NOV 0 3 2005

The Dow Chemical Company
1803 Building
Midland, MI 48674

Attention: Abigail Trueblood
Regulatory Specialist

Subject: BIOBAN BP- 10 Preservative
EPA Registration No. 464-680
Your Amendment Dated August 5, 2005

The amendment, submitted in connection with registration under the FIFRA sec. 3(c)(7)(A) to revise the product label, is acceptable, provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA sec.3(c)(5) and sec. 4 when the Agency requires all registrants of similar products to submit such data.

2. Submit two (2) copies of final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

The submitted Storage Stability and Corrosion Characteristics Data under MRIDs # 466221-01 are acceptable to further satisfy the product chemistry data requirements. Refer to the enclosed copy of the Product Chemistry Review under "FINDINGS" AND "RECOMMENDATIONS" for further comments.

A stamped copy of the "accepted" labeling is enclosed for your records.

CONCURRENCES								
SYMBOL								
SURNAME								
DATE								

*U.S. Government Printing Office: 1992 — 620-838/40872

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

Sincerely

Martha L. Terry /for

Marshall Swindell
Product Manager (33)
Regulatory Management Branch 1
Antimcrobials Division (7510C)

Enclosure

BIOBAN™ BP-10 PRESERVATIVE

Active Ingredient(s)

2-Bromo-2-nitropropane-1,3-diol . . .	10.0%
Inert Ingredient(s)	90.0%
Total	100.0%

EPA Registration No. 464-680
EPA Est. 37429-GA-2

KEEP OUT OF REACH OF CHILDREN

DANGER

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CORROSIVE • CAUSES IRREVERSIBLE EYE DAMAGE AND SKIN IRRITATION • HARMFUL IF SWALLOWED, ABSORBED THROUGH THE SKIN, OR INHALED • PROLONGED OR FREQUENTLY REPEATED SKIN CONTACT MAY CAUSE ALLERGIC REACTION IN SOME INDIVIDUALS

Do not get in eyes, on skin, or on clothing. Wear overalls over long-sleeved shirt and long pants, socks, chemical resistant footwear, goggles, and chemical resistant gloves (such as nitrile, butyl rubber, neoprene rubber, or barrier laminate). Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 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. Wash the outside of gloves before removing. As soon as possible wash thoroughly and change into clean clothing.

PHYSICAL AND CHEMICAL HAZARDS
This product is corrosive to mild steel.

DOW*

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Midland, Michigan 48674 U.S.A.
(989)636-4400

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FIRST AID:	
IF IN EYES:	• Wash immediately and continuously with flowing water for at least 30 minutes. • Remove contact lenses after the first 5 minutes and continue washing. • Obtain prompt medical consultation, preferably from an ophthalmologist.
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 by a poison control center or doctor.
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.
IF INHALED:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mout if possible. • Call a poison control center or doctor for further treatment.
HOT LINE NUMBER	
IN CASE OF AN EMERGENCY endangering life or property involving this product, call collect **(989)636-4400**. Ha 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.	

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.

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 WARRANTIES MADE IN THIS PARAGRAPH ARE SELLER'S SOLE WARRANTIES WITH RESPECT TO THE PRODUCT AND ARE MADE EXPRESSLY IN LIEU OF AND EXCLUDE ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE AND ALL OTHER EXPRESS OR IMPLIED REPRESENTATIONS AND WARRANTIES.

DIRECTIONS FOR USE

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING.

STORAGE AND DISPOSAL: Do not contaminate water, food, or feed by storage or disposal. Keep away from heat.

PESTICIDE STORAGE: Do not store or transport in unlined metal container.

NET WT: 215.4 kg / 475 lb

LOT

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PESTICIDE DISPOSAL: Pesticide wastes are Improper disposal of excess pesticide, spray mi violation of Federal law. If these wastes cannot b according to label instructions, contact your Environmental Control Agency, or the Hazardous of the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Empty residue into ap triple rinse (or equivalent), then offer dru reconditioning, or puncture. Dispose of container by incineration, if allowed by State and local autho out of smoke.

GENERAL USE DIRECTIONS: To cont slime-forming, spoiling, odor-causing and corros and algae in industrial applications. Not for control BIOBAN BP-10 PRESERVATIVE can be dosed stock solution immediately prior to application eithe cooling water treatment) or by metered pump.
For product preservation BIOBAN BP-10 PRESER after any heating stage or when the product has coo

See Directions For Use labe to the BIOBAN™ BP-10 dr

CORROSIVE LIQU ORGA (contains:2-bromo-2-nitro-1,3

Apply **Corr**

BIOBAN™ BP-10 PRESERVATIVE

Directions For Use label to be used with BIOBAN™ BP-10 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, spoiling, odor-causing and corrosion inducing bacteria and algae in industrial applications. Not for control of algae in California.
BIOBAN BP-10 PRESERVATIVE can be dosed directly 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-10 PRESERVATIVE is best added after any heating stage or when the product has cooled below 40°C.

OIL FLOODING/INJECTION WATERS
To inhibit the growth of slime-forming or corrosion-inducing sulfate-reducing bacteria in oil well injection waters, inject BIOBAN BP-10 PRESERVATIVE as a slug dose at any convenient point.
FREQUENCY AND DOSE: Depending on severity and rapidity of contamination, BIOBAN BP-10 PRESERVATIVE should be used from once a week to once a month at a concentration of 2-8 pt./1000 gallons.

DRILLING FLUIDS
To preserve oil and gas well drilling muds by inhibiting growth of cellulolytic, slime-forming or sulfate-reducing bacteria. BIOBAN BP-10 PRESERVATIVE may be dosed directly into the mud hopper.
FREQUENCY AND DOSE: A single slug dose one to three times each 24 hours. Each slug dose should be 0.18 to 0.36 pt./barrel total mud volume.

DRILLING FLUIDS AND WORKOVER AND COMPLETION FLUIDS
For use in oil and gas well drilling muds, and brines, inhibiting growth of cellulolytic, slime-forming or sulfate-reducing bacteria. BIOBAN BP-10 PRESERVATIVE may be 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 0.18 to 0.36 pt./barrel total mud volume.

INJECTION FLUIDS
To control 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-10 PRESERVATIVE to each volume of fluid prior to injection.
FREQUENCY AND DOSE: BIOBAN BP-10 PRESERVATIVE should be added at a rate of 500-1000 ppm (0.18-0.36 pt./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-10 PRESERVATIVE during mixing or by injection during the EOR procedure.
FREQUENCY AND DOSE: BIOBAN BP-10 PRESERVATIVE should be added throughout the EOR operation. BIOBAN BP-10 PRESERVATIVE should be added at a rate of 500-1000 ppm (0.18-0.36 pt./barrel) depending on the quality of the makeup water.

Accepted with COMMENTS
EPA Letter Dated:
NOV 0 8 2005
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No. 464-650

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WELL SQUEEZE FLUIDS
For the effective control of aerobic and anaerobic bacteria in squeeze fluids and downhole well bore areas, add BIOBAN BP-10 PRESERVATIVE during pre-mixing of the well squeeze fluid or by direct injection at the well head during the well squeeze procedure.
FREQUENCY AND DOSE: BIOBAN BP-10 PRESERVATIVE should be used for each well squeeze operation to ensure best results. Add BIOBAN BP-10 PRESERVATIVE at a rate of 2-16 pt./1000 gallons, depending on the quality of the makeup water.

FRACTURING FLUIDS
BIOBAN BP-10 PRESERVATIVE reduces bacterial contamination and degradation of fracturing gels and fluids used as well stimulants in the oil and gas industry. Add BIOBAN BP-10 PRESERVATIVE directly to the water phase at any stage of the fracturing operation, for example, at the pre-mixing stage or by direct injection at the well head in combined mix/injection procedures.
FREQUENCY AND DOSE: BIOBAN BP-10 PRESERVATIVE should be used for each fracturing operation to ensure best results. Add BIOBAN BP-10 PRESERVATIVE at a rate of 4-8 pt./1000 gallons, depending on the quality of the makeup water.

INDUSTRIAL RECIRCULATING WATER COOLING TOWERS AND EVAPORATIVE CONDENSERS
To control slime-forming bacteria and algae in industrial recirculation cooling towers and evaporative condensers, BIOBAN BP-10 PRESERVATIVE may be slug-dosed directly into the sump or basin or it may be added by a suitable chemical pump. Where metering pumps are used, these must be set to deliver the required dose as fast as possible (e.g., within 1 hour). The dosing point should be located close to the outlet from the basin to ensure rapid dispersal around the system.
FREQUENCY AND DOSE: BIOBAN BP-10 PRESERVATIVE may be shock-dosed once or twice weekly as a normal routine. Where contamination is heavy, more frequent dosing may be required. In heavily fouled systems, the tower should be drained and cleaned before treating with BIOBAN BP-10 PRESERVATIVE. BIOBAN BP-10 PRESERVATIVE should be shock-dosed at between 2-8 pt./1000 gallons depending on the condition of the tower, the quality of 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, inject BIOBAN BP-10 PRESERVATIVE 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-10 PRESERVATIVE should be slug-dosed from once a week to once a month with 0.083-0.33 pt./barrel.

INDUSTRIAL PROCESS WATER
Use BIOBAN BP-10 PRESERVATIVE to effectively control bacterial and algal growth in industrial process water, including closed circuit machine cooling (injection molding, etc.) and stored (nonpotable) 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. BIOBAN BP-10 PRESERVATIVE can also be used as an intermittent, flush treatment during regular maintenance cleaning of watertanks (non-potable) or equipment.
FREQUENCY AND DOSE: 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, with little possibility of re-infection or loss of BIOBAN BP-10 PRESERVATIVE because of makeup or dilution, less frequent dosing (once monthly/twice monthly) should be sufficient. Dosing should be carried out to give an initial concentration of 500 ppm BIOBAN BP-10 PRESERVATIVE (4 pt./1000 gallons). When the above treatment has been successful, dosing can be lowered to a minimum of 100 ppm BIOBAN BP-10 PRESERVATIVE (0.8 pt./1000 gallons). For intermittent treatment of industrial process waters during routine maintenance, BIOBAN BP-10 PRESERVATIVE should be dosed at 1000 ppm (8 pt./1000 gallons) and a contact time of at least one hour.

PAPER MILL PROCESS WATER
To control slime-forming bacteria in paper or paperboard process water systems, BIOBAN BP-10 PRESERVATIVE may be dosed at a convenient point early in the process system. Suitable dosing points are the machine chest, constant head box, or backwater loop system.
FREQUENCY AND DOSE: BIOBAN BP-10 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 0.2-5 pints per ton of finished paper or paperboard depending on the complexity of the system, quality of the raw paper and type and the 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-10 PRESERVATIVE directly into the hydropulper, machine chest, or stock chest.
FREQUENCY AND DOSE: In general, a single slug dose will provide control for up to 3 days or longer depending upon the intitial level of contamination in the stock. In situations where contamination is high, repeat dosing every 1-7 days may be required. BIOBAN BP-10 PRESERVATIVE should be dosed at 4-16 pt./1000 gallons per ton of stock depending on the type and degree of contamination.

ADHESIVES
For control of microbial contamination, add 1.0 to 10.0 lb of BIOBAN BP-10 per 1000 lb total formulation weight. The addition is best accomplished by adding the product to any water to be incorporated into the formulation.

PAINTS AND LATEX
To provide in-can preservation and prevent bacterial spoilage during storage of acrylic, styrene-acrylic, polvinyl acetate and other emulsion concentrates and latex emulsion based paints, and to prevent spoilage of in-service paint applications tanks, add BIOBAN BP-10 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-10 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-10 PRESERVATIVE should be dosed at 1000 to 5000 ppm based on the final formulation volume (8 to 40 pt./1000 gallons).

ABSORBENT CLAYS, CORN COBS AND GROUND WOOD
Impregnate absorbent clays, corn cobs or ground wood with BIOBAN BP-10 PRESERVATIVE to inhibit growth of odor-causing bacteria. The suggested application rate is 250-2000ppm (0.4-3.2oz. av. per 100 pounds absorbent material).

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, inject BIOBAN BP-10 PRESERVATIVE directly into the pipeline or add to the hydrocarbon phase. Addition of the BIOBAN BP-10 PRESERVATIVE will produce long-term water concentrations by a diffusion process.
FREQUENCY AND DOSE: Slug treatments are recommended and can vary from daily to monthly to control growth. BIOBAN BP-10 PRESERVATIVE should be dosed at a rate which will achieve concentrations of 250-2000 ppm in the aqueous phase. 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-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-10 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-10 PRESERVATIVE should be shock-dosed at a suitable point in the fount reservoir where there is adequate flow or turbulence to ensure quick mixing. BIOBAN BP-10 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-10 PRESERVATIVE should be dosed at 1000 to 5000 ppm based on the final formulation volume pending on the contamination levels in the font reservoir.
FOUNT SOLUTIONS: BIOBAN BP-10 PRESERVATIVE should be shock-dosed at between 200 and 1000 ppm (1.6 to 8 pt./1000 gallons) depending on the contamination levels in the fount reservoir.

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-10 PRESERVATIVE may be dosed at or close to the end of the manufacturing process in a quantity of the process water. If the manufacturing process involves a heating stage, BIOBAN BP-10 PRESERVATIVE should be added after this stage when the product has cooled to below 40°C.
FREQUENCY AND DOSE: BIOBAN BP-10 PRESERVATIVE should be dosed at 1000 - 5000 ppm based on the final formulation volume (8-40 pt./1000 gallons).

WATER BOTTOMS IN OIL OR TRANSPORTATION TANKS
BIOBAN BP-10 PRESERVATIVE provides effective control of bacterial contamination in water bottoms, in crude, and refined hydrocarbon storage systems. Above and below ground stroage tanks and large marine systems are all suitable for treatment. BIOBAN BP-10 PRESERVATIVE may be injected directly into the water bottom or may be sprayed over the surface of the hydrocarbon phase and allowed to percolate through.
FREQUENCY AND DOSE: Direct addition to the water phase by injection or percolation should be carried out every 30-60 days, depending on the severity of the problem. Addition to the hydrocarbon phase will result in longer term protection by gradual diffusion from the hydrocarbon phase into the water phase (depending on stroage conditions). Incorporate BIOBAN BP-10 PRESERVATIVE at a rate which will achieve concentrations of 500-1000 ppm in the aqueous phase. Larger quantities may be added when dosing the hydrocarbon phase to allow diffusion of active ingredient into the water bottom

HIDES AND SKINS
BIOBAN BP-10 PRESERVATIVE is used to prevent bacterial decomposition of hides and skins. When the product is used for temporary preservation, it is applied at 0.1-1.0% (1,000-10,000 ppm) based on the weight of green fleshed hides or skins. The specific dosage and contact time will be dependent on the condition of the hides and the desired length of preservation.
When used for preservation in brine curing of hides/skins, BIOBAN BP-10 PRESERVATIVE should be used at a level of 0.005-0.50% (50-5,000 ppm) in a raceway or at 0.005-0.5% (50-5,000 ppm) in a mixer based upon the total weight of hides or skins and saturated brine solution. In raceway operations, it can be added directly to the raceway during the addition of hides and operation of paddles. In processor/mixer operations, the product should be added as dispersion in water. A satisfactory dispersion of 1 part BIOBAN BP-10 PRESERVATIVE plus 4 parts water can be prepared by adding the BIOBAN BP-10 PRESERVATIVE to the water (as opposed to adding water to BIOBAN BP-10 PRESERVATIVE) with agitation.

LEATHER
BIOBAN BP-10 PRESERVATIVE can be used to prevent bacterial decomposition of brine-cured, wet-salted, air-dried or green fleshed hides and skins in the soaking process. For this purpose, BIOBAN BP-10 PRESERVATIVE can be used at treatment levels of 0.005 - 0.3% (50-3000 ppm) based upon the weight of the hides/skins and process water (float) and added as dilution in water.
A satisfactory dilution of 1 part BIOBAN BP-10 PRESERVATIVE plus 9 parts water can be prepared by adding the BIOBAN BP-10 PRESERVATIVE to the water (as opposed to adding water to BIOBAN BP-10 PRESERVATIVE) with agitation. This dilution should be made immediately prior to use in the soaking process, and added directly to the soak tank, paddles, mixers or drums as suitable.

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