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4		Reg		ivision (H750 St., S.W.	(5C)		OCT 1 3 1998
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	l <u></u>	Reregistra		CONDITIONAL			
	(under FIFRA, as	amended)					
						Name of Pestic	
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	Name and Address	of Registrant (in	nclude ZIP	Code):			
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	Norcross,	STATE AND STATE AND STATES			accented in c	Onvection with th	is registration must
	Note: Changes in labeling differing in success of the facepted in connection with this registration must be submitted to and accepted by the Register vision prior to use of the label in commerce. In any correspondence on this product always rectioned above EPA registration number.						
	On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.						
	In order to prot cancel the regis with the registr	ect health and the tration of a pest	e environme icide in ac t under thi	nt, the Admin cordance with s Act is not	<pre>istrator, on hi the Act. The to be construed</pre>	is motion, may at acceptance of an 1 as giving the r	oduct by the Agency. any time suspend or y name in connection egistrant a right to
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	2. Add the phrase EPA Registration Number "EPA Reg. No.						
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	Regulatory Management Branch 1 Antimicrobial Division (7510W)						
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page 2 EPA Reg. No. 70871-2

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3. This product has been registered as a microbiostatic agent to formulate products used for <u>materials preservation only</u>; neither this product, nor articles treated with this product, may state or imply any public health claims.

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4. Articles or substances treated with this product will be exempt from FIFRA regulation pursuant to 40 CFR 152.25(a) only if the intended use for incorporating this material into the treated article or substance is for protection of the article or substance itself.

#### The following comments apply to the master label.

1. On page one, increase the font size of the signal word "WARNING".

2. On page one, revise the phrase "microbiostatic agent & protectant" to read as follows "microbiostatic agent".

3. On page two in the "Precautionary Statements" section, increase the font size of the signal word "WARNING" and change the statement which reads "Avoid contact with skin or clothing and avoid breathing vapor." to read as follows "Avoid contact with skin and avoid breathing vapor."

The following comments apply to the collateral label.

1. On page one change the statement which begins as follows "As an active ingredient for formulating microbiocides for use..." to read as follows "As an active ingredient for formulating microbiostats for use..."

2. On page four in the "Precautionary Statements" section, increase the font size of the signal word "WARNING" and change the statement which reads "Avoid contact with skin or clothing and avoid breathing vapor." to read as follows "Avoid contact with skin and avoid breathing vapor."

3. On page four in the "Storage and Disposal" section the Pesticide Storage statement should begin as follows "Store in original, tightly closed containers below 30 C (86 F) and above 0 C (32 F) in a secure area inaccessible to children and away from food or feed. AM 500 I has a minimum..."

4. On page four in the "Directions for Use" section include the statement "It is a violation of Federal Law to use this product in a manner inconsistent with its labeling."

5. The Agency suggests that your collateral label include a "Statement of Practical Treatment" which is in agreement with the master label.

page 3 EPA Reg. No. 70871-2

Refer to PR Notice 92-5 for Agency requirements regarding the Storage Stability study.

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.

A stamped copy of the master label is enclosed for your records. Since the collateral label should remain in agreement with the master label, the Agency will not stamp the collateral label. Submit one (1) copy of the final printed label prior to the release of the product for shipment.

If you have any questions concerning this letter, please contact Tracy Lantz at (703) 308-6415.

Sincerely,

Velma Noble Product Manager 31 Regulatory Management Branch 1 Antimicrobial Division (7510W)

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**BioShield Technologies, Inc.** 

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4405 International Boulevard, Suite B109 Norcross, GA 30093 iciation of

# **BioShield AM 500 I**

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## **MICROBIOSTATIC AGENT & PROTECTANT**

A Silicone Quaternary Ammonium Salt (For Manufacturing Use Only)

Active Ingredient: Inert Ingredients:	3-(trimethoxysilyl) propyldimethyloctadecyl ammonium chloride	
TOTAL INGREDIENTS:		100.0%

## KEEP OUT OF REACH OF CHILDREN WARNING

Lot No.

EPA Reg. No. xxxx-xx

EPA EST. xxxx-GA-xx

NET CONTENTS: 2, 4, 8, 16, 20, 22, or 36 fluid oz.; 0.5, 1, 5, 55, 150, or 300 gal.

### STATEMENT OF PRACTICAL TREATMENT

IF IN EYES: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention. IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention. attention.

IF ON SKIN: Wash with plenty of soap and water. Get medical attention.

IF SWALLOWED: Call a doctor or get medical attention. Do not induce vomiting or give anything by mouth to an unconscious person. Urink promptly a large quantity of milk, eggwhites, gelatin solution, or, if these are not available, drink large quantities of water. Avoid alcohol

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ACCEPTED
 with COMMENTS
 in EPA Letter Dated:

**DCT** 1 3 1998

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

70871-2

### PRECAUTIONARY STATEMENTS

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### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Warning. Causes substantial but temporary eye injury. Harmful if absorbed through skin or inhaled. Do not get in eyes or on clothing. Avoid contact with skin or clothing, and avoid breathing vapor. Wear protective eyewear (goggles or face shield). Wash thoroughly with soap and water after handling. 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.

De-activation of AM 500 I can be achieved by the addition of anionic surfactant in quantity equivalent to that of AM 500 I.

### DIRECTIONS FOR USE

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

AM 500 I can be incorporated directly into formulations used to make the end products listed under "approved uses."

For formulating use into end-use products.

ACCEPTED with COMMENTS in EPA Letter Dated: OCT 1 3 1998 Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No.

70871-2

### APPROVED USES

AM 500 I is approved for use in formulating microbiostats for use in laundry additives, carpet treatment products, upholstery and drapery treatment products.

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The active ingredient in AM 500 I is effective against fungi (including mold and mildew) and algae as a static agent.

AM 500 I can be used for incorporation into and treatment of the following items or substrates to impart bacteriostatic/fungistatic activity:

- · Air filters for furnaces, air-conditioners, air purification devices, automobiles, recirculating air handling systems;
- Air filters/materials;
- Aquarium filter material;
- · Bed sheets, blankets, and bedspreads;
- Buffer pads (abrasive and polishing);
- Carpets and draperies;
- Fiberfill for upholstery, sleeping bags, apparel, etc., where the fiber is cotton, natural down, nylon, polyester, rayon, or wool;
- Fiberglass ductboard;
- Fire hose fabric;
- Humidifier belts;
- Mattress pads and ticking;
- Men's underwear and outerwear;
- Non-woven disposable diapers;
- Non-woven polyester;
- Outerwear apparel;
- Disposable polyurethane foam cushions for Lapidus Airfloat Systems;
- · Polyurethane foam for household, industrial, and institutional sponges and mops;
- Polyurethane and polyethylene foam, when covered;
- Polyurethane foam for packaging and cushioning in non-food contact applications;
- Polyurethane foam used as a growth medium for non-food-crops and plants;
- Pre-moistened towelettes and tissue wipes (these do not impart pesticidal properties);
- · Roofing materials defined as shingles, roofing granules, wood shakes, felt, stone and synthetic overcoats;
- · Sand bags, tents, tarpaulins, sails, and ropes;
- Athletic and casual shoes;
- Shoe insoles;
- Shower curtains; -
- Socks comprised of nylon, nylon/orlon, cotton/nylon, linen/Lycra, acrylic/polypropylene/nylon/Lycra, wool/silk/nylon/Lycra and wool/acrylic/nylon/Lycra;
- Throw rugs;
- Toweling made of 100 percent cotton, 100 percent polyester, and blends of the two fibers;
- Toilet tank and seat covers;
- Urnbielias;
- Upholstery made of acetates, acrylics, cotton, fiberglass, nylon, polyester, polyethylene, polyolefins, polypropylene, rayon, spandex, vinyl, and wool;
- Vacuum cleaner bags and filters;

ACCEPTED with COMMENTS in EPA Letter Dated:

CCT 1 3 1998

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

70871-2

- Vinyl paper-wallpaper for non-food contact s laces;
- Disposable wiping cloths that can be used for multiple purposes such as dusting or washing furniture, cars, walls, windows, floors, appliances, dishes, counter tops, etc.; the wiping cloths do not impart pesticide properties;

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- Women's hosiery; and
- Women's intimate apparel.

### EPA REGISTRATION REQUIREMENTS

The applications for which this product is used may require approval by the Environmental Protection Agency on an end-use basis in regard to claims made thereof. Formulators are responsible for satisfying registration requirements for their products.

### STORAGE AND DISPOSAL

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

Pesticide Storage: Store in original, tightly closed containers below 30°C (86°F) and above 0°C (32°F) in a secure area inaccessible to children and away from food or feed. AM 500 I has a minimum shelf life of 12 months from the date of shipment from BioShield.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: [*Plastic*] Triple rinse (or equivalent). Then offer for recycling or 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. [*Metal*] Triple rinse (or equivalent). Then offer for recycling, reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

FOR MORE INFORMATION CONCERNING THIS PRODUCT, PLEASE CONSULT THE MATERIAL SAFETY DATA SHEET (MSDS). THE MSDS CAN BE OBTAINED BY WRITING BIOSHIELD TECHNOLOGIES, INC. AT 4405 INTERNATIONAL BOULEVARD, SUITE B109, NORCROSS, GEORGIA, 30093. With COMMENTS in EPA Letter Dated:

### IMPORTANT: WARRANTY AND DISCLAIMER INFORMATION

<u>> 007</u> 1 3 1993

BioShield Technologies, Inc., warrants that the product conforms to its chemical description and is **Pasion BioShield Technologies**, Inc., warrants that the product conforms to its chemical description and is **Pasion BioShield Technologies**, Inc., warrants that the product conforms to its chemical description and is **Pasion BioShield Technologies**, Inc., warrants that the product conforms to its chemical description and is **Pasion BioShield Technologies**, Inc., warrants that the product conforms to its chemical description and is **Pasion BioShield Technologies**, Inc., warrants that the product conformations of use; but the warrant of the pesion and particular purpose does not extend to the use of this product contrary to bulletin instructions, or under set of the pesion BioShield to seller, and buyer assumes the risk of any such use. 70871-2

BIOSHELD BPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY, INCLUDING THE WARRANTY OF MERCHANTABILITY.

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## COLLATERAL LABELING

BioShield Technologies, Inc.

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4405 International Boulevard, Suite B109 Norcross, GA 30093 820

# Information About Microbiostatic Agents

# AM 500 I - FOR MANUFACTURING USE ONLY

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U.S. Environmental Protection	
Agency Registration Number	
Туре	Silicone quaternary ammonium salt
Physical Form	Low-viscosity liquid
Special Properties	Surface bondability
Primary Uses	As an active ingredient for formulating
	microbiocides for use in laundry additives,
	carpet treatment products, upholstery and
	drapery treatment products to give a
	bacteriostatic, fungistatic, mildewstatic activity

## **TYPICAL PROPERTIES**

These values are not intended for use in preparing specifications

	' CH₃			
Structure	[(CH₃O)₃Si(CH₂)₃N−C18	H <sub>37</sub> ]⁺Cl⁻		
	 CH <sub>3</sub>			
Concentration	5.0%			
Appearance	Colorless liquid			
Solubility	•			
Thermal Stability °C (°F)	Stable to 30°C (86°F)			
Specification Writers: Please contact BioShield for informatio	n regarding specifications	• • • • • • • •		
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### DESCRIPTION

AM 500 I is BioShield's designation for 3-(trimethoxysilyl) propyloctadecyldimethyl ammonium chloride containing 5 percent active ingredient by weight. Alkoxysilanes of this nature have been shown to form durable bonded coatings to a number of materials (see "References" section).

AM 500 I offers users the following features:

- Good durability—BIOSHIELD AM 500 I imparts biostatic activity to the surface of a wide variety of substrates.
- Increased efficiency—through proper application, durable bacteriostatic, fungistatic and algistatic surfaces can be attained with a minimum amount of AM 500 I.

### BENEFITS

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The following benefits are derived when a formulation containing the active ingredient is applied to a surface:

- Provides freshness and combats deterioration caused by bacteria, fungi, and algae.
- Inhibits growth of bacteria and mildew on the treated article.
- Prolongs the life of a article by inhibiting the growth of bacteria and mildew.
- Resists development of bacterial and fungal odors.
- Retains freshness by resisting the growth of odor-causing bacteria and mildew (fungus).
- Provides a chemical treatment that enables fabrics to resist odors.
- Provides a unique chemical treatment that resists mildew and bacteria growth and imparts odor resistance.
- Product performance with little degradation up to 375°F.

Materials treated with formulations containing the microbiostatic agent AM 500 I are preserved by the bacteriostatic, fungistatic and algistatic action imparted by the active ingredient. AM 500 I inhibits the growth of microorganisms that are responsible for causing odor, discoloration and deterioration. It also provides residual inhibition of microorganisms to aid in the control of these deleterious effects. AM 500 I forms a coating on a wide variety of substrates and microbiostatic action is exhibited on contact.

### APPROVED USES

AM 500 I is approved for use in formulating microbiostats for use in laundry additives, carpet treatment products, upholstery and drapery treatment products.

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The active ingredient in AM 500 I is effective against fungi (including mold and mildew) and algae as a static agent.

AM 500 I can be used for incorporation into and treatment of the following items or substrates to impart bacteriostatic/fungistatic activity.

- Air filters for fumaces, air-conditioners, air purification devices, automobiles, recirculating air handling systems;
- Air filters/materials;
- Aquarium filter material;
- · Bed sheets, blankets, and bedspreads;
- Buffer pads (abrasive and polishing);
- Carpets and draperies;
- Fiberfill for upholstery, sleeping bags, apparel, etc., where the fiber is cotton, natural down, nylon, polyester, rayon, or wool;
- Fiberglass ductboard;
- Fire hose fabric;

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- Humidifier belts;
- Mattress pads and ticking;
- Men's underwear and outerwear;
- Non-woven disposable diapers;
- Non-woven polyester;
- Outerwear apparel;
- · Disposable polyurethane foam cushions for Lapidus Airfloat Systems;
- · Polyurethane foam for household, industrial, and institutional sponges and mops;
- · Polyurethane and polyethylene foam, when covered;
- · Polyurethane foam for packaging and cushioning in non-food contact applications;
- Polyurethane foam used as a growth medium for non-food crops and plants;
- Pre-moistened towelettes and tissue wipes (these do not impart pesticidal properties);
- Roofing materials defined as shingles, roofing granules, wood shakes, felt, stone and synthetic overcoats;
- · Sand bags, tents, tarpaulins, sails, and ropes;
- Athletic and casual shoes;
- Shoe insoles;
- Shower curtains;
- Socks comprised of nylon, nylon/orlon, cotton/nylon, linen/Lycra, acrylic/polypropylene/nylon/Lycra, wool/silk/nylon/Lycra and wool/acrylic/nylon/Lycra;
- Throw rugs;
- Toweling made of 100 percent cotton, 100 percent polyester, and blends of the two fibers;
- Toilet tank and seat covers;
- Umbrellas;
- Upholstery made of acetates, acrylics, cotton, fiberglass, nylon, polyester, polyeting, polyolefins, polypropylene, rayon, spandex, vinyl, and wool;
- Vacuum cleaner bags and filters;
- Vinyl paper-wallpaper for non-food contact surfaces;
- Disposable wiping cloths that can be used for multiple purposes such as dusting or washing furniture, cars, walls, windows, floors, appliances, dishes, counter tops, etc.; the wiping cloths do not impart pesticide properties;
- Women's hosiery; and
- Women's intimate apparel.

### DIRECTIONS FOR USE

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AM 500 I can be incorporated directly into formulations used to make the end products listed in this bulletin.

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### PRECAUTIONARY STATEMENTS

Warning. Causes substantial but temporary eye injury. Harmful if absorbed through skin or inhaled. Do not get in eyes or on clothing. Avoid contact with skin or clothing, and avoid breathing vapor. Wear protective eyewear (goggles or face shield). Wash thoroughly with soap and water after handling. 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.

Inactivation of solutions containing AM 500 I may be accomplished by one of the following methods:

- addition of an anionic surfactant or detergent in quantity equivalent to that of AM 5001 in solution; or
- addition of Triton X-100 nonionic detergent at a final concentration of 10,000 ppm (1.0 percent volume/volume) or greater to bath solutions up to 1.0 percent volume/volume of AM 500 l.

Every effort should be made to contain accidental spills of AM 500 I to the immediate area. This may be accomplished by the use of sandbags to confine the spill to facilitate cleanup and disposal. Contaminated sand may then be disposed of by burial in an approved landfill. Many spills may be cleaned up with rags by wiping and/or mopping and allowing the liquid to absorb into the fabric. The rags may then be disposed of by incineration.

Floor drains in areas of material use should be protected with sandbags to contain accidental spills.

### STORAGE AND DISPOSAL

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

Pesticide Storage: Store in original, unopened containers below 3°C (86°F) and above 0°C (32°F). AM 500 I has a minimum shelf life of 12 months from the date of shipment from BioShield.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

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Container Disposal: [*Plastic*] Triple rinse (or equivalent). Then offer for recycling or 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. [*Metal*] Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

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### Before handling, read product label in its entirety

### IMPORTANT: WARRANTY AND DISCLAIMER INFORMATION

BioShield Technologies, Inc., warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated in this bulletin when used in accordance with directions under normal conditions of use; but this warranty of fitness for a particular purpose does not extend to the use of this product contrary to bulletin instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.

BIOSHIELD SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY, INCLUDING THE WARRANTY OF MERCHANTABILITY.

### REFERENCES

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- 12. McGee, J.G., Malek, J.R., and White, W.C. "New Antimicrobial Treatment for Carpet Applications." Am. Dyestuff Rep., 1983, 6:56-59.
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- 14. Hales, M.G., Sorkin, M.E., and White, W.C. "Antimicrobial Treatments, Part II: Types and Considerations for Use." *Cleaning and Restoration*", 1986, Vol. 24, Num. 4, 13-15.
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