**Antimicrobial for Textiles and Surfaces:**
Inhibits growth and odor from bacteria, mold, mildew and fungi.

**ACTIVE INGREDIENT:**
Chitosan .......................... 6.0%

**OTHER INGREDIENTS:** ............................. 94.0%

**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 or clothing. Wash thoroughly with soap and water after handling.

---

**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 immediately for treatment advice.

- If on skin:
  - Wash thoroughly with soap and water.

- If swallowed:
  - Do not induce vomiting unless instructed to do so by a physician.

- If inhaled:
  - Move to fresh air.

Manufactured by:
Chem-Tex Laboratories, Inc.
2725 Armentrout Drive
Concord, NC 28027
704-795-9322

EPA Reg# 81446-1  EPA ESN# 81446-NC-1
Net Contents: 5 gallon (18.927 L)

---

**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™ is intended as a treatment in order to give antibacterial and antifungal activity to the treated materials. Bac-shield™ inhibits the growth of non-health related organisms such as bacteria, mold, mildew and fungus that cause odors, stains, discoloration, decay and deterioration of the treated materials. Distributors of products containing Bac-shield™ may not make claims of antifungal activity other than the protection of the treated material against the growth of bacteria, mold, mildew and fungus on or in the treated product. See 40 C.F.R. 157.25(e) for further guidance about treated article claims.

Commercial/Industrial uses: Bac-shield™ is used in the finishing process of manufacturing textiles, including carpet. Bac-shield™ should always be applied to textiles during the dying process, by a part of a part Bac-shield™ to 50–100 parts of dye water. Apply approximately 1–2% Bac-shield™ relative to the dry weight of the textiles. The textile materials should be soaked in this bath solution to achieve good saturation and penetration of fibers. After soaking, textile materials should be dried at a temperature of 70–170 degrees C.

For surface applications to textiles, paper, leather, textile wall partitions and wallboard, apply as a spray, direct surface application (kiss, roll, flood rinse) or foam as a rate of 3–12 fluid ounces of Bac-shield™ per gallon of water, depending upon surface texture and absorption qualities of textile (See Table 1).

---

**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:** Waste resulting from use of this product may be disposed of on site or as approved waste disposal facility.

**Container Disposal:** Triple rinse (or equivalent). Then offer for recycling or recondition, 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.

**Bulk Containers:** Triple rinse (or equivalent). Then offer for recycling or recondition, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities.

---

**Table 1. Mixing Instructions for a 1% Application Rate (double for 2% application rate)**

<table>
<thead>
<tr>
<th>Textile</th>
<th>Absorption</th>
<th>Solution</th>
<th>Level</th>
<th>1 gal or sq. yd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nylon</td>
<td>low</td>
<td>12 fl oz</td>
<td>1%</td>
<td>0.12 fl oz/gal</td>
</tr>
<tr>
<td></td>
<td>moderate</td>
<td>6 fl oz</td>
<td>1%</td>
<td>0.25 fl oz/gal</td>
</tr>
<tr>
<td></td>
<td>high</td>
<td>3 fl oz</td>
<td>1%</td>
<td>0.50 fl oz/gal</td>
</tr>
</tbody>
</table>

**Professional Applicator Uses**

Dilute Bac-shield™ with water at a ratio suitable for spray equipment and surface to be treated. Apply at a rate of 1–2% Bac-shield™ per weight of the material to be treated.

For vehicle interiors, dilute 6 fl oz. Bac-shield™ with 1 gallon of water, and spray 3 fl oz. of solution per average sized car. Use more solution to cover larger vehicles.

For carpet cleaners, dilute 6 fl oz. Bac-shield™ per gallon of water. One gallon of solution treats 30 sq. yd. of 20 oz. / sq. yd. weight carpet at 1%.

**Domestic Indoor Uses**

Home use (washing machine): Add 1 ounce per gallon of water to final rinse then dry (See Table 2)

**Table 2. Mixing Instructions for a 1% Application Rate (double for 2%)**

<table>
<thead>
<tr>
<th>Textile</th>
<th>Absorption</th>
<th>Solution</th>
<th>Level</th>
<th>1 gal or sq. yd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nylon</td>
<td>low</td>
<td>8 gal</td>
<td>12 gal</td>
<td>15 gal</td>
</tr>
<tr>
<td></td>
<td>moderate</td>
<td>5 cups</td>
<td>7 cups</td>
<td>9 cups</td>
</tr>
<tr>
<td></td>
<td>high</td>
<td>1 cup</td>
<td>2 cups</td>
<td>3 cups</td>
</tr>
</tbody>
</table>

Hence use treatment of textiles remains effective for several washings. Thus, repeat application is not required for each washing.

Home use (spray): Add 3 ounces per gallon of water, thoroughly soak textiles to be treated. (See Table 3)

**Table 3. Amount of Bac-Shield™ for Spray Applications (1% application rate)**

<table>
<thead>
<tr>
<th>Textile</th>
<th>Absorption</th>
<th>Solution</th>
<th>Material</th>
<th>Lb/oz</th>
<th>Material</th>
<th>Lb/oz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nylon</td>
<td>low</td>
<td>0.66</td>
<td>0.25</td>
<td></td>
<td>0.25</td>
<td></td>
</tr>
<tr>
<td></td>
<td>moderate</td>
<td>0.12</td>
<td>0.50</td>
<td></td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>high</td>
<td>0.23</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To spray textile covers (boots, car seat, cover, sofa): add 1 ounce per gallon of water, apply at a rate of 2 ounces per square foot of material. Dry thoroughly before using.

To spray textile surfaces (curtains, mattress, carpet): add 3 ounces per gallon of water, apply as a spray at a rate of 2 ounces of solution per square foot of material. Dry thoroughly.

For consultation on specific manufacturing directions for a given application, contact Chem-Tex Laboratories, Inc.

---

**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 limited liability warranty and disclaimer cannot be varied by any written or oral 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.

ESL-11216  REV0919