

464-675

3/22/2012

1 of 11

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



United States  
Environmental Protection  
Agency

Office of Pesticide Programs

The Dow Chemical Company  
1803 Building  
Midland, MI 48674

MAR 22 2012

Attention: Abigail Trueblood

**Subject:** BIOBAN™ BP-Plus Preservative  
EPA Registration No. 464-675  
Notification Dated February 20, 2012

This will acknowledge receipt of your notification, submitted under the provisions of FIFRA Section 3(c)(9).

**Proposed Notification**

-To correct the Precautionary Statements

**Conditions**

In the Precautionary Statements, change the phrase "Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco" to read "Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet"..

**General Comment**

Based on a review of the submitted material, the following comments apply.

The Notification dated February 20, 2012 is in compliance with PR Notice 98-10 and is acceptable. This information has been added to your file.

If you have any questions concerning this letter, please contact Martha Terry (703) 308-6217.

Sincerely,

A handwritten signature in black ink that reads "M Swindell".

Marshall Swindell  
Product Manager (33)  
Regulatory Management Branch 1  
Antimicrobials Division (7510P)



Please read instructions on reverse before completing form.

Form Approved. OMB No. 2070-0060. Approval expires 2-28

United States  
Environmental Protection Agency  
Washington, DC 20460☐ Registration  
☐ Amendment  
☒ Other

OPP Identifier Number

## Application for Pesticide - Section I

1. Company/Product Number 464-675	2. EPA Product Manager M. Swindell	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restrictive
4. Company/Product (Name) BIOBAN(TM) BP-PLUS Preservative	PM# 33	
5. Name and Address of Applicant (Include ZIP Code) The Dow Chemical Company 1803 Building Midland, MI 48674  <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

## Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Label notification to correct Precautionary Statements

## Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Text		<input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input checked="" type="checkbox"/> Other (Specify) Fiber drum	
* Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt.	No. per container
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 27; 44.5 liter		5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input type="checkbox"/> Other _____			

## Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Abigail Trueblood	Title Product Stewardship Manager	Telephone No. (Include Area Code) 847-808-3555
2. Signature 		3. Title Product Stewardship Manager
4. Typed Name Abigail Trueblood		5. Date 2-20-12
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)





30411

February 20, 2012

The Dow Chemical Company  
1500 E. Lake Cook Road  
Buffalo Grove, IL 60089  
USA

Document Processing Desk (NOTIF)  
Office of Pesticide Programs (7504P)  
U.S. Environmental Protection Agency  
Room S-4900, One Potomac Yard  
2777 South Crystal Drive  
Arlington, VA 22202-4501  
ATTN: Mr. Marshall Swindell

Re: BIOBAN™ BP-PLUS Preservative, EPA Reg. No. 464-675  
Notification to Correct Precautionary Statements

Dear Mr. Swindell:

The Dow Chemical Company (Dow) hereby submits a notification to restore the Precautionary Statements for BIOBAN BP-PLUS Preservative to the statements approved on the May 3, 2011 stamped label. Although your office did agree to rescind a later Notification (November 8, 2011), we have not been successful in having it removed from PPLS. This is causing some issues with state registrations.

The purpose of this Notification is to insure that the latest approved label for this product in PPLS is correct.

**This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under Sections 12 and 14 of FIFRA.**

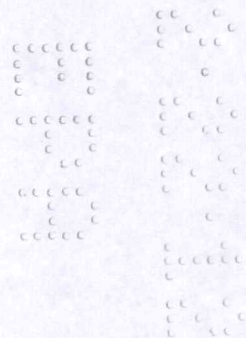
Enclosed with this notification are the following:

- EPA Form 8570-1, marked for Notification
- One copy of the proposed label with changes (from the 11-8-11 label) highlighted

Please contact me if you have any questions.

Sincerely,

Abigail Trueblood  
Product Stewardship Manager  
847-808-3555  
atrueblood@dow.com





## BIOBAN™ BP-PLUS Preservative

### Active Ingredient(s)

2-Bromo-2-nitropropane-1,3-diol . . . 99.0%

Inert Ingredient(s) . . . . . 1.0%

Total 100.0

E.P.A. Registration No. 464-675

E.P.A. Est. No. XXXX-XX-XX

**KEEP OUT OF REACH OF CHILDREN**

## DANGER

### FIRST AID

#### IF IN EYES

- Wash immediately and continuously with flowing water for at least 30 minutes.
- Remove contact lenses if present after the first 5 minutes and continue washing.
- Obtain prompt medical consultation, preferably from an ophthalmologist

#### 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 so by the 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.

#### 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.

### HOT LINE NUMBER

IN CASE OF AN EMERGENCY CASE endangering life or property involving this product, call collect (989) 636-4440. Have the product container or label with you when calling a poison control center or doctor or going for treatment

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



## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

CORROSIVE . CAUSES IRREVERSIBLE EYE DAMAGE AND SKIN IRRITATION. MAY BE FATAL IF SWALLOWED OR ABSORBED THROUGH SKIN. HARMFUL IF INHALED. PROLONGED OR FREQUENTLY REPEATED SKIN CONTACT MAY CAUSE ALLERGIC REACTIONS IN SOME INDIVIDUALS

Do not get in eyes, on skin, or on clothing. Do not breathe dust. Wear goggles and chemical resistant rubber gloves. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Remove contaminated clothing and wash clothing before reuse.

### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish. 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. Do not contaminate water by cleaning of equipment or disposal of waste.

### PHYSICAL AND CHEMICAL HAZARDS

Avoid contact with metal equipment such as scoops, mills or sieves.

### STORAGE AND DISPOSAL

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

**Pesticide Storage:** Keep away from heat.

**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 of the nearest EPA Regional Office for guidance.

### Container Disposal:

**Nonrefillable container:** Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then offer for recycling, if available or dispose of liner in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner.



**See Directions for Use Label Adjacent to the BIOBAN BP-PLUS Preservative Drum Label**  
***Alternate Wording for Small Packages: SEE OUTER PACKAGE LABEL FOR USE DIRECTIONS***

**[Directions for Use Label]**

**Directions for Use Label to be used with BIOBAN BP-PLUS Preservative drum label**

**IN CASE OF AN EMERGENCY** endangering life or property involving this product, call collect (989)636-4400. Have the product container or label with you when calling a poison control center or doctor or going for treatment/

**DIRECTIONS FOR USE**

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

**GENERAL USE DIRECTIONS** To control the growth of slime-forming, spoilage, odor-causing and corrosion inducing bacteria and algae in industrial applications. **Not for control of algae in the State of California.**

BIOBAN BP-PLUS Preservative can be dosed directly or by preparing a stock solution immediately prior to application either by open pouring (not cooling water treatment) or by metered pump. For product preservation BIOBAN BP-PLUS Preservative is best added after any heating stage, or when the product has cooled below 40°C. This product may be used in terrestrial and off-shore oil drilling muds and packer fluids. Do not apply by open pouring of liquid to cooling water systems; a metering pump delivery system is required for this use and application method.

Applicators and other handlers must wear:

Coveralls over long-sleeve shirt and long pants

Goggles and face shield

Socks plus shoes

Chemical resistant gloves

Dust/mist filtering respirator (MSHA/NIOSH) approval number prefix (TC-21C), or a NIOSH approved respirator with any N,R,P, or HE prefilter.

Follow manufacturer's instruction for cleaning/maintaining personal PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

**INDUSTRIAL RECIRCULATING WATER COOLING TOWERS AND EVAPORATIVE CONDENSER**

To control slime-forming bacteria and algae in industrial recirculation towers and evaporative condensers, BIOBAN BP-PLUS PRESERVATIVE may be added as the solid directly into the sump or basin or it may be added to the cooling water return at suitable point. The BIOBAN BP-PLUS Preservative should be added at a point where there is adequate flow or turbulence to ensure quick dissolution (e.g. the pump outlet from the tower sump).

**FREQUENCY AND DOSE:** BIOBAN BP-PLUS PRESERVATIVE may be slug- dosed once or twice weekly as a normal routine. Where contamination is heavy, more frequent dosing may be required. BIOBAN BP-PLUS Preservative should be shock-dosed at between 0.21-0.84 lb/1000 gallons, depending on the condition of the tower, the quality of the raw water input, and the amount of bleed off.

**PRODUCED WATER**

To inhibit the growth of slime-forming or corrosion-inducing sulfate-reducing bacteria in formation water produced by wells together with oil or gas. BIOBAN BP-PLUS Preservative may be used as the solid or pre-dissolved in a



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quantity of warm water or alcohol, then injected into the water-containing oil or gas stream at any convenient point. It should be injected as slug doses, not as a continuous feed.

**FREQUENCY AND DOSE:** Depending on severity and rapidity of contamination, BIOBAN BP-PLUS Preservative should be slug-dosed from once a week to once a month with 0.018-0.036 lb per barrel.

**INDUSTRIAL PROCESS WATER**

Use BIOBAN BP-PLUS Preservative to effectively control bacterial and algal growth in industrial process water, including closed circuit machine cooling (injection molding etc) and stored (non-potable) water, as well as to reduce the biofouling of pipework, heat exchangers, condenser tubes, and to minimize microbially produced corrosion.

Dosing should be carried out into the sump/tank of the process water system. Shock-dosing is preferred. It is not necessary to dilute BIOBAN BP-PLUS Preservative concentrate prior to dosing. BIOBAN BP-PLUS Preservative can also be used as an intermittent, flush treatment during regular maintenance cleaning of tank and equipment.

**FREQUENCY AND USE:** In open systems, shock-dosing should be carried out on a once weekly to once monthly basis, depending on the degree of contamination. In closed circuit systems, less frequent dosing (once or twice monthly) would be sufficient. Dosing should be carried out to give an initial concentration of 50 ppm (0.42 lb/1000 gallons). When the above treatment has been successful, dosing can be lowered to a minimum of 10 ppm BIOBAN BP-PLUS Preservative (0.08 lb/1000 gallons). For intermittent treatment of industrial process waters during routine maintenance, BIOBAN BP-PLUS Preservative should be used at 100 ppm (0.84 lb/1000 gallons) and a contact time of at least one hour.

**DRILLING FLUIDS AND WORKOVER AND COMPLETION FLUIDS**

To inhibit the growth of cellulolytic, slime-forming or sulfate-reducing bacteria in oil and gas well drilling muds and brines, BIOBAN BP-PLUS Preservative may be used as the solid or pre-dissolved in a quantity of warm water, then dosed directly into the mud or brine.

**FREQUENCY AND DOSE:** A single slug dose one to three times each 24 hours. Dosing may be less frequent where the contamination is low. Each slug dose should be 0.018 to 0.036 lb per barrel total mud volume.

**WATERFLOOD**

To inhibit the growth of anaerobic and aerobic bacteria in all waterflood base fluids used in recovery of oil and gas reservoirs, add BIOBAN BP-PLUS Preservative as a dry product or pre-dissolve in any base fluid, or inject directly at the well head.

**FREQUENCY AND DOSE:** A BIOBAN BP-PLUS Preservative should be added continuously to waterflood fluids or slug-dosed, depending on the bottom hole temperature and fluid chemistry at the rate of 25-100 ppm (0.009-0.036 lb per barrel) depending on the quality of the base fluid.

**INJECTION FLUIDS**

For the control of contamination and corrosion from bacterial sources in fluids/waste fluids that are disposed of through injection into an approved well following approved guidelines, add BIOBAN BP-PLUS Preservative as a dry product or pre-dissolved in each volume of fluid prior to injection.

**FREQUENCY AND DOSE:** BIOBAN BP-PLUS Preservative should be added at a rate of 50-100 ppm (0.018-0.036 lb per barrel) based on the water percent of the injection fluid.

**ENHANCED OIL RECOVERY (EOR) FLUIDS**

For the effective control of bacterial growth and eliminating degradation of EOR gels and fluids used in the oil and gas industry, add BIOBAN BP-PLUS Preservative during mixing as a dry product or pre-dissolve or add by injection during the EOR process.

**FREQUENCY AND DOSE:** BIOBAN BP-PLUS Preservative should be added throughout the EOR operation at the rate of 50-100 ppm (0.018-0.036 lb per barrel) depending on the quality of the makeup water.

**WELL SQUEEZE FLUIDS**

For the effective control of aerobic and anaerobic bacteria in squeeze fluids and downhole well bore areas, add BIOBAN BP-PLUS Preservative during pre-mixing of the well squeeze fluid or (in the case of direct mix injection systems) an aqueous solution may be added by direct injection at the well head during the well squeeze procedure.

**FREQUENCY AND DOSE:** BIOBAN BP-PLUS Preservative should be used for each well squeeze operation to ensure best results. Add BIOBAN BP-PLUS Preservative at the rate of 0.21-1.68 lb/1000 gallons, depending on the quality of the makeup water.



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#### FRACTURING FLUIDS

BIOBAN BP-PLUS Preservative reduces bacterial contamination and degradation of fracturing gels and fluids used as well stimulants in the oil and gas industry. BIOBAN BP-PLUS Preservative may be added during pre-mixing of the fracturing fluid or (in the case of direct mix injection systems) an aqueous solution may be added by direct injection at the head during the fracturing procedure.

FREQUENCY AND DOSE: BIOBAN BP-PLUS Preservative should be used for each fracturing operation to ensure best results. BIOBAN BP-PLUS Preservative should be added at a rate of 0.042-0.84 lb/1000 gallons depending on the quality of the makeup water.

#### PAPER MILL PROCESS WATER

To control slime-forming bacteria in paper or paperboard process water systems, BIOBAN BP-PLUS Preservative may be dosed as the solid at a convenient point early in the process system. Suitable dosing points are the machine chest, constant head box, or backloop system.

FREQUENCY AND DOSE: BIOBAN BP-PLUS Preservative should be shock-dosed once, twice or three times daily in quantities sufficient to meet the required dose based on the daily production of finished products. Dose at between 0.02-0.5 lb per ton of finished paper or paperboard depending on the complexity of the system, quality of the raw paper and the type and degree of contamination.

#### PAPER MILLS-BULK PULP

To preserve bulk quantities of pulp in paper and paperboard manufacturing systems or to prevent foul odors and general biodeterioration of stock when it is stored in bulk for any significant period of time, add BIOBAN BP-PLUS Preservative as the solid or pre-dissolve in a quantity of warm water, then dose directly into the hydropulper, machine chest or stock chest.

FREQUENCY AND DOSE: In general, a single slug dose will provide protection for up to 3 days or longer depending upon the initial level of contamination in the stock. In situations where contamination is high, repeat dosing every 1-7 days may be required. BIOBAN BP-PLUS Preservative should be dosed at between 0.09-0.44 lb per ton of stock (0.42-1.7 lb/1000 gallons) depending on the type and degree of contamination.

#### ABSORBENT CLAYS, CORN COBS AND GROUND WOOD

Impregnate absorbent clays, corn cobs or ground wood with BIOBAN BP-PLUS Preservative to inhibit the growth of odor-causing bacteria. The suggested application rate is 25-200 ppm (0.04-0.32 oz.av. per 100 pounds of absorbent material).

#### PAINTS, WATER-BASED COATING, APPLICATION TANKS AND LATEX

To provide in-can preservation and prevent bacterial spoilage during storage of acrylic, styrene-acrylic, polyvinyl acetate and other latex emulsion concentrates and latex emulsion based paints. Also to prevent spoilage of in-service paint application tanks. Add BIOBAN BP-PLUS Preservative at any convenient point during the manufacturing process. Ideally it should be added as a final step just prior to packing of the product into bulk or sales packs. If a heating stage is involved in the manufacture, add BIOBAN BP-PLUS Preservative after this stage when the product has cooled to below 40° C. Addition to application tanks should be by slug dosing the tank as needed to prevent bacterial spoilage.

FREQUENCY AND DOSE: BIOBAN BP-PLUS Preservative should be dosed at 25-500 ppm based on the final formulation volume (0.21-4.2 pt/ 1000 gallons).

#### ADHESIVES

For control of microbial contamination, add 0.1 to 1.0 lb of BIOBAN BP-PLUS Preservative per 1000 lb total formulation weight. The addition is best accomplished by pre-dissolving the product in any water to be incorporated into the formulation.

#### USES UNAPPROVED IN CALIFORNIA

#### PIPELINE MAINTENANCE

To control aerobic and anaerobic bacteria, particularly sulfate-reducing bacteria, growth in oil and gas related production piping and transportation systems, pre-dissolve BIOBAN BP-PLUS Preservative in warm water or in a



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carrier solvent to give up to 20% concentrate. This concentrate can be injected directly into the pipeline or may be added to the hydrocarbon phase. Using carrier solvent addition of the BIOBAN BP-PLUS Preservative will produce long-term water phase concentrations by a diffusion process.

**FREQUENCY AND DOSE:** Carrier additions will vary with the degree of contamination and volume of fluids through the pipeline. Slug treatments are recommended and can vary from daily to monthly to control growth.

BIOBAN BP-PLUS Preservative should be dosed at a rate which will achieve concentrations of 25-200 ppm in the aqueous phase. When using a carrier solvent, higher concentrations may be used to allow diffusion into the aqueous phase. Dose will depend on the volume of crude or oil and the expected water fraction.

**WATER BOTTOMS IN HYDROCARBON STORAGE SYSTEMS AND TRANSPORTATION TANKS**

For effective preservative control of bacterial contamination in water bottoms, in crude and refined hydrocarbon storage systems. Above and below ground storage tanks and large marine systems are all suitable for treatment. BIOBAN BP-PLUS Preservative may be pre-dissolved in warm water to give up to a 20% concentrate. This concentrate can be injected directly into the water bottom or may be sprayed over the surface of the hydrocarbon phase and allowed to percolate through. Using a carrier solvent for addition of BIOBAN BP-PLUS Preservative into the hydrocarbon phase will provide long-term water concentrations by a diffusion process.

**FREQUENCY AND DOSE:** Direct addition to the water phase should be carried out every 30-60 days. Using a carrier solvent for addition to the hydrocarbon phase will provide long term water concentrations depending on frequency of hydrocarbon movement, draining of water bottom, and other factors. BIOBAN BP-PLUS Preservative should be dosed at a rate which will achieve concentrations of 50-100 ppm in the aqueous phase. When using a carrier solvent, higher initial concentrations may be used to allow diffusion into the aqueous phase.

**WATER-BASED PRINTING INKS AND FOUNT SOLUTIONS**

To inhibit the growth of spoilage bacteria during the storage and use of water-based printing inks and fount solutions. For in-can preservation add BIOBAN BP-PLUS Preservative at any convenient point during the manufacturing process. Ideally it should be added as a final step after any heating stage and when the product has cooled to below 40° C. To control bacterial spoilage during the use of fount solutions, BIOBAN BP-PLUS Preservative should be shock-dosed at a suitable point in the fount reservoir where there is adequate flow or turbulence to ensure quick dissolution. BIOBAN BP-PLUS Preservative may be shock-dosed once or twice weekly as a normal routine. Where conditions indicate, more frequent shock-dosing may be required.

**IN-CAN PRESERVATION:** BIOBAN BP-PLUS Preservative should be shock-dosed at 100-500 ppm based on the final formulation volume (0.84 to 4.2 pt/1000 gallons).

**FOUNT SOLUTIONS:** BIOBAN BP-PLUS Preservative should be shock-dosed at between 25 and 100 ppm (0.21 to 0.84 pt/1000 gallons), depending on the contamination levels in the fount reservoir.

**INDUSTRIAL AND/OR COMMERCIAL AIR WASHERS**

For the effective control of bacterial growth in air scrubbing units and to reduce built up slime deposits. Dosing should be carried out into the water pump of the scrubbing unit on a routine basis. Shock dosing is preferred. It is not necessary to dilute BIOBAN BP-PLUS Preservative concentrate prior to dosing. BIOBAN BP-PLUS Preservative can also be used as an intermittent flush treatment during regular maintenance/cleaning of the scrubbing unit.

**FREQUENCY AND DOSE:** Shock dosing should be carried out on a regular basis. Heavily fouled systems may require twice weekly treatment. Light to moderate contamination will require once weekly to once monthly additions. Dosing should be carried out to give an initial concentration of 50 ppm (0.42 lb/1000 gallons). When the above treatment has been successful, dosing can be lowered to a minimum of 25 ppm (0.21 lb/1000 gallons). For intermittent treatment of air-scrubbing systems during routine maintenance/cleaning BIOBAN BP-PLUS Preservative should be used at 100 ppm (0.84 lb/1000 gallons) and a contact time of at least one hour.

**INDUSTRIAL AND/OR COMMERCIAL AIR CONDITIONING AND HUMIDIFYING SYSTEMS**

For the effective control of bacterial growth in air conditioning and humidifying systems and to remove built up slime deposits. Dosing should be carried out into the conditioning water sump on a routine basis. Shock dosing is preferred. It is not necessary to dilute BIOBAN BP-PLUS Preservative concentrate prior to dosing. BIOBAN BP-PLUS Preservative also can be used as an intermittent flush treatment during regular maintenance/cleaning of the air conditioning units.

**FREQUENCY AND DOSE:** Shock dosing should be carried out on a once weekly to once monthly basis. Dosing should be carried out to give an initial concentration of 50 ppm (0.42 lb/1000 gallons). When the above treatment has been successful, dosing can be lowered to a minimum of 25 ppm (0.21 lb/1000 gallons). For intermittent



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treatment of air conditioning systems during routine maintenance BIOBAN BP-PLUS Preservative should be used at 100 ppm (0.84 lb/1000 gallons) and a contact time of at least one hour.

### STARCH PIGMENT AND EXTENDER SLURRIES

To inhibit the growth of spoilage bacteria during the manufacture, storage and distribution of water-based suspension concentrates. BIOBAN BP-PLUS Preservative may be dosed at or close to the end of the manufacturing process as the solid or pre-dissolved in a quantity of the process water. If the manufacturing process involves a heating stage, the BIOBAN BP-PLUS Preservative should be added after this stage when the product has cooled to below 40° C.

FREQUENCY AND DOSE: BIOBAN BP-PLUS Preservative should be dosed at 100-500 ppm based on the final formulation volume (0.84-4.2 lb/ 1000 gallons).

### RAW MATERIALS

To inhibit bacterial spoilage during shelf-life storage and the use of raw materials when supplied for the manufacture of industrial and consumer products, this product may be added at any convenient point during the manufacturing process. Ideally it should be added as a final step just prior to packing of the product into bulk or sales packs. If a heating stage is involved in the manufacture of a product add this product after this stage when the product has cooled to below 40° C.

### SURFACTANTS

To inhibit bacterial spoilage during shelf storage and the use of bulk anionic, nonionic, amphoteric and cationic surfactants when supplied for the manufacture of industrial and consumer products, this product may be added at any convenient point during the manufacturing process. Ideally it should be added as a final step just prior to packing of the product in bulk or sales packs. If a heating stage is involved in the manufacture of a product, add this product after this stage when the product has cooled to below 40° C.

FREQUENCY AND DOSE: This product should be dosed at 25 to 500 ppm based on the final formulation volume (0.21-4.2 lb/1000 gallons).

### CONSUMER, HOUSEHOLD AND INSTITUTIONAL PRODUCTS

To inhibit bacterial spoilage during the shelf-life and use of consumer, household, and institutional products, including dishwashing liquids, laundry detergents, fabric softeners, surface cleaners, cleaning wipes and polishes, and car care products, this product may be added at any convenient point during the manufacturing process. Ideally it should be added as a final step just prior to packing of the product into bulk or sales packs. If a heating stage is involved in the manufacture of a product add this product after this stage when the product has cooled to below 40° C.

FREQUENCY AND DOSE: This product should be dosed at 25 to 500 ppm based on the final formulation volume (0.21 - 4.2 lb/1000 gallons).

### WATER BASED AGRICULTURAL PESTICIDE CONCENTRATES

To inhibit bacterial spoilage during the shelf-life storage and use of water based agricultural pesticide concentrates, this product may be added at any convenient point during the manufacturing process. Ideally it should be added as a final step just prior to packing of the product into bulk or sales packs. If a heating stage is involved in the manufacture of a product add this product after this stage when the product has cooled to below 40° C.

FREQUENCY AND DOSE: This product should be dosed at 100 to 500 ppm based on the final formulation volume (0.84- 4.2 lb/1000 gallons).

### CHEMICAL TOILET DEODORANTS

To inhibit the growth of odor-causing bacteria in chemical toilets. Deodorant concentrates should incorporate BIOBAN BP-PLUS Preservative at levels of 1-28% depending on the desired concentration level. To effectively control odor in a portable toilet, a level of 100-500 ppm BIOBAN BP-PLUS Preservative is recommended.

### LIMITED WARRANTY AND DISCLAIMER

Seller warrants that the product conforms to its chemical description as contained on this label and is reasonably fit for the purposes stated on this label when used in accordance with directions under normal conditions of use. THE



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Final MASTER LABEL

February 20, 2012

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