



STATE OF HAWAII  
Department of Agriculture

**ACCEPTED**

LICENSE NO.

**8535.2**

**Ready-to-Use**

**Antimicrobial for Textiles and Surfaces Inhibits Growth and Odor from Bacteria, Mold, Mildew and Fungi**

**ACTIVE INGREDIENT:**

Chitosan ..... 0.3%

**OTHER INGREDIENTS:**..... 99.7%

**TOTAL:** ..... 100.0%

**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**

**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.

**Produced by:**

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

EPA Reg# 81446-2      EPA Est# 081446-NC-002

**Net Contents:** □5 gal. (18.925 L), □32 fl. oz (946 ml),  
□1 gal (3.785 L), □16 fl. oz. (473 ml)

**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.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Bac-Shield™ RTU is intended as a treatment in order to give antimicrobial and antifungal activity to the treated materials. Bac-Shield™ RTU inhibits the growth of non-public health related organisms such as bacteria, mold, mildew and fungus that cause odor, stains, discoloration, decay and deterioration of the treated materials. Distributors of products containing Bac-Shield™ RTU 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.

**DOMESTIC USES**

**As a cleaner:**

Bac-Shield™ RTU may be used as a cleaner to remove odor-causing bacteria, mold, mildew, and other organic matter from materials prior to subsequent application to inhibit bacterial and or mold growth on those surfaces and or materials. Thoroughly clean the material to be treated by spraying this product and letting it sit for 1-2 minutes. Wipe or scrub clean.

**Note: Always test for staining in an inconspicuous area. Bac-Shield™ RTU should not stain articles not stained by water alone.**

**Laundry: As an after-wash treatment for clothing, linens, uniforms, textiles in general:** Remove laundry from washer after final spin cycle. Spray each article with Bac-Shield™ RTU solution. Bac-Shield™ RTU may also be applied to articles which have been previously washed and dried. Dry treated article thoroughly before use. Apply to each load.

**Other Uses: Porous Surfaces: As a spray for textiles, and other porous surfaces such as but not limited to: awnings, bedding, car covers, boat covers, curtains, drapes, linens, mattresses, pet bedding, pillows, shoes, umbrellas, upholstery, vehicle interiors, textile wall partitions and other household or construction materials.** Construction materials such as paper, ceilings, wood, wallboard, masonry, particle board, and other building materials must be sealed and/or painted before applying Bac-Shield™ RTU. The use of a sealant such as BacCote (Chemtex Labs 800-532-5361) in combination with Bac-Shield™ RTU will provide a sealed surface. Areas to be treated with Bac-Shield™ RTU™ must be thoroughly cleaned to remove dirt, mold, mildew, fungi, or other organic matter. Bac-Shield RTU™ can be used as a cleaner prior to subsequent treatment with Bac-Shield™ RTU.

**See section titled “Cleaning with Bac-Shield™ RTU” for instructions in using Bac-Shield™ RTU as a cleaner**  
Apply Bac-Shield™ RTU until the surface is thoroughly damp. One gallon of solution covers approximately 270 sq. ft. Allow to dry before use.

**Non-Food Hard Contact Surfaces: As a spray or mist for non-food hard contact surfaces, such as, but not limited to: fiberglass, metal, vinyl, garbage cans, laminated surfaces, desks, window sills and sealed and/or painted surfaces (such as masonry, particle board, and wood), and other interior and exterior surfaces.**

Areas to be treated with Bac-Shield™ RTU must be thoroughly cleaned to remove dirt, mold, mildew, fungi, or other organic matter. Bac-Shield™ RTU can be used as a cleaner prior to subsequent application of Bac-Shield™ RTU. Thoroughly clean the material to be treated by spraying this product and letting it sit for 1-2 minutes. Wipe or scrub clean. **See section titled “Cleaning with Bac-Shield™ RTU” for instructions in using Bac-Shield™ RTU as a cleaner** After all foreign matter is removed from surface, Apply Bac-Shield™ RTU to surfaces until thoroughly wet. Allow to dry before use. To treat surfaces, apply Bac-Shield™ RTU using a hand held spray bottle or other suitable sprayer. Apply Bac-Shield™ RTU to surfaces until thoroughly wet. Apply Bac-Shield™ RTU evenly to surfaces. Avoid runoff. Allow to dry before use. Allow sprayed surfaces to dry completely before re-use.

**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.**

Bac-Shield™ RTU may be applied by hand sprayer, garden sprayer, airless/compression sprayer, cold-fogger, brush, roller, cloth, or immersion. **Carpeting ( indoor and outdoor):** Apply to clean carpet as a spray or mist. One gallon of solution covers approximately 270 square feet of surface area. Allow to dry before use. In homes, offices, commercial, industrial and hospitality settings apply Bac-Shield™ RTU each time carpet is cleaned or as needed for odors due to mold, mildew, fungi, or bacteria. Re-apply Bac-Shield™ RTU after each carpet cleaning. In athletic facilities, carpet must be cleaned regularly and Bac-Shield™ RTU applied weekly.

**For heavier weight carpets (such as synthetic turf):** Apply Bac-Shield™ RTU as a spray at a rate of 1 gallon of solution per 270 square feet. Allow to dry before use. Apply every three months **Vehicle Interiors:** Spray 3 fl. oz. of Bac-Shield™ RTU 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.

**Recommended Web Sites for Mold Removal/Remediation Information:**

NORMI - National Organization for Remediators and Mold Inspectors

[www.normi.org](http://www.normi.org)

Indoor Air Quality Association Inc [www.iaqa.org](http://www.iaqa.org)

Chemtex Laboratories Inc [www.bacshield.com](http://www.bacshield.com)

EPA – Environmental protection Agency [www.epa.gov](http://www.epa.gov)

IICRC – Institute of Inspection, Cleaning and Restoration Certification

[www.iicrc.org](http://www.iicrc.org)

**Mold Removal and or Prevention**

If mold is present refer to recommended websites for accepted remediation practices. Refer to section titled “PPE-Personal Protection Equipment for Applicators” for appropriate equipment to wear. Bac-Shield™ RTU 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, place in a trash bag, seal and dispose of in normal trash. Area to be removed can be sprayed with Bac-Shield™ RTU prior to removal to reduce likelihood of airborne spores. If the affected area cannot be easily removed, follow these steps. 1- Eliminate any sources of water that may be causing mold growth. 2- Remove excess water from area and dry affected area thoroughly 3-Clean affected area with Bac-Shield™ RTU or other appropriate cleaner to remove mold, soil and any other organic matter from surface. In many instances, Bac-Shield™ RTU will not remove mold stains. Aggressive scrubbing, up to and including partial substrate removal may be required to remove stains. 4-Apply Bac-Shield™ RTU 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 are larger than 30 square feet** Areas larger than 30 square feet require specific procedures performed by professionals properly trained in mold remediation. Refer to 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 Bac-Shield™ RTU to prevent future mold and or bacterial growth. Once the water source has been eliminated and the surfaces properly cleaned and prepared, apply Bac-Shield™ RTU until the surface is evenly wet. When properly applied, one gallon of Bac-Shield™ RTU 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 the use of a sealant such as BacCote (Chemtex Labs 800-532-5361) and will require approximately one gallon of solution per 600-800 square feet of surface area. Painted wood, vinyl, fiberglass and similar substrates will require approximately one gallon per 100-1500 square feet of surface area.

**For substrates that are prone to beading and significant run-off, such as vinyl and sealed and/or painted surfaces,** the use of sealant such as BacCote (Chemtex Labs 800-532-5361) in combination with Bac-Shield™ RTU will improve coverage, reduce runoff and provide a sealed surface. Very small droplets such as in fine sprays, mists and fog will minimize run-off. Several light application rather than one heavy application will reduce run-off. If the affected area was wet for more than 24 hours prior to removal of mold, allow area to dry thoroughly following first application of Bac-Shield™ RTU, and then make a second application. Allow treated surfaces to dry completely before covering.

**Cleaning with Bac-Shield™ RTU**

1-Apply Bac-Shield™ RTU until are to be cleaned is thoroughly wet. 2-Wipe or scrub area to loosen mold/dirt/soil/organic matter 3-Wipe with cloth to remove mold/dirt/soil/organic matter from surface and dispose of cloth

**Protecting the Surface with Bac-Shield™ RTU**

1-Apply Bac-Shield™ RTU to cleaned area until surface is thoroughly wet. 2-Allow area to dry completely to inhibit 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 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-Eliminate source of water intrusion. 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, NIOSH approved N-95 respirator or half-face respirator with HEPA filter as specified by mold remediation certification training.

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. Thoroughly clean the material to be treated by spraying this product and letting it sit for 1-2 minutes. Apply Bac-Shield™ RTU evenly to surfaces. Hold spray 6 to 8 inches away from surface and spray until damp. Wipe or scrub clean. Allow sprayed surfaces to dry completely before reuse. Please refer to [www.bacshield.com](http://www.bacshield.com) to obtain more information regarding our corporate commitment to sustainability. For a comprehensive evaluation of the active ingredient, chitosan, with regard to sustainability, biodegradation, ecological effects, environmental contributions and other biological effects, visit [www.bacshield.com](http://www.bacshield.com). 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](http://www.regulations.gov).

**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 seconds after flow begins to drip. Fill 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 his procedure two more times.

Containers greater than 5 gallons Triple rinse as follows: Empty remaining contents into application equipment or mix tank. Fill container ¼ full with water and recap. 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 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 by other procedures approved by state and local authorities

**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. ESL100311 REV101011