 gallons of SANIBROM 43 BIOCIDE per 1000 gallons of water contained in the system, and oxidize with either gas chlorine (0.004 to 0.042 lbs. gas chlorine per 1000 gallons of contained water), or sodium hypochlorite solution (0.003 to 0.034 gallons of 12.5% sodium hypochlorite solution per 1000 gallons of contained water).

ONCE-THROUGH COOLING WATER AND WASTEWATER TREATMENT SYSTEMS. When used ~~as directed~~ in conjunction with an oxidant, SANIBROM 43 BIOCIDE effectively controls algae, bacterial and fungal slimes and the growth and settlement of mollusks such as zebra mussel (*Dreissena*) or the Asiatic clam (*Corbicula*) in once-through fresh and sea water cooling systems as well as in secondary and tertiary wastewater treatment systems.

DOSAGE RATES: Add SANIBROM 43 BIOCIDE to the system at a 0.125 to 2.0 sodium bromide/oxidant mole ratio. For example:

1. 1.8 to 29.0 pounds of chlorine gas (99.9%) per gallon of sodium bromide solution; or, *
2. 1.4 to 23.2 gallons sodium hypochlorite (12.5% available chlorine) solution per gallon of sodium bromide solution.

Initial Dose: When the system is noticeably fouled, add 0.0007 to 0.044 gallons of SANIBROM 43 BIOCIDE per 1000 gallons of water contained in the system, and oxidize

ACCEPTED
For General Use
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with either gas chlorine (0.02 to 0.08 lbs. gas chlorine per 1000 gallons of contained volume), or sodium hypochlorite solution (0.02 to 0.07 gallons of 12.5% sodium hypochlorite solution per 1000 gallons of contained volume).

Subsequent Dose: When microbial control is evident, add 0.0003 to 0.044 gallons of SANIBROM 43 BIOCIDE per 1000 gallons of water contained in the system, and oxidize with either gas chlorine (0.008 to 0.08 lbs. gas chlorine per 1000 gallons of contained volume), or sodium hypochlorite solution (0.006 to 0.07 gallons of 12.5% sodium hypochlorite solution per 1000 gallons of contained volume).

DRIP IRRIGATION SYSTEMS: For the control of algal and microbial slimes in drip irrigation distribution lines, preventing plugging and allowing uniform distribution of water.

Dosage rates: Add this product to the system at a 0.125 to 2.0 sodium bromide/oxidant mole ratio. For example:

1. 1.8 to 29 pounds of chlorine gas (99.9%) per gallon of sodium bromide solution; or, *
2. 1.4 to 23.2 gallons of sodium hypochlorite (12.5% available chlorine) per gallon of sodium bromide solution.

Add sufficient amount of this product and oxidize with either gas chlorine or sodium hypochlorite solution to achieve a residual bromine level of 0.2 to 5 ppm as needed to maintain control of the system. For 0.2 ppm bromine add 0.000464 gallons of this product mixed with 0.0016 gallons of 12.5% bleach or 0.00168 pounds of gas chlorine per 1,000 gallons of water treated. This product can be added whenever chlorination is applied.

MEASUREMENT OF BROMINE RESIDUALS. Treatment levels of this product can be measured with a test kit. Bromine residuals should be measured in water taken from the treated system while it is running. Tests should be made immediately after drawing water samples at the emitter farthest from the injection pump.

in conjuction with an oxidant

PULP AND PAPER MILLS. When used as ~~directed~~, SANIBROM 43 BIOCIDE effectively * controls 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 SANIBROM 43 BIOCIDE to the system at a 0.125 to 2.0 sodium bromide/oxidant mole ratio. For example:

1. 1.8 to 29.0 pounds of chlorine gas (99.9%) per gallon of sodium bromide solution; or, *
2. 1.4 to 23.2 gallons sodium hypochlorite (12.5% available chlorine) solution per gallon of sodium bromide solution.

Add sufficient SANIBROM 43 BIOCIDE 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. SANIBROM 43 BIOCIDE can be added whenever chlorination is applied.

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Feed SANIBROM 43 BIOICIDE either before or after the oxidant injection point into the water to be treated. Be sure rapid mixing of the treated water, SANIBROM 43 BIOICIDE and oxidant is achieved. Pump manufacturers can recommend the appropriate materials of construction and capacity for a pump to feed SANIBROM 43 BIOCIDE or sodium hypochlorite solution. If used as the oxidant, chlorine gas must be handled and used only in accordance with practices recommended in The Chlorine Manual published by the Chlorine Institute, Inc., New York. Use chlorine gas only in well ventilated areas.

Treatment levels of SANIBROM 43 BIOCIDE and oxidant 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.

1. When a bromine test kit is used, results can be read directly as ppm bromine.
2. 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.

control

SANIBROM 43 BIOCIDE can also be used to clean biofilm deposits from pumps, pipework, heat exchangers, and filters associated with industrial water treatment systems.

DOSAGE RATES:

change to "control"

When the system is noticeably soiled, apply sufficient SANIBROM 43 BIOCIDE and chlorine or sodium hypochlorite to achieve a residual bromine level of 1.0-3.0 ppm or as needed to clean biofilm soil. A 0.25 to 1.0 mole ratio of sodium bromide to oxidant is recommended. Typically, the recommended mole ratio may be achieved by using 1.6 - 6.4 lbs of chlorine gas (99.9%) or 1.4 - 5.6 gallons NaOC1 (12.5%) for each gallon of SANIBROM 43 BIOCIDE.

SANIBROM 43 BIOCIDE weights 12.2 lbs/gal at 70° F

WARRANTY

Seller makes no warranty expressed or implied concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and/or handling of this material when such use and/or handling is contrary to label instructions.

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in EPA Letter Dated:
APR 11 2001

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