Fumigation with Vikane® gas fumigant is recommended when complete eradication of bed bugs is required.

Each bed bug infestation is unique and, therefore, requires a customized treatment plan. However, fumigation with Vikane® gas fumigant is the only treatment method that can reliably eradicate all bed bugs infesting a building, including the difficult-to-control egg stage. Once bed bugs are eliminated, it’s important to take steps to avoid reinfestation, as well as include regular professional inspections following the fumigation.

Recent research at the University of Kentucky and Virginia Tech has shown bed bugs have developed a resistance to some conventional treatments such as insecticides used in crack and crevice applications. Bed bugs currently show no resistance to Vikane when it is applied according to label directions by a pest management professional.

Label directions for Vikane give professionals the options needed to solve virtually every bed bug problem. Fumigation with Vikane can be conducted in one of the following ways:

- Whole-structure: Vikane can eliminate bed bugs from an entire structure and its contents by having the building temporarily sealed to hold the fumigant inside long enough to eliminate the pests. Household “clutter” can make it difficult to conduct a conventional crack and crevice insecticide treatment, but it is not a problem when fumigating with Vikane® gas fumigant.
- Compartmentalized: Infested sections of the building can be fumigated with Vikane, if they can be adequately sealed to contain the fumigant. This would still require the entire building to be vacated during the fumigation.
- Containerized: Household goods can be fumigated with Vikane in a chamber, trailer, truck or storage pod. This eliminates the need to throw out or discard valuable items such as box springs, mattresses, linens and clothing.

Fumigation is the best option for treating bed bugs when:

- Immediate eradication of bed bugs is required, such as in multunit dwellings (hotels, apartments and dormitories), when occupants are highly averse to pests or when there is zero tolerance for the infestation
- Repeated crack and crevice applications (liquids, dust and aerosols) have failed
- Other treatments may damage infested materials, such as high-value furnishings or custom mattresses
Fact Sheet for Vikane® Gas Fumigant (Sulfuryl Fluoride)

In the interest of Dow AgroSciences' commitment to product stewardship, this fact sheet is intended to provide basic information about the product and how it is used. If you have specific questions about your fumigation, refer to documents provided by the fumigator or call the fumigator listed on the warning signs posted on your structure. If you have questions about Vikane® gas fumigant (the fumigant used) or the procedures described, call the Dow AgroSciences Customer Information Center at 1-800-352-6776.

WHY BUILDINGS ARE FUMIGATED

Insects that feed or tunnel into wood can seriously damage houses, apartments, and other dwellings or structures. Each year termites or other wood destroying insects damage more than 5 million homes. Depending on the extent or location of the infestation, fumigation is the only total control method proven to eliminate certain infestations or wood destroying insects.

HOW BUILDINGS ARE FUMIGATED

Because Vikane is a gas, prior to fumigation, the structure is completely sealed. This serves to contain Vikane in the building so it can penetrate wood thoroughly and eliminate the pests. Depending on the construction of the building, the doors and windows may be sealed with tape and a plastic sheet, or the structure may be covered with a tarp. The building will remain sealed for 2-72 hours depending on the specifics of the job. Warning signs are posted around the building notifying people to keep out.

After the tarp or tape is removed, a professional fumigator will aerate the structure by opening the doors and windows. Fans may also be used to clear out the building. Once the dwelling has been thoroughly aerated, the fumigator is required to measure the level of any fumigant remaining in the living space to ensure it is below the EPA approved concentration for reentry by the occupants. Extremely low levels of fumigant can remain for a short period of time in dead air spaces between walls and inside cabinets as well as porous materials such as furniture. The small amount of fumigant in these areas will continue to dissipate for a few hours after the fumigation but at levels well below the established safe reentry concentration. Your building should not be cleared for reoccupancy until it is safe to enter. The fumigator will post a notice on your building indicating the day and time for reentry. Structures can be occupied only when the concentration is 1 part per million or less (this represents a margin of safety – laboratory animals have been exposed to 100 parts per million for 2 weeks with no adverse effects.)

Because Vikane is a true gas and not a vapor, aeration is rapid. Recent studies demonstrated that in most structures levels are less than 1 part per million within 6 hours of clearing and have no detectable levels of Vikane within 24 hours after the start of aeration.
Sulfuryl fluoride is a colorless, odorless gas, so a warning agent is added to the building that causes watery eyes and a scratchy throat. If you experience these symptoms in a structure that has been recently fumigated, you should leave immediately and call the pest control company to have your building retested.

**SULFURYL FLUORIDE (POTENTIAL HEALTH RISKS FROM OVEREXPOSURE)**

Sulfuryl fluoride is a gas and can potentially enter your body only through inhalation. Because it is a gas, it does not stay on dry surfaces, therefore, there is no exposure from touching treated surfaces.

*Nervous system and respiratory irritation:*

Overexposure to high levels of sulfuryl fluoride can result in nose and throat irritation and nausea. At high concentrations (such as those used during the fumigation) it can cause excess fluid in the lungs, sleepiness, pneumonia, and convulsions. These symptoms would be expected to appear within 8 hours after such an exposure. In the unlikely event you experience these symptoms in the building that has been recently fumigated, you should leave immediately. Consult your physician and call the pest control company to have your building retested.

**Additional studies:**

Sulfuryl fluoride has not been shown to cause birth defects in pregnant animals exposed under experimental conditions. In addition, current studies have demonstrated there are not mutagenic or genotoxic effects caused by exposure to sulfuryl fluoride.

**Safety Precautions and Homeowner Preparation**

- Discuss the treatment program in advance with your pest control company so you fully understand what will be done and what you need to do.
- Carefully follow the instructions you are given about what items you are to remove from your building.
- Stay out of the treated building until it is cleared for reentry.
- If you are interested or concerned, you should ask your pest control company to show the records of how your building was fumigated before it was cleared for reentry.
- You may wish to increase ventilation by opening doors and windows.

If you have specific questions about your fumigation, refer to documents provided by the fumigator or call the fumigator listed on the warning signs posted on your structure. Call the Dow AgroSciences Customer Information Center at 1-800-352-6776 if you need additional information or have questions concerning this product.
Know what needs to be bagged.

Thank you for choosing Vikane® gas fumigant, the treatment that is proven to rid your home of drywood termites. Now that you have chosen whole-structure fumigation with Vikane, certain steps must be taken to keep food items and other perishable goods protected during the fumigation process. It is important to know exactly which household items need to be double-bagged in special Nylolume® bags.

**Sealed items that will NOT require bagging:**
- Any food, feed, drugs (including tobacco products) and medicinals if sealed in glass, plastic or metal bottles, jars or cans with the original manufacturer's airtight seal intact.

**Opened items that will NOT require bagging:**
- Dental hygiene products (including toothpaste, mouthwash, dental adhesives, and dental whitening products)
- Cosmetics, including lipstick, and all externally applied lotions and ointments
- Ice and water

**Sample items that must be bagged or removed from the structure being fumigated:**

- Any food, feed, drugs and medicinals if not sealed in glass, plastic or metal bottles, jars or cans with the original manufacturer's airtight seal intact.

- Chips, pasta, bread, cereals, rice, cookies, crackers and any other items packaged in plastic, paper or cardboard bags or boxes, even if they have never been opened.

- Beverages, snacks, sauces, drugs, medicinals or other items in metallic foil-lined containers such as pouches, boxes or blister packs.

- Anything in resealable containers, including plastic containers, such as milk, butter, sour cream and cottage cheese.

- Eggs, fruits, vegetables and any other forms of produce.

- Medicine, tobacco, vitamins and other ingestible pills, supplements and lozenges if not sealed in glass, plastic or metal jars or cans with the original manufacturer's seal intact.

- Pet food and animal feed in bags and boxes.

**Do not forget those items in refrigerators and freezers.**

**When in doubt, take it out.**
Any products not listed above that may require protection should be bagged or removed from the structure being fumigated. If you have any questions about what should be bagged, please contact your local professional pest management company at (513) 761-9922.
Nylofume® bags: The trusted way to protect food, feed, drugs and medicinals from fumigations with Vikane®.

Nylofume bags are made from a special nylon polymer film. Research has shown that these nylon polymer bags are very effective for protecting a wide variety of commodities from Vikane fumigations when used one inside the other. The Nylofume bags should be “doubled-up” before you fill them with items that need protection.

All items such as food, feed, drugs and medicinals not adequately packaged (including those items in refrigerators and freezers) must either be removed from the structure being fumigated or sealed in the protective Nylofume bags.

To ensure a tight seal, please follow these instructions carefully:

1. While bags are still empty, place one inside another.
2. Place items inside the inner bag. Do NOT overfill — leave clearance on top for closure of the bags.
3. Repeat Step 3 with the outer bag.
4. Check the seal by pressing gently against the sides of the bag and listening for air leaks. No air should be able to escape.
5. Twist the top of the inner bag, fold once and secure the fold in place using tape or a twist tie.

Important: Keep these and other such bags out of the reach of children.

These materials have been created specifically for Vikane gas fumigant and no other structural fumigant. The information contained in these materials is based upon the product label and use instructions for Vikane and are not intended for use with other structural fumigants, which will have different product label requirements.

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Vikane is a federally Restricted Use Pesticide.
Always read and follow label instructions.
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Preparation Guidelines for Containment Fumigation
How to Leave the Bed Bugs Behind When Moving to a New Location

Bring as few items as possible when leaving a residence, fumigate everything possible. Remember, bed bugs hitchhiking in suitcases, back packs, boxes, clothing, bedding and pet cages is a common way for these insects to be introduced into buildings. Bed bugs have been found infesting small electronic devices, such as alarm clocks.

For all fabric items that will not be fumigated, wash in hot water and dry in high heat in a dryer (140°F) before moving them into your new residence. This includes clothing, blankets, pillows, stuffed toys and pet bedding.

Do not use boxes, suitcases, back packs, gym bags or any similar items from the infested residence to pack belongings that will remain with you. These items should remain with the contents to be fumigated. Pack belongings needed during the fumigation in light colored or clear plastic ziplock bags or plastic containers, such as sweater boxes or new luggage not previously stored in the infested residence. Ziplock bags come in XL sizes and can be purchased from Valley Termite & Pest Control, Target, or Lowes.

Do not place washed or packed items on furniture (beds, sofas, dressers, tables, etc.) or flooring (carpets or rugs) that may be infected with bed bugs. Immediately remove packed items from the infested residence or place them on a clean, hard surface (kitchen or bathroom floor, in a bath tub or shower) until they can be removed from the residence.

**We Do NOT fumigate anything that requires oxygen to breathe such as live plants.**

**Medicine** must be bagged, put in a sealed plastic container or removed. We will provide you with special fumigation bags and instructions for your medicine if you want to leave them in the structure during the fumigation.

You can fumigate toiletries (shampoos, soaps), makeup, toothpaste, laundry detergent, etc because these are items that you do not ingest.

All items for human consumption (such as foods, beverages, drugs, and medicines), which are not intact and has had the manufacturers seal broken even if they are in the original manufacturer’s airtight containers (such as sealed plastic, glass or metal), must be double bagged or removed before the fumigation. This includes the contents inside the refrigerators and freezers. Valley Termite & Pest Control will provide the proper bags and instructions at no additional fee.

Mattresses completely enveloped in plastic covers that cannot be removed or opened, such as infant mattresses, cannot be fumigated. These mattresses must be removed prior to fumigation. If there is any evidence that such a mattress is infested with bed bugs or the individual sleeping on the mattress has been bitten by bed bugs, it is advised that a new mattress be purchased.

CD, DVD’s and Photo Albums can be packed as is, they do not need to be removed from their cases or plastic sleeves.

**Pet cages and pet bedding should be fumigated.** Pet cages with any small gaps, seams or hollow spaces that could harbor bed bugs should be left with the contents to be fumigated. Food in the cages should be removed prior to the fumigation. The pets should be transferred to new travel cages or housing known not to be infested with bed bugs to remove them from the residence prior to the fumigation. Pet bedding/blankets should not be removed from the residence before the fumigation unless they can be washed, dried and packed as described above.

You may put small belongings into furniture that is being fumigated. Fill drawers with your belongings. Sulfuryl Fluoride will penetrate solid oak wood.

You may use cardboard boxes to pack for fumigation, **do not use anything plastic.** The fumigator cannot penetrate a sealed plastic bag or container.

**20% air space in required when loading a container, i.e. truck or trailer to be fumigated which allows for the fumigant to easily circulate.** Cardboard boxes used to pack contents can be filled 100%.

Valley Termite & Pest Control can render an intense, residual application to your new residence prior to moving in. Be aware, the gas will kill all life stages; eggs, nymphs, stages, and adults; however, as a gas it provides no residual action and therefore no permanent control or continuous protection and the items fumigated will be subject to re-infestation. Valley Termite & Pest Control can also offer you K-9 scent detection for bed bugs at your new residence prior to moving in.
Commonly asked questions:

What can be fumigated?
EVERYTHING should be fumigated except medicine, live plants and some food items. Please note the fumigant is a gas and leaves no residue; it is colorless, odorless and tasteless and completely dissipates during the aeration process.

Should I remove the encasement from my mattress before fumigation?
Yes, it is necessary to remove the encasement before fumigating the mattress.

Do I need to wash my clothes after the fumigation?
No, you do not need to wash anything after fumigation.

Is the fumigant safe on all of my belongings?
Yes, the fumigant can be used safely on electronics, musical equipment, clothes, artwork, books, photographs, etc. You do not need to throw anything out.

How do I pack properly for the fumigation?
Use cardboard boxes to pack for fumigation, do not use anything plastic. The fumigant cannot penetrate plastic bags or containers. If you have things stored in plastic storage containers transfer into cardboard boxes and fumigate the containers empty.

Can I fill the cardboard boxes?
Yes, cardboard boxes used to pack contents can be filled 100% and taped shut. The fumigant will penetrate the cardboard.

What about suitcases and storage trunks?
Fumigate suitcases and trunks empty. Leave them open so fumigant will be able to enter and circulate.

How do I prepare my clothes for fumigation?
Remove garment bags from hanging and folded clothes, linens, etc.

How do I protect breakable items?
Wrap breakables in paper, do not use bubble wrap.

We hope that this helps you in preparing for the fumigation. If you have any additional questions or concerns please do not hesitate to call our office at 513 761-9922.

I have received a copy of and have read the above in detail and accept without limitation the requirements and conditions therein. I understand that failure to adhere to the required guidelines regarding preparing contents for fumigation may result in an additional $50.00 per hour labor fee for repacking if necessary.

OWNER/AUTHORIZED AGENT ___________________________ DATE ____________
Now offering Bed Bug Canine Scent Detection!

Our specially trained dog detects bed bugs in:

- Homes
- Businesses
- Motels
- Theaters
- Schools
- Senior Facilities
- Nursing Homes
- Medical Facilities
- Hospitals
- Plus more

Call us today to schedule a bed bug inspection with our certified scent detection dog-Hershey!

*Live Bed Bugs and Live bed bug Eggs have a scent that is able to be detected by our specially trained canine!*

- Professionally Trained and Certified Dog
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- Fast, Cost Effective and Accurate

Valley Termite & Pest Control (513) 761-9922
We turn bed bugs into dead bugs!
Valley Termite & Pest Control Bed Bug Prevention

The classic signs of bed bug infestations are reddish colored bites that are itchy, dark fecal spotting, blood smears, adult bugs, molts of the shell, small bed bugs and tiny, whitish colored eggs. These bed bug prevention tips will help you lower your chances of getting bed bugs. However, a full bed bug evaluation by the trained experts and our canine detection unit at Valley Termite & Pest Control is recommended:

1. Wash and dry bedding and clothing regularly at the highest temperatures possible, 120 degrees or more is best. Vacuum floors regularly. Use the brush tool of your vacuum to vacuum your mattress. Use the crevice tool to vacuum crevices in the mattress and your baseboards.

2. Use a cloth mattress protector over your mattress and box springs. This prevents you from getting bed bugs inside your mattress and box spring and saves you from having to treat them or throw them away. Check your bed for signs of bed bugs from time to time. Catching bed bugs early makes bed bug treatments easier and allows you to get rid of them faster.

3. It is best not to purchase or bring home any used furniture. If you do, make sure to examine it for sign of bed bugs. Pay special attention to dark fecal spots that may be on the inside seams and corners of used mattresses and bed frames.

4. Store laundered items and items from dresser drawers and nightstands inside of large, sealed Ziplock bags; air-tight containers or large trash bags. The best places to keep your bagged items are in the bathtub or on cold tile floors of bathrooms and kitchens. The more you can clear away from a bed, couch or chair; and keep off of the floor, the better.

5. What to do if you leave work or any place that you suspect may have bed bugs: Leave purses and bags at home or in your car before entering. Before leaving, change your clothes and place them in a sealed Ziplock bag so that you do not bring bed bugs or their eggs in your car. After leaving, wash and dry your clothing immediately. Check any items or bags that you did bring in for signs of bed bugs. Treat these items if necessary, by washing and drying them, spraying or dusting them with a residual product, or have them fumigated.

6. Always keep personal belongings, such as your purse, bag, book bag, briefcase or coat on your lap whenever possible. Avoid putting these items on the floor, on another chair or on a coat rack. Bed Bugs are traveling insects, or "hitchhikers" and leaving your items lying around is the perfect way for them to crawl in and hitch a ride home with you.

7. What to do when traveling: Ask the hotel receptionist what their bed bug history is before making your travel selections. Before bringing your luggage in the room, check for signs of bed bugs. The head board is the first place to check for dark fecal spotting, along with picture frames above the bed, night stands and of course beds and chairs. Even recently renovated rooms with new furniture can still harbor bed bugs and their eggs, so it is a good idea to keep an eye on any peeled wall paper at the top of the walls and dark spotting from the fecal matter left behind.