

74655-21

1/24/2012

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

JAN 24 2012

Kate Ingram  
Hercules Incorporated  
7910 Baymeadows Way  
Jacksonville, FL 32256

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

Subject: Biosperse 244  
EPA Registration No.: 74655-21  
Application Date: 11/07/2011  
Receipt Date: 11/10/2011

Dear Ms. Ingram:

The following amendment submitted in connection with registration under FIFRA, as amended, is acceptable with conditions.

**Proposed Amendment**

- Revision to remove redundant labeling statements
- Addition of clarification statements
- Addition of six use sites

**Conditions**

Revise the label as follows:

1. As per PR Notice 2001-5, Mandatory Labeling, delete the term "should" and state "must" in the 2<sup>nd</sup> sentence of the Recirculating Water Cooling Towers and Evaporative Condensers section and in the 2<sup>nd</sup> sentence of the Enhanced Oil Recovery Systems section.

**General Comments**

A stamped label with conditions is enclosed for your records. Submit three (3) copies of your final printed label before distributing or selling the product bearing the revised labeling.

Should you have any questions or comments concerning this letter, you may contact me by telephone at (703) 308-6416 or by e-mail at [campbell-mcfarlane.jacqueline@epa.gov](mailto:campbell-mcfarlane.jacqueline@epa.gov) or Jaclyn Carl by telephone at (703) 347-0213 or by e-mail at [carl.jaclyn@epa.gov](mailto:carl.jaclyn@epa.gov).

When submitting information or data in response to this letter, a copy of this letter should accompany the submission to facilitate processing.

Sincerely,  
*Jaclyn Carl*  
Jacqueline McFarlane *JM*  
Product Manager (34)  
Regulatory Management Branch II  
Antimicrobials Division (7510P)

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Biosperse 244

# BIOSPERSE™ 244 Microbiocide

ACTIVE INGREDIENT	
2,2-dibromo-3-nitrilopropionamide.....	20.0%
INERT INGREDIENTS*.....	
TOTAL.....	100.0%

\*Inert ingredients includes solubilizing and dispersing agents.

## 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. Call a poison control center or doctor for treatment advice.
- IF INHALED** Move the 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 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** 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.

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

For emergency information on BIOSPERSE 244, call the National Pesticides Information Center at 1-800-858-7378, 6:30AM to 4:30PM Pacific Time (PT), seven days a week. During other times, call the poison control center 1-800-222-1222.

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

IN CASE OF EMERGENCY CALL 1-800-ASHLAND

EPA Reg. No. 74655-21  
Est. No. 74655-GA-001  
Est. No. 74655-TX-1

**ACCEPTED  
with COMMENTS  
in EPA Letter Dated:**

**JAN 24 2012**

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act as  
amended, for the pesticide,  
registered under EPA Reg. No.

**74655-21**

FOR INDUSTRIAL USE

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PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER**

**CORROSIVE:** Causes irreversible eye damage. May be fatal if inhaled or swallowed. Causes skin irritation. Do not get in eyes, on skin or on clothing. Do not breathe dust. When loading or handling wear protective eyewear (goggles or face shield), long-sleeved shirt and long pants, socks, shoes, chemically resistant gloves and a NIOSH approved respirator. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove and wash contaminated separated from other before reuse.

**PERSONAL PROTECTIVE EQUIPMENT**

Applicators and other handlers must wear:

- \* coveralls over long-sleeved shirt and long pants,
  - \* socks and chemical-resistant footwear,
  - \* goggles or face shield, and
  - \* chemical resistant gloves (such as barrier laminate or butyl nitrile/neoprene rubber, PVC, or viton).
- \*NIOSH approved respirator

**ENGINEERING CONTROLS**

When handlers use closed metering systems the handler requirements may be reduced or modified to long-sleeve shirt, long pants, shoes and socks.

**USER SAFETY INSTRUCTIONS**

Users must wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Users must remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users must remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish and invertebrates. 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. Secondary biological treatment of DBNPA effluent is required for all uses except for use in secondary oil recovery systems. 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.

**APPLICATION RESTRICTIONS**

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

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Biosperse 244

**DIRECTIONS FOR USE**

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

The dosage of BIOSPERSE™ 244 required for any specific application will depend upon a number of factors including: the nature and extent of microbiological contamination, the type and volume of the system being treated, the degree of control desired, and retention time in the system. Where necessary, your Ashland Representative will arrange for microbiological and chemical analysis, so that technical advice can be given concerning specific site problems.

**RECIRCULATING WATER COOLING TOWERS AND EVAPORATIVE CONDENSERS**

Dosages for industrial recirculating water cooling towers will depend on the condition of the system prior to the initiation of treatment. Heavily contaminated systems should be cleaned prior to treatment. Apply BIOSPERSE™ 244 to the cleaned system or when growth is first noticed according to the following schedule:

**BACTERIAL AND FUNGAL CONTROL  
INTERMITTENT OR SLUG FEED METHOD**

Initial Dose: When the system is noticeable fouled, add 0.6 to 1.2 fluid ounces (6 – 12 ppm) BIOSPERSE™ 244 per each 1000 gallons of water in the system. This dose may be repeated once, twice, or three times weekly or as required to control the growth of slime forming organisms.

Subsequent Dose: When microbial control is evident, add 0.3 to 1.2 fluid ounces (3 – 12 ppm) BIOSPERSE™ 244 per each 1000 gallons of water in the system every four days, or as needed to maintain good control.

**CONTINUOUS FEED METHOD**

Initial Dose: When the system is noticeable fouled, add 0.6 to 1.2 fluid ounces (6 – 12 ppm) BIOSPERSE™ 244 per each 1000 gallons of water in the system. Subsequently, maintain this level by pumping a continuous feed of 0.12 to 0.6 fluid ounces (1.2 to 6 ppm) BIOSPERSE™ 244 per each 1000 gallons of water in the system lost by blowdown.

**ALGAL CONTROL**

**INTERMITTENT OR SLUG FEED METHOD**

Initial Dose: When the system is noticeably fouled, add 6.0 to 12.0 fluid ounces (60 -120 ppm) BIOSPERSE™ 244 per each 1000 gallons of water in the system. Repeat until control is achieved.

Subsequent Dose: When algal control is evident, add 4.0 to 12.0 fluid ounces (40 – 120 ppm) BIOSPERSE™ 244 per each 1000 gallons of water in the system or as needed to maintain control.

**CONTINUOUS FEED METHOD**

Initial Dose: When the system is noticeably fouled, add 6.0 to 12.0 fluid ounces (60 to 120 ppm) BIOSPERSE™ 244 per each 1000 gallons of water in the system.

Subsequent Dose: Maintain this treatment level by pumping a continuous feed of 4.0 to 12.0 fluid ounces (40 to 120 ppm) BIOSPERSE™ 244 per each 1000 gallons of water in the system.

**AIR WASHER SYSTEMS**

Add 0.15 to 3.07 fluid ounces (1.5 to 24 ppm) BIOSPERSE™ 244 per each 1000 gallons of water in the system, depending upon the severity of contamination to control slime forming bacteria and fungi in industrial air washer systems.

**INTERMITTENT OR SLUG FEED METHOD**

Initial Dose: When the system is noticeably fouled, add 0.3 to 12.0 fluid ounces (3.0 to 120 ppm) BIOSPERSE™ 244 per each 1000 gallons of water in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 0.0012 to 0.047 gallons (1.5 – 60 ppm) BIOSPERSE™ 244 per each 1000 gallons of water in the system or as needed to maintain control.

**CONTINUOUS FEED METHOD**

Initial Dose: When the system is noticeably fouled, add 0.0023 to 0.095 gallons (3.0 to 120 ppm) BIOSPERSE™ 244 per each 1000 gallons of water in the system.

Subsequent Dose: Maintain this level by pumping a continuous feed of 0.0015 to 0.047 gallons (1.5 to 60 ppm) BIOSPERSE™ 244 per each 1000 gallons of water in the system.

**NOTE:** For use only in industrial air washer systems that contain effective mist eliminating components.

**ENHANCED OIL RECOVERY SYSTEMS**

For controlling slime forming bacteria, sulfide producing bacteria, yeasts, and fungi in oil field water, polymer or mycellar floods, water disposal systems, or other oil field water systems, add 1 – 80 ppm, BIOSPERSE™ 244 (0.08 to 6.4 gallons BIOSPERSE™ 244 per 2400 barrels of water) depending on the severity of contamination. Additions should be made with a metering pump either continuously or intermittently.

**INTERMITTENT OR SLUG FEED METHOD**

When the system is noticeably fouled, or to maintain control of the system, add 10 – 80 ppm BIOSPERSE™ 244 (0.8 to 6.4 gallons BIOSPERSE™ 244 per 2400 barrels of water) intermittently for 4 – 8 hours per day, and from 1 – 4 times per week or as needed depending on the severity of contamination. Addition of BIOSPERSE™ 244 may be made at the free water knockouts, before or after the injection pumps and injection well headers.

**NOTE:** For control of bacteria, yeast, and fungi in aqueous solutions of biopolymer (xanthan gum) used in flooding operations, add 15 – 80 ppm BIOSPERSE™ 244 (1.2 – 6.4 gallons BIOSPERSE™ 244 per 2400 gallons of water). Additions of BIOSPERSE™ 244 should be made with a metering pump immediately after preparation of the aqueous biopolymer solution to prevent loss of viscosity.

**CONTINUOUS FEED METHOD**

When the system is noticeably fouled, add 10 – 80 ppm BIOSPERSE™ 244 (0.8 – 6.4 gallons BIOSPERSE™ 244 per 2400 barrels of water) continuously until the desired degree of control is achieved. Subsequently, treat with 1 – 15 ppm BIOSPERSE™ 244 (.08 – 1.2 gallons BIOSPERSE™ 244 per 2400 barrels of water) continuously, or as needed to maintain control.

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**METALWORKING FLUIDS CONTAINING WATER**

BIOSPERSE™ 244 is effective in metalworking fluid concentrates which have been diluted in water at ratios of 1:100 – 1:4

For controlling (or inhibiting) the growth of bacteria, fungi and yeasts that may deteriorate metalworking fluids containing water, add BIOSPERSE™ 244 to the fluid in the collection tank. Additions should be made with a metering pump.

INITIAL OR SLUG DOSE: When the system is noticeably fouled, add 32 fluid ounces (250 ppm) BIOSPERSE™ 244 per each 1000 gallons of metalworking fluid in the system. Repeat until control is achieved.

SUBSEQUENT DOSE: When microbial control is evident, add 12.8 to 25.6 fluid ounces (100 to 200 ppm) BIOSPERSE™ 244 per each 1000 gallons of metalworking fluid per day, or as needed to maintain control. Additions can be made continuously or intermittently. Slug feed the system as required.

FEEDING: BIOSPERSE™ 244 may be fed directly from the drum or diluted with water and fed by any suitable feed system. BIOSPERSE™ 244 should be dosed directly into the sump or basin or any other location where good distributions can be assured.

When required, your Ashland Representative will arrange for microbiological and chemical analyses and offer technical advice concerning your specific problems.

**SLIMICIDE APPLICATIONS**

BIOSPERSE™ 244 is effective in controlling the growth of slime-producing microorganisms which affect the production of paper and paperboard by causing breaks or spots. Dosage will vary from 0.15 to 2.0 pounds of BIOSPERSE™ 244 per ton of dry paper or paperboard products. Dosage depends on the type of stock, complexity of the system, quality of raw water and type and degree of contamination. BIOSPERSE™ 244 may be drip fed continuously from the drum or fed by any suitable chemical feed system. Feed points may include the hydropulper, machine chest or broke system.

**PRESERVATIVE APPLICATIONS**

Many aqueous systems require protections against microbial degradation which may result in changes in physical properties or performance characteristics such as pH drift, viscosity and color variations and foul odor emissions. BIOSPERSE™ 244 will effectively protect paints and coatings, adhesives and animal glues, latex, inks, paper coatings and mineral slurries when used at a dosage level of 0.05 – 1.00%. Cutting fluids and other metal-working fluids are generally protected with 0.1 – 0.5%.

BIOSPERSE™ 244 is also an effective preservative useful in controlling bacterial and fungal growths in drilling muds, gypsum muds, packer fluids and underground flood water. Treatment levels are 0.005 – 1.0% by weight per barrel of mud or packer fluids and 10 – 500ppm in underground flood water.

With any preservative application, BIOSPERSE™ 244 must be added as early as possible to the system and should be added where there is good agitation. Good housekeeping and protection of raw materials will aid in the effectiveness of the preservative.

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**BREWERY PASTEURIZER WATER**

For controlling (or inhibiting) the growth of bacteria, fungi and yeasts in brewery pasteurizing water systems, add BIOSPERSE™ 244 at a point in the system to ensure uniform mixing. Initial or Slug Dose: When the system is noticeably fouled, add BIOSPERSE™ 244 at the rate of 0.25 gal (2.65 lbs) per 1000 gals of water in the system. Repeat until control is achieved. Subsequent Dose: When microbial control is evident, add BIOSPERSE™ 244 at the rate of 0.1 to 0.2 gal (1.06 to 2.12 lbs) per 1000 gals of water per day, or as needed to maintain control. Additions of BIOSPERSE™ 244 product can be made continuously or intermittently. Slug the system as required. Badly fouled systems must be cleaned before treatment is begun.

**INDUSTRIAL PRESERVATION: PAINTS & COATINGS, SLURRIES, ADHESIVES, EMULSIONS, CAULKS**

BIOSPERSE™ 244 may be used to reduce microbiological contamination in process water and raw materials during the formulation phase or be added directly to the final formulated product to reduce contamination prior to packaging of formulated water based products such as paints and coatings, slurries, adhesives, emulsions and caulks. Do not mix with other additives prior to addition in order to avoid decomposition. Typical use levels for these applications are 25 to 2,000 ppm by wt. This is equivalent to 2.8 to 224.0 fluid ounces BIOSPERSE™ 244 per 1,000 gallons or 21.4 to 1,712.0 milliliters BIOSPERSE™ 244 per 1,000 liters. The required concentration will depend on the material being treated and the level of contamination present.

**CONSUMER, HOUSEHOLD AND INSTITUTIONAL PRODUCTS**

BIOSPERSE™ 244 may be used to reduce microbiological contamination in process water and raw materials used to make consumer, household and institutional products. Add directly to the water at a concentration of 125-1,000 ppm by wt. To reduce microbial contamination in formulated products such detergents, polishes and cleansers, add 125 – 250 ppm by wt. of BIOSPERSE™ 244 directly to the product prior to packaging and mix thoroughly.

**PULP AND PAPER MILL SYSTEMS**

**NOTE:** Add BIOSPERSE™ 244 separately to the system. Do not mix it with other additives, so as to avoid decomposition of BIOSPERSE™ 244 due to the high pH of many additive formulations. For the control of slime-forming bacterial, fungal, and yeast growth in pulp, paper and paperboard mills add BIOSPERSE™ 244 at levels of 0.15-0.50 lb/ton (dry) of pulp or paper produced.

Addition can be continuous or intermittent, depending upon the type of system and the severity of contamination. Addition is via a metering pump at a point in the system that will ensure uniform distribution of BIOSPERSE™ 244 in the mass of fiber and water, such as the beaters, Jordan inlet or discharge, broke chests, furnish chests, save-alls and white-water tanks.

**Heavily fouled system** must first be boiled out, then treated with 0.15-0.35 lb. of BIOSPERSE™ 244/ton (dry) of paper or pulp as necessary for control.

**Moderately fouled systems** must be treated continuously with 0.35-0.50 lb. of BIOSPERSE™ 244/ton(dry) of paper or pulp until the slime accumulation is controlled. Subsequent rates can then be reduced to 0.15-0.35 lb. of BIOSPERSE™ 244/ton (dry) of paper on a continuous or intermittent basis as needed for control. Dislodged slime may cause breaks in the paper and a clean-up of the paper machine may be advisable.

**Slightly fouled systems** must be treated continuously with 0.15-0.35 lb. of BIOSPERSE™ 244/ton (dry) of paper or pulp, until the slime is controlled, then added on an intermittent basis to maintain control.

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**STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal

**PESTICIDE STORAGE:** Avoid dilution with water. To maintain product quality, store at temperatures below 60°C. Keep container tightly closed when not in use.

**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. Do not reuse empty container.

**CONTAINER HANDLING:** 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 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. Turn the container over onto its other 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.

**IMPORTANT NOTICE:** Seller warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated on the label under normal conditions of use. THE FOREGOING WARRANTIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, WHETHER WRITTEN, ORAL OR IMPLIED. THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN OTHER RESPECTS THAN AS EXPRESSLY SET FORTH HEREIN, ARE EXPRESSLY EXCLUDED AND DISCLAIMED.

Manufactured in the United States

Sold by:

Hercules Incorporated, A wholly owned subsidiary of Ashland Inc.

1313 N. Market St. Wilmington, DE 19894  
(302) 594-5000

Emergency Phone Number  
1-800-ASHLAND (1-800-274-5263)

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