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

AUG - 8 2011

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

R. Bruce Jaeger
Agent for Chem-Tex Laboratories
Health & Environmental Horizons, Ltd
2851 South Haven Road
Annapolis, MD 21401

Subject: ChitoSante' [BacShield]
EPA Registration No.81446-1,
Amendment Date: 08/3/2011
EPA Receipt Date: 08/4/2011

Dear Mr. Jaeger:

The following amendment, submitted in connection with registration under section the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable.

Proposed Amendment:

- Revised labeling per December 22, 2010

General Comments

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

Should you have any questions concerning this letter, please contact me by telephone at (703) 308-6416 or by e-mail at Campbell-mcfarlane.jacqueline@epa.gov or Jaclyn Carl by telephone at (703) 347-0213 or by e-mail at carl.jaclyn@epa.gov.

Sincerely,

Jacqueline Campbell-Mcfarlane
Product Manager
Regulatory Management Branch II
Antimicrobials Division (7510P)

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

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

[illegible] 1, 2011

K. Bruce Jaeger
Agent for Chem-Tex Laboratories
Health & Environmental Horizons, Ltd.
2851 South Haven Road
Annapolis, MD 21401

Subject: [illegible] Fluorescent
EPA Registration No. 81644-1,
Amendment Date: [illegible] 2011
EPA Receipt Date: [illegible] 2011

Dear Mr. Jaeger:

The following amendment, submitted in connection with registration under section 3 of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable:

Proposed Amendment:

- Revised labeling per December 22, 2010

General Comments:

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

Should you have any questions concerning this letter, please contact me by telephone at (703) 308-8179 or by e-mail at Campbell.mylene@epa.gov or Jaclyn Cad by telephone at (703) 347-8123 or by e-mail at cad.jaclyn@epa.gov.

Sincerely,

Mylene Campbell
Product Manager
Regulatory Management Branch II
Antimicrobials Division (7510P)

ChitoSante´ [BacShield]

Antimicrobial for Textiles and Surfaces

Inhibits Growth and Odor from Bacteria, Mold, Mildew and Fungi

	% w/w
ACTIVE INGREDIENT:	
Chitosan (Poly-D-Glucosamine)	6.0%
OTHER INGREDIENTS:	94.0%
Total	100.00%

KEEP OUT OF REACH OF CHILDREN
CAUTION

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION
Causes moderate eye irritation. Avoid contact with eyes. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

FIRST AID STATEMENTS

IF IN EYES	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.

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

EPA Reg. No. 81446-1
EPA Est. No. 081446-NC-001

Net Contents:

Chem-Tex Laboratories, Inc.
2725 Armentrout Dr
Concord, NC 28025

ACCEPTED
AUG - 8 2011
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No. 81446-1

ENVIRONMENTAL HAZARDS

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or public waters unless in accordance with the requirements of 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 into sewer without previously notifying the sewage treatment plant authority. For guidance, contact your State Water Board or regional Office of the EPA.

NOTICE OF WARRANTY

Chem-Tex Laboratories, Inc. warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label only when used in accordance with the label directions under normal conditions of use. Chem-Tex Laboratories, Inc. makes no other express or implied warranties either of merchantability or fitness for a particular use. Handling, storage and use of the product by Buyer or User are beyond the control of Chem-Tex Laboratories, Inc. and Seller. Risks such as ineffectiveness or other unintended consequences resulting from, but not limited to, failure to follow label directions will be assumed by the Buyer or User. In no case will Chem-Tex Laboratories, Inc. or Seller be held liable for consequential, special or indirect damages resulting from the handling, storage or use of this product.

The terms of this Limited Warranty and Disclaimer cannot be varied by any written or verbal statements or agreements. No employee or agent of the seller is authorized to vary or exceed the terms of this Limited Warranty and Disclaimer in any manner.

Produced by:
Chem-Tex Laboratories, Inc.
2725 Armentrout Dr
Concord, NC 28025

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. ChitoSante' [BacShield] is intended as a treatment in order to give antimicrobial and antifungal activity to the treated materials.

ChitoSante' [BacShield] inhibits the growth of non-public health organisms such as bacteria, mold, mildew and fungus that cause odor, stains, discoloration, decay and deterioration of the treated materials.

Distributors of products containing ChitoSante' [BacShield] may not make claims of antimicrobial activity other than the protection of the treated material against the growth of bacteria, mold, mildew and fungi that cause odor, stains, discoloration, decay, and deterioration in or on the treated product.

See 40 C.F.R.152.25 (a) for further guidance about treated article claims.

COMMERCIAL/INDUSTRIAL USE

ChitoSante' [BacShield] is used in the finishing process of manufacturing textiles. It is generally applied during or after the dyeing process, at a rate of 0.1- 4.0% owg ("on weight of goods") or, relative to the dry weight of the textiles. This finishing process must provide thorough penetration by ChitoSante' [Bac-Shield] solution. Following this procedure, textile materials must be dried at a temperature of 150-338 degrees F, dependent upon the fiber content of the textile material.

Manufacturing of carpet: ChitoSante' [BacShield] can be applied to the face or the back of the carpet after the dyeing process. Apply by spray, foam, kiss roll, or flooded nip. Apply at a rate of 1-2% on the face weight or 0.3 to 0.6 grams per square foot.

For surface applications to textiles, paper, leather, textile wall partitions, wallboard liner and other construction materials: Apply as a spray, direct surface application (kiss roll, flooded nip) or foam at a rate of 3-12 fluid ounces of ChitoSante' [BacShield] per gallon of water, depending upon surface texture and absorption qualities of textile.

Contact Chemtex Laboratories @ 800-532-5361 for questions pertaining to specific manufacturing processes.

DOMESTIC USES

As a cleaner:

ChitoSante' [BacShield] in a diluted solution, may be used as a cleaner to remove [odor-causing bacteria], [mold], [mildew], and [other organic matter] from surfaces [materials] prior to subsequent [treatment] [application] to inhibit [prevent] bacterial and [or] fungal [mold] growth on those surfaces [and] [or] [materials].

Mix 6 -12 ounces of ChitoSante' [BacShield] into one gallon of water to prepare cleaning solution. Use 6 ounces /gallon for general cleaning and 12 ounces per gallon for more severe applications.

Cleaning [Preparing the Surface] with ChitoSante' [BacShield]

[1] Apply ChitoSante' [BacShield] until area to be cleaned is thoroughly wet.

[2] Wipe or scrub area to loosen mold [dirt] [soil] [organic matter]

[3] Wipe with rag [cloth] to remove mold [dirt] [soil] [organic matter] from surface and dispose of rag [cloth]

Home use (washing machine): Add ChitoSante' [BacShield] to the fabric softener dispenser or directly onto laundry in washer. Dry laundry in dryer or allow to air-dry before use. See table below:

Table: Mixing instructions for a 1% Application Rate

Textile	Absorption	8 Gallons Small Load	12 Gallons Medium Load	15 Gallons Large Load
Nylon	Low	5 cups	7.5 cups	9.5 cups
Polyester	Moderate	2 cups	3 cups	4 cups
Cotton	High	1 cup	1.5 cups	1.75 cups

Home use (as an after-wash spray for laundry): Add 3-12 ounces ChitoSante' [BacShield] per gallon of water. Spray articles to be treated until thoroughly soaked. Dry article in dryer or allow to air-dry before use.

Amount of ChitoSante' [BacShield] for spray applications (1% application rate]

Textile	Absorption	ChitoSante' [BacShield] per gal of water
Nylon	Low	12 fl. oz/gal
Polyester	Moderate	6 fl oz/gal
Cotton	High	3 fl oz/gal

Note: Always test for staining in an inconspicuous area. ChitoSante' [BacShield] should not stain articles not stained by water alone.

Laundry:

For use in automatic washers:
Run laundry through entire rinse cycle.
Re-set washer to final rinse cycle
Add undiluted ChitoSante' [BacShield] to fabric softener receptacle as instructed in chart below, or pour undiluted directly onto laundry.
Repeat rinse cycle.
Dry laundry thoroughly
Apply to each load.

Washer Type:	Domestic/Coin Operated (less than 30 lb machines)	
	Front Load	Top Load
Cotton/Cotton blends	1.75 oz/load	4 oz/load
Nylon, polyester &	6.5 oz/load	15 oz/load

Other synthetics

As an after-wash treatment for clothing, linens, uniforms, textiles in general:
Mix 6 ounces [1.5 ounces] of ChitoSante' [BacShield] per gallon [quart] of water and fill hand held spray bottle or other suitable sprayer.
Remove laundry from washer after final spin cycle.
Spray each article with ChitoSante' [BacShield] solution.
Apply to damp articles as removed from the washer, or dried articles if they have been previously washed and dried.
Dry treated articles thoroughly before use.
Apply to each load.

Other Uses (Surfaces):

Porous Surfaces:

As a spray for textiles, paper and other porous surfaces such as but not limited to: awnings, bedding, car covers, boat covers, ceilings, curtains, drapes, linens, mattresses, pet bedding, pillows, shoes, umbrellas, upholstery, vehicle interiors, leather, textile wall partitions, wallboard liner, wallboard and other household or construction materials.

Areas to be treated with ChitoSante' [BacShield] must be thoroughly cleaned to remove dirt, mold, mildew, fungi, or other organic matter. ChitoSante' [BacShield] can be used as a cleaner prior to subsequent treatment [application] with [of] ChitoSante' [BacShield]. **See section titled "Cleaning with ChitoSante' [BacShield]" for instructions in using ChitoSante' [BacShield] as a cleaner**

To treat porous surfaces, mix 6 ounces [1.5 ounces] of ChitoSante' [BacShield] per gallon [quart] of water and fill hand held spray bottle or other suitable sprayer.
Apply ChitoSante' [BacShield] solution until thoroughly damp. One gallon of solution covers approximately 270 sq. ft. Allow to dry before use.

Table: Amount of ChitoSante' (BacShield) Solution for Spray Applications

Textile	Absorption	Solution	Light Material	Heavy Material
		fl. oz/gal	fl. oz/sq yd	fl. oz/sq yd
Nylon	Low	12	0.06	0.25
Polyester	Moderate	6	0.12	0.50
Cotton	High	3	0.25	1.00

Non-food Hard Contact surfaces:
As a spray or mist for non-food hard contact surfaces, such as, but not limited to: fiberglass, masonry, metal, particle board, vinyl, wood, garbage cans, laminated

surfaces, desks, window sills and other interior and exterior surfaces.
Areas to be treated with ChitoSante' [BacShield] must be thoroughly cleaned to remove dirt, mold, mildew, fungi, or other organic matter. ChitoSante' [BacShield] can be used as a cleaner prior to subsequent treatment [application] with [of] ChitoSante' [BacShield].
See section titled "Cleaning with ChitoSante' [BacShield]" for instructions in using ChitoSante' [BacShield] as a cleaner

To treat non-food hard contact surfaces, mix 6 ounces [1.5 ounces] of ChitoSante' [BacShield] per gallon [quart] of water and fill hand held spray bottle or other suitable sprayer.
Apply ChitoSante' [BacShield] solution to surfaces until thoroughly wet. Avoid runoff. Allow to dry before use.

ATHLETIC/SPORTS EQUIPMENT/FACILITIES
Laundry
For use in automated washers:
Run laundry through entire rinse cycle, and then re-set washer to final rinse cycle.
Add ChitoSante' [BacShield] to fabric softener receptacle or directly onto laundry.
Repeat rinse cycle, then dry laundry thoroughly. Apply to each load.

Washer Type:	Domestic/Coin Operated (less than 30 lb machines)	
	Front Load	Top Load
Cotton/Cotton blends	1.75 oz/load	4 oz/load
Nylon, polyester & Other synthetics	6.5 oz/load	15 oz/load
	Large Capacity Washers (30 lb and greater)	
Cotton/cotton blends	0.125- 1.0 oz/gal of water in final rinse cycle	
Nylon, polyester & Other synthetics	0.5- 4.0 oz / gal of water in final rinse cycle	

Add undiluted ChitoSante' [BacShield] to the final rinse cycle, along with fabric softener, if used. Use the lowest water level setting. Apply to each load. Laundry may be air-dried if desired.
Dry thoroughly before use.

As an after-wash treatment for clothing, linens, uniforms, and textiles in general:
Mix 6 ounces [1.5 ounces] of ChitoSante' [BacShield] into one gallon [quart] of water.
Remove laundry from washer after final spin cycle. Spray each article with ChitoSante' [BacShield] solution, then dry thoroughly before use. Apply to each load. ChitoSante' [BacShield] solution may also be applied to dry clothing. Spray each article to be treated until thoroughly damp. Dry thoroughly before use. Articles may be air-dried if desired.

See section titled "Cleaning with ChitoSante' [BacShield]" for instructions in using ChitoSante' [BacShield] as a cleaner.

Athletic equipment, including but not limited to, protective helmets, pads, blocking dummies:
First, clean articles to be treated. If disinfecting or sanitizing is required, use an EPA registered disinfectant or sanitizer after article has been cleaned.
Mix 6 ounces of ChitoSante' [BacShield] into one gallon of water.
Apply as a spray or mist until surface is completely moist. Apply weekly. Avoid runoff. Allow to dry thoroughly before use.

Exercise equipment/surfaces/lockers/mats:
First, clean articles to be treated. If disinfecting or sanitizing is required, use an EPA registered disinfectant or sanitizer after article has been cleaned.
Mix 6 ounces of ChitoSante' per gallon of water and apply as a spray, mist or wipe with soaked cloth until surface is thoroughly damp. Avoid runoff. Allow to dry thoroughly before use. Apply daily to exercise equipment, surfaces and mats. Apply weekly to lockers.

PROFESSIONAL APPLICATORS – DIRECTIONS FOR USE

Professional Mold Remediators Refer to Section Titled "Mold/Mildew Remediation and Prevention" or call Chemtex Laboratories @ 800-532-5361 for specific questions.

ChitoSante' [BacShield] may be applied by hand sprayer, garden sprayer, airless/compression sprayer, cold-fogger, brush, roller, cloth, or immersion.
Carpet: Mix 12 ounces of ChitoSante' [BacShield] into one gallon of water.

Apply to clean carpet as a spray or mist. One gallon of solution covers approximately 540 square feet of surface area. Allow carpet to dry before use.

In homes, offices, commercial, hospitality, or industrial settings apply each time carpet is cleaned or as needed for odors due to mold, mildew, fungi, or bacteria.

In athletic facilities, carpet must be cleaned regularly and ChitoSante' [BacShield] applied weekly.

Re-apply ChitoSante' [BacShield] after each carpet cleaning.

Synthetic Turf: Mix 6 ounces of ChitoSante' per gallon of water. Apply as a spray at a rate of 1 gallon of solution per 270 square feet of synthetic turf. If less water is desired in/on turf, mix at a rate of 12 ounces of ChitoSante' per gallon of water and apply at a rate of one gallon of solution per 540 square feet of synthetic turf. Allow to dry before use. Apply

every three months.

Vehicle interiors: Dilute 6 ounces of ChitoSante' with 1 gallon of water, spray 3 ounces of solution per average size car. Use more solution to cover larger vehicles.

Mold /Mildew Remediation and Prevention

Note: The information contained in this section is not intended to provide comprehensive instructions for mold removal and remediation, but is intended as a general guide for mold removal and prevention and to provide sources for additional information pertaining to mold, mold removal, and prevention. Mold can have serious health consequences in certain individuals. Consult a certified professional mold remediator for areas larger than 30 square feet.

"A Brief Guide to Mold, Moisture and Your Home"
http://www.epa.gov/mold/moldcleanup.html

Mold Cleanup Guidelines ***http://www.epa.gov/mold/cleanupguidelines.html***

What to Wear When Cleaning Moldy Areas ***http://www.epa.gov/mold/whattowear.html***

Please note that the Occupational Safety and Health Administration (OSHA) requires that respirators fit properly (fit testing) when used in an occupational setting; consult OSHA for more information (800-321-OSHA or www.osha.gov).

Hidden Mold
http://www.epa.gov/mold/hiddenmold.html#CleanupandBiocides

Institute of Inspection, Cleaning and Restoration Certification (IICRC)
(360) 693-5675
www.iicrc.org EXIT Disclaimer
Information on and standards for the inspection, cleaning, and restoration industry

Centers for Disease Control and Prevention (CDC)
(800) 311-3435
www.cdc.gov EXIT Disclaimer

The New York City Department of Health and Mental Hygiene *(212) 788-4290 / 4288.*
Guidelines on Assessment and Remediation of Fungi in Indoor Environments EXIT Disclaimer

Recommended Web Sites for Mold Removal/Remediation Information:

Health & Environmental Horizons, Ltd
2851 South Haven Road
Annapolis, MD 21401
410-94-6112/301-261-3114 (phone/fax)

FAX
2 pages

DATE: August 4, 2011

TO: Jaclyn Carl
Biologist, RMB II
AD (8221S)
OPP/EPA

FAX NO: 703-308-6467

FROM: R. Bruce Jaeger
President
Health & Environmental Horizons

MESSAGE: EPA Form 8570-1 for Master Label for EPA Reg. No. 81446-1 is attached as requested.
Thanks.

Bruce

United States
Environmental Protection Agency
Washington, DC 20460

____ Registration
____ Amendment
__X__ Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number 81446-1

2. EPA Product Manager Adam Heyward PMM

3. Proposed Classification
__X__ Non ____ Restricted

4. Company/Product Name Bio-Shield

5. Name and Address of Applicant (Include ZIP Code)
Chem-Tex Laboratories, Inc.
P.O. Box 5229
Concord, NC 21607

Check if this is a new address

6. Signified Pending, in accordance with FIFRA Section 10(d)(2)(B), my request to withdraw or terminate in correspondence and labeling for

Product Name: _____

Section - II

⊖ Amendment - Explain below.

⊖ Resubmission in response to Agency letter dated _____

⊖ Registration - Explain below.

⊖ Final printed labels in response to Agency letter dated
_____

⊖ "Me Too" Application.

X Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)
Master label has been revised and updated to incorporate EPA recommendations and to clarify specific uses.

Section - III

1. Indicate Type Product Will be Packaged In

Child Resistant Packaging
⊖ Yes*
X No

* Justification must be submitted

Safe Packaging
⊖ Yes
X No

If "Yes", List the container Packaging used

When Suitable Packaging
⊖ Yes
X No

If "Yes", No. per container

2. Type of Container
⊖ Metal
X Plastic
⊖ Glass
⊖ Paper
⊖ Other (Specify) _____

3. Location of the Contains Information
X Label ⊖ Container

4. Sized(s) Retail Container: 2.5 and 50 grams

5. Location of Label Directions
X On Label
⊖ On Labeling accompanying product

6. Manner in Which label is Affixed to Product
X Paper glued
⊖ Stenciled
⊖ Lithography ⊖ Other _____

Section - IV

1. Consult Form Complete items directly below for identification of individual to be contacted if necessary, to process this application.

Name R. Bruce Jaeger

Title President; Health & Environmental Horizons, Ltd

Telephone No. (Include Area Code)
301-261-9491

Certification
I certify that the statements I have made on this form and all accompanying attachments 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 laws.

2. Signature

3. Title President
Health & Environmental Horizons, Ltd

4. Typed Name R. Bruce Jaeger

5. Date August 3, 2011

6. Date Application Received
(Stamped)

NORMI – National Organization for Remediators and Mold Inspectors
www.normi.org

Indoor Air Quality Association Inc
www.iaqa.org

Chemtex Laboratories Inc
www.bacshield.com

EPA – Environmental protection Agency
www.epa.gov

IICRC – Institute of Inspection, Cleaning and Restoration Certification
www.iicrc.org

Mold [Removal] [and] [or] [Prevention]
If mold is present refer to recommended web sites for accepted remediation practices. Refer to section titled "PPE- Personal Protection Equipment for Applicators" for appropriate protective equipment to wear.
ChitoSante' [BacShield] may be applied by hand sprayer, garden sprayer, airless/compression sprayer, cold-fogger, brush, roller, cloth, or immersion.

Small Areas - Affected surface areas less than 30 square feet:
If the affected area is easily replaceable, such as ceiling tiles, remove the [panel] [area], place in a trash bag, seal, and dispose of in normal trash. Area to be removed can be sprayed with ChitoSante' [BacShield] prior to removal to reduce likelihood of airborne spores. If the affected area cannot be easily removed, follow these steps.

[1] Eliminate [correct] any sources of water [moisture] that may be causing mold growth.
[2] Remove excess water from area and dry affected area thoroughly
[3] Clean affected area with ChitoSante' [BacShield] or other appropriate cleaner [procedure] to remove mold, soil and any other organic matter from surface. In many instances, ChitoSante' [BacShield] will not remove mold stains. Aggressive scrubbing, up to and including partial substrate removal may be required to remove stains.
[4] Apply ChitoSante' [BacShield] until surface is evenly wet. If area was wet for more than 24 hours prior to removal of mold, allow area to dry thoroughly following first application, and then make a second application.
[5] Allow treated surfaces to dry completely before covering.

Large Areas – Affected surfaces area larger than 30 square feet
Areas larger than 30 square feet require specific procedures performed by professionals properly trained in mold remediation.

Refer to the recommended web sites for assistance in locating a certified mold inspector and/ or remediator or call Chemtex Laboratories @ 800-532-5361 for assistance.

If you are properly trained in mold remediation, develop a complete assessment and remediation plan incorporating ChitoSante' [BacShield] to [prevent] inhibit future mold [fungal] [and] [or] [bacterial] growth.

Once the water source has been eliminated [corrected] and the surfaces properly cleaned and prepared, apply ChitoSante' [BacShield] until the surface is evenly wet. When properly applied, one gallon of ChitoSante' [BacShield] solution will cover 270-1000 square feet of surface area, depending upon the surface texture and absorbency of the substrate. Extremely porous substrates such as carpet and heavy textiles require more product per square foot and one gallon of solution would be expected to cover approximately 270 square feet. Substrates such as unpainted wood will require approximately one gallon per 600 -800 square feet of surface area. Painted wood, vinyl, fiberglass and similar substrates will require approximately one gallon per 1000 -1500 square feet of surface area.

For substrates that are prone to beading and significant run-off, such as vinyl, painted surfaces and [or] unpainted wood with high resin content, the use of a product such as BacCote (Chemtex Labs 800-532-5361) in combination with ChitoSante' [BacShield] will improve coverage and reduce runoff.
Very small droplets such as in fine sprays, mists and fog will minimize run-off.
Several light applications rather than one heavy application will reduce run-off.

If affected area was wet for more than 24 hours prior to removal of mold, allow area to dry thoroughly following first application of ChitoSante' [BacShield], and then make a second application.

Allow treated surfaces to dry completely before covering.

Cleaning [Preparing the Surface] with ChitoSante' [BacShield]
[1] To prepare cleaning solution, mix 6 [9][12] ounces of ChitoSante' [BacShield] into one gallon of water. Use 6 ounces /gallon for general cleaning and 9[12] ounces per gallon for more [the most] severe applications.
[2] Apply diluted ChitoSante' [BacShield] solution until area to be cleaned is thoroughly wet. Allow to sit [soak] [stand] for 1-2 minutes.
[Thoroughly clean the material [area] to be treated by spraying this [solution] and letting it sit for 1-2 minutes.]
[3] Wipe or scrub area to loosen mold [dirt] [soil] [organic matter]
[4] Wipe with rag [cloth] to remove mold [dirt] [soil] [organic matter] from surface and dispose of rag [cloth]

Protecting the Surface with ChitoSante' [BacShield]
[1] Mix 6 [9] ounces of ChitoSante' [BacShield] into one gallon of water. Use 6 ounces/ gallon for general cleaning and 9[12] ounces per gallon for more [the most] severe applications.
[2] Apply ChitoSante' [BacShield] solution to cleaned area until surface is thoroughly wet.
[3] Allow area to dry completely to inhibit [prevent] future growth of mold [and] [or] [odor-causing bacteria].

Prevention of Future Growth
[1] Monitor and maintain moisture levels at or below 17% in wood and other cellulosic materials
[2] Minimize [reduce] high humidity levels in areas such as crawl spaces. De-humidifiers may be beneficial in high humidity areas. If de-humidifiers are used, make certain drain lines are piped to the outside.
[3] Correct [Eliminate] source [sources] of water intrusion[s].
[4] Keep surfaces free of dust, dirt and other organic matter where feasible.

PPE – Personal Protection Equipment Requirements for Applicators
Small Areas - Less than 30 square feet: Gloves, protective eye wear [goggles] and a NIOSH approved N-95 respirator to prevent exposure to mold [and] [or] [mold spores].

Large Areas – more than 30 square feet: Gloves, protective eye wear [goggles], disposable protective suit [coveralls], NIOSH approved N-95 respirator or half-face respirator with HEPA filter as specified by mold remediation certification training.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE:

Store in original container in a cool, dry place, away from sunlight and out of the reach of children and pets.

PESTICIDE DISPOSAL:

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

CONTAINER DISPOSAL:

Non-refillable container. Do not reuse or refill this container.

Containers less than 5 gallons:

Triple rinse as follows: Empty remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Containers greater than 5 gallons

Triple rinse as follows: Empty the remaining contents into application equipment or mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or mix tank or store for later use or disposal. Repeat this procedure two more times.

BULK CONTAINERS:

Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or other procedures approved by state and local authorities.

MARKETING BULLETS:

Use On:

Apparel:
- Athletic uniforms
- Uniforms: military; law enforcement; nursing
- Work attire
- Athletic clothing
- Body Armour (bullet proof vests)
- Soles/insoles

Athletic/Sports Equipment/Locker Rooms/Training Facilities:
- Exercise equipment
- Exercise mats
- Wrestling mats/protective headgear
- Blocking pads/dummies
- Playing surfaces: wood, plastic, vinyl, carpet

All Athletic Equipment, head to toe
Sports equipment
Vehicle Interiors: all automobiles
- Cars, trucks, busses, trains, airplanes

Boat interiors
Boat covers
Synthetic Turf
Synthetic Putting Greens
Indoor/outdoor carpet
Non-food hard contact surfaces

Use Outdoors
Vinyl siding
Vinyl fencing
Awnings
Outdoor Upholstery
Outdoor Furniture
Masonry
Wood: painted and unpainted
Exterior Fabric Protectors
Carpet

Use Indoors:
Curtains, Drapes
Mattresses

Bedding Products
Leather
Wall Board
Upholstery
Carpet
Locker room
Easy to use in laundry and a convenient spray bottle
Odor causing bacteria anti-microbial
Protects treated article from mold.
Protects treated article from mildew.
Inhibits the growth of bacteria which may cause odor, stains, decay, deterioration or discoloration or the treated article.
Inhibits the growth of mold/mildew/fungi which may cause odor, stains, decay, deterioration or discoloration on the treated article
Bac-Shield makes your cleaning program more effective.
Mold/Mildew Inhibitor
Inhibits the growth of mold and mildew
Dries on the surface to create an invisible antimicrobial shield
Acts as an invisible barrier to mold and mildew growth
Creates a shield against mold and mildew
Water resistant when dry
Contains No Phosphates
Ammonia free
Bleach free
Low Vocs
Contains No Ammonia
Contains No Butyl
No fumes
Indoor and Outdoor Use!
Cleans and protects!
Derived from crab shells
Mold Cleaner and Protectant
Reduces Mold Spores that could cause musty, mold and mildew related odors
Provides long lasting protection
Easy to use in laundry and a convenient spray bottle
By-product of the fishing/crabbing industry
Chitosan is commercially available for use in antimicrobial products from recycled crab shells.
Chitosan, the active ingredient in Bac-Shield and Bac-Shield RTU, is commercially produced from recycled crab shell waste.
Chitosan, the active ingredient in Bac-Shield is derived from waste snow crab shells.
Chitosan (Poly-D-Glucosamine) is a polysaccharide, a long chain of glucose molecules.
Bac-Shield and Bac-Shield RTU are formulated with chitosan, a glucose polymer.

Bac-Shield and Bac-Shield RTU are formulated with chitosan, a polysaccharide.
Bac-Shield and Bac-Shield RTU are formulated with chitosan, a crab shell constituent.
Crab shell waste is the commercial source of Chitosan.
Bac-Shield and Bac-Shield RTU are formulated with chitosan, a structural component of crab shells.
Active ingredient is chitosan
Antimicrobial made from chitosan.
Chitosan-based antimicrobial.
Antimicrobial made from chitin.
Chitin-based antimicrobial.
Antimicrobial for odor-causing fungi.
Antimicrobial for mold.
Antimicrobial for mildew.
Antimicrobial for odor-causing mold.
Antimicrobial for odor-causing mildew.

May also be used on outdoor surfaces such as concrete, masonry, cinder blocks, construction materials in buildings, stucco, awnings, decks, fences, vinyl and wood siding, patios, patio furniture, and shingles (asphalt and shake).

Use in boats, cruise ships, homes, attics, basements, laundry rooms, closets, institutions, business, schools, health clubs, transportation terminals, and recreational vehicles (RVs), apartments, workshops, trailers, carports, porches, camping equipment and other household areas.

Please refer to www.bacshield.com to obtain more information regarding our corporate commitment to sustainability. For a comprehensive evaluation of Chitin and Chitosan, additional documents can be found in EPA's public docket (Docket #EPA-HQ-2007-0566, Chitin Case 6063) at www.regulations.gov.