

# Bed Bug Control Guide

## *Bed Bug Treatment Tips Using CimeXa™ Insecticide Dust*

### **HOW DOES CIMEXA DIFFER FROM OTHER BED BUG PRODUCTS?**

Bed bugs are very adaptable. They move much faster and travel greater distances than most people realize. Bed bugs are able to relocate from areas where pesticides have been applied in a short period of time. Research has shown that many commonly used products for bed bug control are very slow acting, include ineffective active ingredients or active ingredients to which bed bugs are resistant, and/or have a strong repellent nature driving bed bugs away from treated areas. Research on field-collected bed bugs has shown significant and increasing resistance to pyrethroids and neonicotinoids. Field testing has shown that diatomaceous earth is largely ineffective on bed bugs. Products containing diatomaceous earth, pyrethroids, and/or pyrethrins, are repellent to bed bugs. Treatment with these products may not kill



bed bugs and may cause them to relocate or disperse in response to the treatment. **CimeXa is a strong desiccant silica dust (absorbs water and oil), which does not contain any additional**

**pesticide active ingredients.** Since CimeXa is completely amorphous, with no crystalline content, it does not cut the exoskeleton of insects like DE, and unlike DE is non-repellent. **Because of the mode of action, there is no chemical resistance to CimeXa.**

CimeXa is light, which is an attribute allowing it to easily adhere and accumulate on bed bug exoskeletons. Bed bugs are unaware that CimeXa is present and they continue to reside in their normal harborage areas, leading to more rapid and complete control,

even of the heaviest infestations. **CimeXa quickly kills bed bugs where they live without displacement, without repellency, and without disturbing their normal behavior.**

## **The 2-Step Bed Bug Elimination Approach**

1. Kill visible bed bugs and contain the infestation by reducing bed bug movement into new areas using spray treatment with EcoVia research-based botanicals and FenvaStar EcoCap.
2. Provide both immediate and long-term protection, exclusion, and killing using CimeXa Insecticide Dust.

## **CimeXa™ Application Methods & Tips**

**Dust Application:** Dust application provides the fastest control results. A hand duster, low volume electric duster, or brush may be used. When applying as a dust, a dust mask, gloves and eye protection are recommended. CimeXa is virtually non-toxic, but due to the strong desiccant effect, it can be temporarily drying and/or irritating. Any liquid pesticides should be applied and allowed to dry prior to applying CimeXa. Do not use repellents where CimeXa is applied. Use hand-held, or low-volume electric dusters for wall voids, plumbing chases, behind electrical outlets, behind carpet tack strips, and cracks and crevices. Insert the tip of the duster into the opening, as far as practical, and test first to ensure a void is present to minimize floating dust particles on exposed surfaces. Clean any overspray off of exposed surfaces with a damp cloth or paper towel, or soft bristle brush. Testing has shown that CimeXa dust can be effectively applied to many surfaces with a paint brush. Various brush widths and bristle types can be used, depending on the band width and amount of dust desired. A 1 ½ or 2 inch angled sash brushworks well for most crevices and surfaces. Smaller

detail brushes or artist brushes work well for fine detail work on mattresses and furniture. “Load” the brush with the desired amount of CimeXa, by lightly working the brush around in a small container of CimeXa, or by applying a small layer of dust using the applicator bottle, handheld duster, or electric duster and working the dust into desired locations with the brush.

**CIMEXA APPLICATION WITH A BRUSH REQUIRES** 1) Attention to detail. 2) Practice/experience. Once mastered, technicians find this to be an effective and efficient method of working CimeXa dust into and onto many harborage sites.

**Liquid Suspension Application (Wettable Dust):** Per the label, CimeXa is a unique dust in that it can be applied mixed with water, as a spray application. It doesn’t dissolve, it forms a slurry, which when dry goes back to its white dust form. This technique is referred to as a “Wettable Dust” application. The most effective mixing rate is 1 oz, which equates to 1 cup in 1 qt of water. A typical hand actuated spray bottle is ideal for this application. If a compressed air sprayer is dedicated to applying CimeXa, 4 oz or 4 cups per gallon of water should be used and fine mesh screens should be removed. When applying CimeXa in the wettable dust form, it is best to spray the intended site with two light coats. Spray the first coat and let dry, then spray a second light coat. This method allows the CimeXa dust to ‘sit up’ on the treated surface, ensuring maximum product pick up as the bed bug walks through the CimeXa. As noted, CimeXa is non-repellent. Any bed bugs missed during application, or new infestations, will readily reside in the treated harborage sites ensuring a lethal dose.

**For best results, mix CimeXa as follows:**

1. Add approximately half of the required amount of water to the bottle/tank.
2. Add the appropriate amount of CimeXa.
3. Close application equipment and agitate or shake the tank until dust is wetted and a slurry is formed.
4. Add the remaining water and agitate or shake again before use to ensure thorough mixing.

**Note: Shake or re-agitate application equipment before use if application is interrupted to ensure the product is thoroughly mixed. Mix only the amount of application volume required. Do not store the spray mixture overnight as it will begin to gel after sitting for several hours.**

## **Killing Visible Bed Bugs & Containment with EcoVia™ Botanicals**

**EcoVia Research-Based Botanicals** are 25(b) exempt pesticides made with natural plant oils. Each formulation features multiple plant oils and each plant oil features multiple active components. These multiple modes of action combat the resistance that bed bugs have developed to both pyrethroids and neonics, providing fast kill and strong repellency. Also, recent bed bug research from Purdue has shown that botanicals can actually enhance the effectiveness of pyrethroids in resistant bed bugs, causing a synergistic effect. Use EcoVia CA aerosol for contact kill of visible bed bugs in less than one minute and residual activity up to 3 weeks. For treating areas that cannot be treated with dust, and to offer extended repellency in non-infested areas, tank mix EcoVia EC at ½-1 oz/gal and FenvaStar EcoCap micro-encapsulated esfenvalerate at 1 oz/gal.

## **Application Methods & Tips**

**Visible/Exposed Surfaces:**

- Treat any surface that is visible, or more correctly, exposed, with CimeXa only if cracks and crevices are present that can potentially harbor bed bugs. To minimize residue on exposed surfaces the operator should use the application method with which they are most comfortable.

- Use EcoVia CA for fast contact kill of bed bugs that are present where no harborage sites or cracks and crevices are visible or accessible.
- Other key areas for repellent spray treatment include adjacent rooms where bed bugs have not been detected, and areas of the home where bed bugs may be inadvertently carried from harborage areas, such as bathrooms, laundry rooms, garages and storage areas, etc.
- For extended protection, tank mix EcoVia EC and FenvaStar EcoCap and apply to the areas noted.

#### **Hidden Surfaces (Non-Visible Surfaces):**

- Hidden surfaces include all voids, behind baseboards, all internal and rear sides of furniture, appliances, wall hangings, or other furnishings.
- In these areas, the dry dust application, using a duster or brush, is the best method of applying CimeXa.

#### **Porous Surfaces:**

##### **1. Carpet:**

- Research has shown that CimeXa applied in the dust form and then lightly worked into the carpet with a brush is an effective method of control. Apply CimeXa in a manner that leaves minimal visible residue.
- Focus applications on infested areas and areas directly adjacent to infested areas. Extremely light applications to carpet have been shown to be effective.
- **A very light application applied in a 6" band onto carpet around the perimeter of rooms can provide long-lasting protection against re-infestation in susceptible accounts.**
- Apply EcoVia CA or tank-mixed EcoVia EC and FenvaStar EcoCap in other areas not directly adjacent to or in infested areas.

##### **2. Fabric, Mattresses, Box Springs, Stuffed Furniture, Leather:**

- The mattress is most effectively treated with the brush technique along edges, tufts, and folds. However, the wettable dust (spray) method can be utilized as long as two light coats are applied.
- Box springs, sofas and similar furniture can be treated by one of two methods, depending on its condition:
  - If the box spring, or other furniture is in new condition and the cambric (dust cover on the bottom) is not torn, a hand held or electric duster will quickly cover the inside with one application from each corner. Place the duster's extension between stapled portions of the cambric or remove some staples for better access.
  - If the cambric is not intact, the wettable dust (spray) application is the best method to achieve thorough coverage while reducing the potential for dust drift in the room.
- Apply two light coats to the wood/metal framing and any other areas where bed bugs are detected.
- Brush CimeXa into tufts and creases of upholstered furniture. Launder or heat treat any removable portions of furniture such as throw pillows and seat.

##### **3. Unfinished Wood or Fiber Board:**

- Generally, these surfaces are located on the rear, bottom, and interior of furniture, including headboards that are attached to the wall, as is common in hotels.
- Dust can be applied carefully as long as dust drift is minimized, and any visible residual dust is cleaned from visible exterior surfaces.
- Spraying and brushing are the preferred methods, as the application is precise, and the dust is directed into the harborage areas.

#### **4. Concrete:**

- Treat concrete surfaces with a light coat of dust unless air movement in the room, heat treatments or A/C will blow the dust. If so, the wettable dust (spray) method is preferred.
- Alternatively, spray with EcoVia CA or the tank mix of EcoVia EC and FenvaStar EcoCap, if visible dust residue is a problem.

#### **Non-Porous Surfaces:**

##### **1. Finished Wood:**

- Do not treat finished wood surfaces of furniture with CimeXa or liquid insecticides.

##### **2. Metal Bed Frames, or Metal Furniture:**

- The best method for treating metal surfaces is with CimeXa using the wettable dust (spray) method. This will ensure a consistent coating that adheres to the slick surface.
- For voids in furniture (i.e. hollow legs, etc.), apply CimeXa as a dust, using a handheld or electric duster.

##### **3. Floors:**

- Do not treat hard surface floors, other than concrete. If bed bugs are found on these surfaces, physical removal using a vacuum is the preferred method.

##### **4. Wall Hangings - Pictures, Paintings, etc.:**

- Take care before treating decorative wall hangings such as pictures and paintings. It is important to know the difference between a picture and a painting. It is not recommended to treat paintings, as they are all priceless!
- Physical methods of removal, such as careful vacuuming, can be used to remove bed bugs and eggs from paintings.
- For picture frames/wall hangings, the preferred treatment is to brush CimeXa onto the edges, joints and crevices. Or lightly dust CimeXa in the small gap between pictures and walls.

##### **5. Window Coverings - Curtains, Curtain Rods, Drapes, Blinds:**

- Heat treat curtains or drapes or run through a clothes dryer if possible. If they cannot be dried, careful inspection will reveal any bed bugs and physical removal is preferred.
- If chemical treatment is necessary, brush CimeXa dust into folds, hems and tufts, or lightly spray EcoVia CA, assuming a test treatment shows no staining.
- Lightly dust vertical or horizontal blind tracks (adjust blinds on the track to reduce any dust drift).
- Dust the inside of hollow curtain rods, curtain hangers, and drapery holdbacks or ties.

##### **6. Wall Voids, Plumbing Chases, Behind Electrical Outlets, Carpet Tack Strips:**

- These sites are best treated with CimeXa using a hand held or electric duster.

## **Enhance Heat Treatments with CimeXa**

Heat is an excellent treatment for bedding, clothing, soft goods and other items on which it is undesirable to apply pesticides. Though it can be used, full premises heat treatment is generally unnecessary when using CimeXa, bearing in mind that heat provides no residual protection at all. Unlike many pesticides, **CimeXa is not affected by heat. In fact, dry, hot conditions will enhance the killing ability of CimeXa.**

During heat treatments, bed bugs scatter in search of cracks, crevices, and other protected areas to avoid the high temperatures. They often make their way into wall voids, door frames, furniture, and other areas that are difficult to heat and maintain temperatures high enough to kill bed bugs. When CimeXa is applied to cracks, crevices, and voids, before heat treatment, bed bugs have no place to hide, reducing expensive callbacks and re-treatments, and increasing profits. Alternatively, use CimeXa after heat treatments in harborage areas for long residual protection to prevent re-infestation, and to kill any bed bugs that may have escaped the heat.

## **EcoVia CA Contact Insecticide**

### **Contact Kill of Pyrethroid and Neonic Resistant Bed Bugs in as Little as 1 Minute!**

- Research-based botanical insecticide, EPA Exempt 25(b) product
- Easy-to-Use Aerosol for Surface and Crack & Crevice Treatment
- Works as an enclosed space flushing agent and fumigant
- Natural Cinnamon Spice Scent, Safe Around Children & Pets\*

\*When used as directed



*Always read and follow label directions. CimeXa, EcoVia, and Creating the Future of Pest Control are trademarks of Rockwell Labs Ltd.*

*©2021 Rockwell Labs Ltd*

*FenvaStar and EcoCap are trademarks of Farm Hannong America Inc., LG Chem.*