## KEEP OUT OF REACH OF CHILDREN

# DANGER

### PRECAUTIONARY STATEMENTS

**Hazards to Humans and Domestic Animals**

**DANGER • Corrosive To Skin • Injurious To Eyes • Irritating Dust • Harmful If Swallowed • Do Not Get in Eyes, on Skin, or on Clothing • Avoid Breathing Dusts • Wear Goggles or Face Shield and Rubber Gloves When Handling • Wash Thoroughly After Handling**

## 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. Do not contaminate water by cleaning of equipment or disposal of wastes.

## STORAGE AND DISPOSAL

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

**Storage** - Keep package 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.

**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 mix tank. Triple rinse liner then remove liner and 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. Then offer container for recycling. If container is contaminated and cannot be reused, dispose of it in the manner required for its liner.

**NOTICE:** Do not Ship or Store with Food, Feeds, Drugs or Clothing.

Department of Agriculture
STATE OF HAWAII

**LICENSED**

PERIOD **2015-2017** LIC. NO.

9197.329
Disc.

Department of Agriculture
STATE OF HAWAII

**LICENSED**

PERIOD **2012-2014** LIC. NO.

**NOTICE:** 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 (except uses for which USEPA has accepted the required data and/or citations of data that the formulator has submitted in support of registration) 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.

# BIOBAN™ SP 100 Antimicrobial

**For the control of fungi and bacteria in industrial applications, and for postharvest preservation of pears and citrus fruits.**

**Active Ingredient(s):**

| | |
|---|---|
| **Sodium o-phenylphenate** | **71.7%** |
| **Inert Ingredient(s):** | **28.3%** |
| **Total:** | **100%** |

## FIRST AID

| | |
|---|---|
| **IF IN EYES** | • Hold eye open and rinse slowly and gently with water for 30 minutes<br>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.<br>• Call poison control center or doctor (preferably ophthalmologist) for treatment advice. |
| **IF ON SKIN OR CLOTHING** | • Take off contaminated clothing.<br>• Rinse skin immediately with plenty of water for 30 minutes.<br>• Call a poison control center or doctor for treatment advice. |
| **IF SWALLOWED** | • Call poison control center or doctor immediately for treatment advice.<br>• Have person sip a glass of water if able to do so.<br>• Do not induce vomiting unless told to do so by the poison control center or doctor.<br>• Do not give anything by mouth to an unconscious person |
| **IF INHALED** | • Move person to fresh air<br>• If person is not breathing, call 911 or an ambulance, then give artificial respiration preferably mouth-to-mouth if possible.<br>• Call a poison control center or doctor for further treatment advice. |

## HOT LINE NUMBER

**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.

**Note to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage.

## DIRECTIONS FOR USE

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

Only for (1) postharvest preservation of pears and citrus fruits or industrial uses as specified on this label; (2) uses for which USEPA has accepted the required data and/or citation of data that the formulator has submitted in support of registration; or (3) uses for experimental purposes that are in compliance with USEPA requirements.

If exposed to air for prolonged periods, this material may give a cloudy solution in water. Such cloudiness may be minimized by adding sufficient caustic (sodium hydroxide).

BIOBAN SP 100 Antimicrobial , when used according to good manufacturing practices, meets the requirements of the FDA for use in resinous and polymeric coatings: can end cements [21 CFR 175.300(b)(3)(xxxi)]; adhesives [21 CFR 175.105(c)(5)]; animal glue [21 CFR 178.3120(d)(3)]; zinc-silicon dioxide matrix coatings [21 CFR 175.390(b)(2)]; components of paper and paperboard in contact with aqueous and fatty foods [21 CFR 176.170(b)(2)]; components of paper and paperboard in contact with dry food [21 CFR 176.180(b)(1)]; defoaming agents used in the manufacture of paper and paperboard [21 CFR 176.210(d)(3)]; and closures with sealing gaskets for food containers [21 CFR 177.1210(b)(5)].

Produced for: *When produced by contract manufacturer*


**THE DOW CHEMICAL COMPANY**
Midland,, Michigan 48674 U.S.A.
(989) 636-4400



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E.P.A. Registration No. 464-78
E.P.A. Est. No. 83434-IL-001

**NET WT: 55.1 lb/25 kg**

**LOT**



## DIRECTIONS FOR USE - continued

**NOTE:** PRODUCERS USING THIS PRODUCT TO FORMULATE PESTICIDES ARE RESPONSIBLE FOR OBTAINING EPA REGISTRATION FOR THEIR FORMULATED PRODUCTS.

**POSTHARVEST PRESERVATION - PEARS AND CITRUS FRUITS**

For postharvest preservation of pears and citrus fruits, use 0.05- 3.09% BIOBAN SP 100 by wt in an aqueous solution or in an approved wax emulsion. Apply by spraying, dipping, or flooding.

**INDUSTRIAL APPLICATIONS**

BIOBAN SP 100 Antimicrobial may be used during the production of products for household, institutional and industrial uses.

**Application: Adhesives**
Purpose: To protect adhesives based on starch, protein, natural and synthetic gums, and natural and synthetic rubber latex from deterioration during manufacture, storage, and service life.
Suggested Concentration of BIOBAN SP 100 Antimicrobial
0.05-1.0% by wt of formulation.
How To Apply: Add as a concentrated aqueous solution to the formulation.

**Application: Ceramic Glazes and Clay Slips**
Purpose: To prevent bacterial decomposition.
Suggested Concentration of BIOBAN SP 100 Antimicrobial
0.05-0.19% by wt of formulation.
How To Apply: Add to ingredients of formulation as they are charged into ball mill.

**Application: Chemical Toilets**
Purpose: To control odors in chemical toilets on buses, trains, and airplanes.
Suggested Concentration of BIOBAN SP 100 Antimicrobial
1.0-1.5 oz per quart of water.
How To Apply: Dissolve antimicrobial in water.

**Application: Fire Extinguisher Solutions**
Purpose: To preserve foam-type solutions.
Suggested Concentration of BIOBAN SP 100 Antimicrobial
0.25-0.5% by wt of solution.
How To Apply: Add antimicrobial to solution.

**Application: Floor Wax Emulsions**
Purpose: For shelf preservation.
Suggested Concentration of BIOBAN SP 100 Antimicrobial
Add 0.1-0.5% by wt of emulsion.
How To Apply: Add to water phase of emulsion during formulating process.

**Application: Ink**
Purpose: For shelf preservation of dextrin-based watercolor printing inks.
Suggested Concentration of BIOBAN SP 100 Antimicrobial
0.025 - 0.5% by wt of formulation.
How To Apply: Add as a concentrated aqueous solution to the formulation.

**AApplication: Laundry Starch**
Purpose: To preserve liquid starch during shelf and use life.
Suggested Concentration of BIOBAN SP 100 Antimicrobial
0.025 - 0.2% by wt of formulation.
How To Apply: Add as a concentrated aqueous solution to the formulation.

**Application: Leather**
Purpose: To prevent slippage of hair on furs in soaking liquors; to prevent deterioration of treating and finishing formulations.
Suggested Concentration of BIOBAN SP 100 Antimicrobial
One part per 15 parts of water for soaking liquors 0.5% to 1.0% by wt for pastes, dressings, and finishes.
How To Apply: Add as a concentrated aqueous solution to the formulation.

**Application: Paint**
Purpose: For preservation of decomposable raw material solutions or dispersions during paint manufacturing or storage. For shelf preservation of water-based paints.
Suggested Concentration of BIOBAN SP 100 Antimicrobial
Minimum of 0.6% by wt of formulation.
How To Apply: Add as a concentrated aqueous solution to the formulation.

**Application: Polyvinyl Alcohol**
Purpose: To preserve solutions of the alcohol.
Suggested Concentration of BIOBAN SP 100 Antimicrobial
0.6-0.8% by wt of solution.
How To Apply: Add antimicrobial to solution.

**Application: Pulp and Paper**
Purpose: To preserve coatings, sizings, and printing colors based on starch, animal and vegetable protein, and latex.
Suggested Concentration of BIOBAN SP 100 Antimicrobial
0.1-1.0% by wt of material preserved.
How To Apply: Add as a concentrated aqueous solution.

**Application: Textiles**
Purpose: To To preserve processing materials and finished yarns and cloth during storage.
Suggested Concentration of BIOBAN SP 100 Antimicrobial
0.1-0.75% by wt of materials treated.
How To Apply: Add as a concentrated aqueous solution.

### APPLICATIONS NOT REGISTERED FOR USE IN CALIFORNIA

**Application: Construction Material Preservation**
Purpose: To control the growth of fungi and bacteria in building materials such as mastics, caulks, joint cements, spackling, grouting and concrete admixtures.
Suggested Concentration of BIOBAN SP 100 Antimicrobial
0.025 - 0.4% by wt of formulation.
How To Apply: Add at a suitable point during the manufacture. BIOBAN SP 100 may be premixed with water prior to addition to reduce incorporation time into the formulation.

**Application: Polymer Latex Dispersions and Emulsions**
Purpose: To preserve synthetic and natural polymer latices in manufacture and storage; including acrylic, styrene/butadiene, ethylene/vinylacetate, vinyl/acrylic and biopolymer based systems.
Suggested Concentration of BIOBAN SP 100 Antimicrobial
Add 0.1 - 1.0% by wt of emulsion.
How To Apply: Add to the latex or solutions slowly with agitation by premixing into a concentrated aqueous solution.

**Application: Metalworking Fluids**
Purpose: To prevent decomposition of oils, emulsifying agents, and other components.
Suggested Concentration of BIOBAN SP 100 Antimicrobial
Add BIOBAN SP 100 to yield 0.05 to 0.5% by wt. in diluted metalworking fluid.
How To Apply: Add as a concentrated aqueous solution to the use dilution of the metalworking fluid or to the concentrate prior to dilution.

**Application: Slurries**
Purpose: To control the growth of fungi and bacteria in aqueous based slurries.
Suggested Concentration of BIOBAN SP 100 Antimicrobial
Add 0.015 - 0.6% by wt of slurry.
How To Apply: Add as a concentrated aqueous solution at a suitable point during the manufacture, container loading/filling, shipment or storage of the slurry.

**Application: Wood and wood products**
Purpose: To protect from mold, mildew, and sapstain.
Suggested Concentration of BIOBAN SP 100 Antimicrobial
Construction woods: 1-4% by wt of solution.
Pallets, fruit and vegetable pallets: 1-3% by wt of solution.
How To Apply: Apply as an aqueous dip, or spray by preparing an aqueous solution.

**Application: Polymers and plastics**
Purpose: To protect the following systems from deterioration during manufacture, storage and service life: acrylic, PVC, polyvinylacetate (PVA), vinyl/acrylic-based, styrene butadiene, polyester-based, polyurethane-based, other polymer dispersions, rubber.
Suggested Concentration of BIOBAN SP 100 Antimicrobial
0.15-0.7% by wt of material to be protected.
How To Apply: Add at a suitable point during the manufacture.

**Application: Biopolymers**
Purpose: To protect from deterioration during manufacture, storage, and service life.
Suggested Concentration of BIOBAN SP 100 Antimicrobial
0.15-0.3% by wt of material to be protected.
How To Apply: Add at a suitable point during the manufacture.

**Application: Photographic solutions**
Purpose: To protect from deterioration during manufacture, storage, and service life.
Suggested Concentration of BIOBAN SP 100 Antimicrobial
0.1-0.4% by wt of material to be protected.
How To Apply: Add at a suitable point during the manufacture.

**Application: Dyes, Tints, Pigments and Filler Suspensions**
Purpose: To protect from deterioration during manufacture, storage, and service life.
Suggested Concentration of BIOBAN SP 100 Antimicrobial
0.07-0.3% by wt of materials treated.
How To Apply: Add at a suitable point during the manufacture.

**Application: Cleaning Solutions**
Purpose: To protect from deterioration during manufacture, storage, and service life.
Suggested Concentration of BIOBAN SP 100 Antimicrobial
0.1-0.6% by wt of solution.
How To Apply: Add at a suitable point during the manufacture.

**Application: Wax Emulsions and Polishes**
Purpose: To protect from deterioration during manufacture, storage, and service life.
Suggested Concentration of BIOBAN SP 100 Antimicrobial
0.1-0.6% by wt of emulsion.
How To Apply: Add at a suitable point during the manufacture.