

# Aprehend<sup>®</sup>

*Ready to use*

- Provides control for up to 3 months
- No mixing or dilution required
- Low odor
- Non-repellent
- Ready-to-Use biological mycoinsecticide for the control and prevention of bed bugs
- Prevents the establishment of bed bug populations when applied (quarterly) (every 3 months)

<b>Active Ingredient:</b> <i>Beauveria bassiana</i> Strain GHA* .....	2.0%
<b>Other Ingredients**:</b> .....	98.0%
<b>Total:</b> .....	100.0%

\*Contains a minimum of  $2.2 \times 10^9$  viable spores per milliliter of product.

\*\*Contains petroleum distillates.

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

**SHAKE WELL**

**Do not dilute this product.**

Aprehend<sup>®</sup> must be applied at low volume application rates using a Low Volume Low Pressure spray applicator. Contact ConidioTec LLC or your distributor for specific information about applicator system.

**DO NOT USE STANDARD (HIGH VOLUME) SPRAY APPLICATION EQUIPMENT TO APPLY THIS PRODUCT.**

EPA Reg. No.: 89186-1  
EPA Est. No.: 89186-PA-001  
Net Contents: 16 fl. oz.

Manufactured by: ConidioTec LLC  
2440 Earlstown Road Suite 600  
Centre Hall, PA 16828

<b>FIRST AID</b>	
If on skin or clothing	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advise.</li> </ul>
If in eyes	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
If swallowed	<ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.</li> </ul>
<p><b>HOTLINE NUMBER</b></p> <p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.</p>	
<p><b>NOTE TO PHYSICIAN</b></p> <p>Contains petroleum distillate. Vomiting may cause aspiration pneumonia.</p>	

### **PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION:**

Avoid contact with skin, eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

When handling this product, wear a long-sleeved shirt; long pants; socks; shoes; barrier laminate, nitrile rubber, neoprene rubber, or Viton gloves; and a NIOSH-approved particulate respirator with any R or P filter with NIOSH approval number prefix TC-84A or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

Follow the manufacturer's instructions for cleaning/maintaining protective equipment. If no such instructions for washables, use detergent and hot water. Keep and wash protective equipment separately from other laundry.

## DIRECTIONS FOR USE

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

For indoor use only.

Apply in an inconspicuous area to test for possible staining or discoloration. Evaluate test area after drying.

## SHAKE WELL

PRODUCT FACTS	
Aprehend®	<ul style="list-style-type: none"><li>• Aprehend® is a <b>ready-to-use</b> oil formulation containing viable spores (conidia) of the fungus <i>Beauveria bassiana</i> Strain GHA, a biological insecticide that is specific to insects. The fungal spores act like a contact insecticide by sticking to the outer cuticle of the insect. Bed bugs are affected by walking on a previously treated surface. Following exposure, the fungal spores will germinate and penetrate the cuticle, colonizing the body of the bed bug and resulting in death within 4 to 10 days.</li><li>• Treated painted and unpainted surfaces will remain effective for up to 3 months, providing long-term control and protection from re-infestation.</li></ul>

<b>PRODUCT FACTS</b>	
<b>Aprehend® Specifications</b>	<ul style="list-style-type: none"> <li>• Use for control and prevention of bed bug infestations.</li> <li>• Up to three-month residual effect on bed bug nymphs and adults.</li> <li>• Effective against pyrethroid-resistant bugs.</li> <li>• No odor.</li> <li>• Ready-to-use.</li> <li>• Can be used after heat treatments.</li> </ul>
<b>Controls</b>	<ul style="list-style-type: none"> <li>• Kills bed bug nymph stages by exposure to previously treated surfaces.</li> <li>• Kills bed bug adults by exposure to previously treated surfaces.</li> </ul>
<b>How to use</b>	<ul style="list-style-type: none"> <li>• <b>Invert bottle and shake well before using.</b></li> <li>• <b>Do not dilute this product.</b></li> <li>• <b>Do not mix Aprehend® with water or other products.</b></li> </ul>
<b>Where to apply</b>	<ul style="list-style-type: none"> <li>• For indoor use only.</li> <li>• <i>See instructions below.</i></li> <li>• In buildings and structures including houses, apartments, hotel and motel rooms, offices, and seating areas in theatres and modes of transport.</li> </ul>
<b>Treatment specifications</b>	<ul style="list-style-type: none"> <li>• Aprehend® must be applied at low volume application rates using a Low Volume Low Pressure spray applicator. Contact ConidioTec LLC or your distributor for specific information about applicator system.</li> <li>• <b>DO NOT USE STANDARD (HIGH VOLUME) SPRAY APPLICATION EQUIPMENT TO APPLY THIS PRODUCT.</b></li> </ul>

## PRODUCT FACTS

<b>How to apply</b>	<ul style="list-style-type: none"><li>• <b>Invert bottle of Aprehend® and shake bottle thoroughly before use to suspend contents.</b></li><li>• Remove cartridge from applicator and fill with shaken Aprehend®.</li><li>• Connect the filled cartridge to the applicator.</li><li>• Hold the applicator close to the surface to be treated and apply at a speed of approximately <math>\geq 1</math> foot per second making a continuous 2" wide swath (barrier) of Aprehend®.</li><li>• Resulting volume application will be approximately 0.5 fl. oz. of Aprehend®/50 linear ft. of surface.</li><li>• Do not allow excessive dripping or run-off to occur on surfaces.</li></ul>
<b>Re-entry</b>	<ul style="list-style-type: none"><li>• Keep unprotected persons and pets out of treated areas while treating and after treating for 4 hours.</li></ul>
<b>Precautions/restrictions</b>	<ul style="list-style-type: none"><li>• Do not apply to bare floors – slipping hazard.</li><li>• Do not apply on wet surfaces.</li><li>• Do not apply on fresh painted surfaces.</li><li>• Do not apply to wallpaper.</li><li>• Do not apply to silk.</li><li>• Do not apply on hot surfaces.</li><li>• Do not apply where electrical short circuits can occur.</li><li>• Do not apply to furniture, upholstery or mattresses where prolonged contact with humans will occur.</li><li>• Do not apply to flat surfaces where prolonged human contact will occur.</li><li>• To ensure long-term residual activity, do not clean or wipe spray residue from treated surfaces.</li><li>• Before application to fabrics, always spray a small inconspicuous area to check for staining.</li></ul>

## **Bed Bug Treatments**

Use this product for control and prevention of bed bug infestations. Aprehend® is intended as a barrier treatment; bed bugs are affected by crossing a surface (barrier) that has been treated with Aprehend®. Create a continuous 2" swath (barrier) of Aprehend®, in locations where bed bugs are likely to walk when emerging from their harborages in search of a blood meal.

### **Directions for use to control existing bed bug infestations:**

**Beds and Bedrooms** – Remove all bedding including sheets, pillows, blankets, comforters and other linen, such as a box spring skirt. These items should be bagged and then laundered in hot water at 120 °F minimum and/or placed in a clothes drier at highest temperature for one hour.

For best results, hold the applicator close to the surface to be treated and apply at a speed of approximately  $\geq 1$  foot per second making a continuous 2" wide barrier of Aprehend®, which on drying will be invisible but will remain effective for up to 3 months on painted and unpainted surfaces. All bed bugs crossing the barrier will become infected and go on to die.

The key to effective application of Aprehend® is to ensure that the barrier is continuous around the perimeter of each item being treated. Apply a continuous 2" barrier of Aprehend® around all potential harborage sites including tables, wall crevices, mirrors, picture frames and backs, door jambs, moldings and hinges, window ledges, sills, drapery rods, curtains, blinds and mounting hardware, closet shelving and hardware, chairs, sofas, bedroom furniture (e.g. headboard, nightstands, dressers and wardrobes, and TV stands), and around the perimeter of the room and baseboards. DO NOT TREAT INSIDE ELECTRICAL OUTLETS OR FIXTURES.

Treat items as follows:

- **Bed Frame** – Once the mattress and/or box spring have been removed from the frame, treat the frame with Aprehend®. It is NOT necessary to treat the entire surface of the bed frame. Simply ensure that a complete 2" barrier of Aprehend® has

been applied around the outside of the frame, and the inside of the frame close to the base where the slats or mattress support board meet the frame. Make sure that all cracks, crevices, joints, screw-holes and channels are also treated. Allow the treatment to dry prior to replacing the mattress.

- **Headboard** – Treat the rear surface of the headboard that faces away from the mattress with Aprehend®. Create a continuous 2” barrier of Aprehend® around the entire perimeter of the back of the headboard. Make sure that all cracks, crevices, joints, screw holes and channels are also treated. Allow the treatment to dry.
- **Box Spring** – Apply Aprehend® as a 2” barrier around the bottom perimeter of the box spring where the fabric dust cover is fixed and around the perimeter of the top surface of the box spring. If no dustcover is present, apply inside of the box spring, paying particular attention to the side-walls. Allow the treatment to dry.
- **Picture Frames** – Remove pictures from wall, particularly those close to the bed, and apply Aprehend® around the perimeter of the back of the frame.
- **Bedroom** - Apply Aprehend® around the perimeter of the room where the baseboard meets the wall. Ensure all furniture is moved away from the walls to permit treatment of all areas.
- **Do not treat mattresses, sheets, pillows, blankets, comforters and other linen directly with Aprehend®.**

**Chairs, Couches and Seating Areas** – Treat under cushions and underneath chair, couch or seating area. Ensure that the barrier of Aprehend® is continuous around the entire perimeter of the chair, couch or seating area. Make sure that all cracks, crevices, joints, screw holes and channels are also treated. Apply a 2” barrier of Aprehend® around the bottom perimeter of the dust cover where it is attached to the frame. **Do not treat where people may come into direct contact with the treated area.** Do not treat silk fabrics.

**Offices** –Treat the underside of chairs where bed bugs have

been observed or are expected to occur by applying a 2" barrier of Aprehend® around the perimeter of the underside of the chair. Treat cracks and crevices underneath desk where bed bugs have been observed or are expected to occur. If treating shelves, treat underneath the bottom shelf. Apply around the perimeter of the room where the baseboard meets the wall. Ensure all furniture is moved away from the walls to permit treatment of all areas. Allow treatment to dry. **Do not treat where people may come into direct contact with the treated area.**

For perimeter treatment and/or treatment of furniture inside other building interiors (theatres) or inside motor vehicles, buses, trains, airplane cabins, or boat cabins, follow the instructions listed above for offices, bedrooms and seating areas.

#### **Directions for use to prevent the establishment of introduced bed bugs:**

This treatment is intended for sites that are at risk of developing infestations from introduced bed bugs (e.g. hotels and motels). Reapply every 3 months to ensure continuous protection against bed bug establishment.

**Beds and Bedrooms** – Remove all bedding including sheets, pillows, blankets, comforters and other linen. These items should be removed from the area and replaced after treatment.

- **Bed Frame and Box Spring** – Remove the mattress and place it away from the area to be treated. Apply Aprehend® as a 2" barrier around the perimeter of the bed frame and box spring. It is not necessary to remove the dust cover, but ensure that the barrier is applied around edge of the frame where the dust cover is fixed. If no dustcover is present, apply inside of the box spring, paying particular attention to the side-walls. Make sure that all areas where the frame surfaces meet are treated. Treat the perimeter of the top surface of the box spring with Aprehend®. Allow the treatment to dry.



- **Headboard** – Treat the rear surface of the headboard that faces away from the mattress with Aprehend®. Create a continuous 2” barrier of Aprehend® around the entire perimeter of the back of the headboard. Make sure that all cracks, crevices, joints, screw holes and channels are also treated. Allow the treatment to dry. Re-attach the headboard to the frame/wall. If the headboard is permanently fixed to the wall, apply around the perimeter of the headboard at the wall interface, paying particular attention to the gap between the headboard and the wall.
- **Picture Frames** – Remove pictures from wall, particularly those close to the bed and apply around the perimeter of the back of the frame.
- **Room** - Apply around the perimeter of the room where the wall meets the baseboard. Ensure all furniture is moved away from the walls to permit treatment of all areas.
- Apply a continuous 2” barrier of Aprehend® around other potential harborage sites including, luggage racks, mirrors, picture frames, window ledges, closet shelving, and other cracks and crevices.
- **Do not treat sheets, pillows, blankets, comforters and other linen directly with Aprehend®.**

**Chairs, Couches and Seating Areas** – Remove cushions if applicable, and apply as a 2” barrier of Aprehend® around the inside perimeter of the chair/couch. Treat under cushions and underneath chair, couch or seating area. **Do not treat where people may come into direct contact with the treated area.** Do not treat silk fabrics.

**Offices** – Ensure all employees have left the office area before commencing treatment. Before treating, remove all clutter.

**Office Desks and Chairs** -Treat the underside of desks and chairs. Treat cracks and crevices underneath desk. If treating shelves, treat the bottom perimeter of each shelf. Apply around the perimeter of the room where the wall meets the baseboard. Ensure all furniture is moved away from the walls to permit treatment of all areas. Allow treatment to dry. **Do not treat where people may come into direct contact with the treated area.**

For perimeter treatment and/or treatment of furniture inside other building interiors (theatres) or inside motor vehicles, buses, trains, airplane cabins, or boat cabins, follow the instructions listed above for offices, bedrooms and seating areas.

### **STORAGE AND DISPOSAL**

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

**Storage:** Store between 40° F and 77° F in a cool, dry place away from heat or open flame. Do not store product in vehicles. Use a cooler box with an ice pack to transport product in vehicles prior to use. Do not expose product to temperatures above 77°F for long periods of time.

**Pesticide Disposal:** To avoid waste, use all material in this container by application according to label directions. If waste cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or industry).

**Container Handling:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or dispose of in trash or in a sanitary landfill or by incineration.

### **WARRANTY AND DISCLAIMER**

Aprehend® conforms to the description set forth on this label and is reasonably fit for the purposes described herein when used according to the label directions and specified conditions. To the extent consistent with applicable law, ConidioTec LLC makes no warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise that extend beyond statements made on this label. To the extent consistent with applicable law, Buyers and Users shall assume all risk and responsibility for potential loss or damage if this product is used, stored, handled or applied in a manner inconsistent with this labeling except as warranted in this label. To the extent consistent with applicable law, ConidioTec LLC shall not be liable for indirect, special, incidental or consequential damages. To the extent consistent with applicable law, the exclusive remedy of the User or Buyer shall not exceed the purchase price paid.

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- No mixing or dilution required
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**Do not dilute this product.**

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