



How to Decide When to Re-enter After Fogging

Author: Tommy Powell

WHEN FOGGING IN A STRUCTURE the label normally says something like "Do not allow ______ to enter until ____ product has been thoroughly ventilated." The rule of thumb for proper ventilation is at least 3 exchanges of the air volume. That makes sense, but how long does that take? The EPA has some guidelines for residential homes:

> The rate at which outdoor air replaces indoor air is described as the air exchange rate. ASHRAE (formerly called the American Society of Heating, Refrigerating and Air-Conditioning Engineers) recommends (in its Standard 62.2-2016, "Ventilation and Acceptable Indoor Air Quality in Residential Buildings") that homes receive 0.35 air changes per hour as the minimum ventilation rates in residential buildings in order to provide IAQ that is acceptable to human occupants and that minimizes adverse health effects.

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Most home heating and cooling systems, including forced air heating systems, do not mechanically bring fresh air into the house. Outdoor air enters and leaves a house by:

- Natural ventilation, such as through open windows and doors.
- Infiltration, a process by which outdoor air flows into the house through openings, joints and cracks in walls, floors and ceilings, and around windows and doors.
- Mechanical means, such as through outdoor air intakes associated with the heating, ventilation and air conditioning (HVAC) system; outdoor-vented fans that intermittently remove air from a single room, such as bathrooms and kitchens.

So if you rely on the homes HVAC system through the infiltration process (minimum of 0.35 air changes per hour) it would 8.6 hours to properly ventilate a residential home. That is why using mechanical and/or natural ventilation is so important. Opening windows and doors, operating window or attic fans, or running a window air conditioner with the vent control open increases the outdoor ventilation rate. Most HVAC systems can circulate all of the air in the home every 30 mins. That means using the fan option on your HVAC system and mechanical and/or natural ventilation could reduce proper ventilation time to an hour and thirty minutes. For commercial facilities my recommendation is to meet with the maintenance department and/or company that services the HVAC system to determine the air exchange rate. Public facilities have a higher minimum standard than residential homes.

All About Actisols

Author: JB Howell

HOW I LOVE THAT WONDERFUL HUM OF AN ACTISOL MACHINE! The pitter patter of roaches falling from greasy poorly maintained kitchen equipment, the hiss from the wand. It almost makes me miss the days of commercial kitchen cleanouts. Then memories of painful knees due to hours of crawling on tile floors quickly remedies my nostalgia.

These wonderful tools offer an excellent

solution for delivering products into deep and difficult-to-treat voids and harborages. It's the ultimate crack and crevice or void treatment tool. This unit was not designed to space treat entire rooms (yes, I have seen it done), but there are better methods for space sprays. The compact unit is designed to fill small voids with product, killing pests in their hiding places

or flushing them out to run through your residual treatment. Think of them as the ultimate aerosol can. They can be used with both oil- and water-based insecticides making them very versatile. Additional uses are made with customized extension wands to allow applications into eaves and other common bee nesting sites. These extended wands reduce the need for ladders and allows pinpoint application from further distances. These long-range applications are where pressure control becomes critical. The higher you go the higher your pressure will need to be. I know we all have the impulse to crank the unit to 25psi when flushing, but don't. You want lower pressures to allow product to flow thru the void not blast the back wall and run down as a liquid. This just creates a puddle and more cleanup at the end of a job.

More recently Actisols have been increasingly used to deliver sanitizers. Whatever you use I highly recommend backflushing at the end of each day to ensure your equipment is ready for use the next time you need it.

For backflushing instructions visit: https://www.mgk.com/?s=actisol or Actisol.com

Droplet Size: Why Does it Matter?

Author: Sandra Sleezer

EACH TYPE OF SPRAY PATTERN has a specific micron size associated with it. The micron size can affect an application of insecticide in some important ways. The larger the droplet size the quicker it will fall out of the air and onto a surface. The smaller the droplet size the longer it will remain suspended in the air before it falls onto a surface. Some factors that affect droplet size are pressure, viscosity, fluid temperature, and surface tension. Increased pressure and increased fluid temperature both decrease droplet size. Increased viscosity and increased surface tension both decrease droplet size. Knowing these factors you can increase or decrease the droplet sizes to suit the specific needs for each situation.

So Many Fogging Products, So Little Time!

There are many fogging products on the market. Have you ever questioned as to what are the differences and which one should I use? This chart will help you easily see the key differences in each of the MGK fogging products. Of course, you should always read the entire label for proper use instructions, but this table should help you narrow down the list to a few you may be more interested in for your specific situation.

FOGGING CONCENTRATES • **OUICK REFERENCE** Space & Surface Residential Synergized Contains Food Synergized Water Spraying, ULV Thermal Aerosol Processing ULV Pyrethrins Pyrethroid Based Based IGR Crack & Crevice, Flushing WATER BASED / EVERMEN EVER / el:__\ PRO 60-6 RIPT DE Waterbased Pvrethrin ULV ECTOR / 1 Misting Concentrate VAM)PYRE 1 1 OIL BASED Pyrocide 100 1 / Pyrocide 300 1 1 1 1 SHOCKWAVE FOGGING CONCENTRATE **ULD[®]BP-100 ULD[®]BP-300** /

NyGuard may be added to any of the above in all application methods.

SPRAY PATTERN	MICRON Size Range
Coarse Spray	400 and Larger
Fine Spray	100 to 400
Mist	50 to 100
Aerosols & Fogs	0.1 to 50
Fumes & Smokes	0.001 to 0.1

Droplet size is important outdoors where drift onto non-target areas can occur. The very small size of droplets produced with fogging make it difficult to ensure the product does not drift into an area where you don't want it to go. Always be aware of the wind speed if you are fogging outdoors. Obviously indoors, a fogging application is less likely to drift off target. However, with the lack of air flow while fogging indoors, proper PPE is essential. You can't stand up-wind of the fog in an enclosed space! But, the long hang time of the smaller droplets can be beneficial for targeting flying pests and to get into spaces other applications might not be able to penetrate. AVERAGE SIZES

HUMAN HAIR 70 AEROSOL SPRAY 50 ULV FOGGER 20 THERMAL FOGGER 5

To Fog or Not to Fog

Author: Tommy Powell

TO FOG OR NOT TO FOG IS THE QUESTION I AM OFTEN ASKED WHEN TREATING GERMAN COCKROACHES IN COMMERCIAL KITCHENS



THERE ARE TWO REASONS why a pest management professional should consider fogging to control German cockroaches.

1 THE FIRST INSTANCE is for new services. It is important to understand what the previous company did to treat an infestation and to offer alternatives to the client. I always recommend fogging a drop ceiling on all new commercial facilities. Too often companies neglect potential harborage areas that can be found in a drop ceiling. To a German cockroach drop ceilings are a great place to find undisturbed harborage areas close to food and water sources. First determine if your new customer's drop ceiling can be treated.

- Make sure your customer does not share the same ceiling space as the facility next to them.
- Ensure all pilot lights on stoves and vent hoods or fans are turned off.
- Cover any food prep surfaces before you treat.

The key to long-term German cockroach control in a drop ceiling is to treat with an IGR. The IGR will help you gain control of the population. I recommend using an all-in-one product like Shockwave® Fogging Concentrate that already contains NyGuard IGR, or adding the IGR separately if needed.



2 THE SECOND REASON I would

recommend fogging in a drop ceiling is for a current account that that you are finding hard to gain control. Repeating treatments, the same way you have always treated, doesn't always work. When control becomes difficult and frustrating try mixing things up and use alternative options to gain control like fogging.

I realize that a drop ceiling can be treated without fogging. In my experience using bait products requires a great deal of time to treat with a poor return on results. It requires moving a ladder around the kitchen every 5 to 10 feet. Also, it can be a challenge to remove the ceiling panels while taking care not to break one. Finally, it is difficult during followup services to inspect previously baited areas. I have found that fogging is an easier process with a better return.

Don't Fog in a Fog

Author: JB Howell

THERE ARE SEVERAL THINGS you should do before performing a fogging treatment. If you are experienced at fogging you know it will take some time, preparation, and forethought to do it right. If you are new to fogging, check out this list of things to consider before fogging an area.

PRE-TREATMENT

- Determine product to be used (oil- or water based)
- Read label directions and PPE requirements
- Be aware of temperature concerns
- Calibrate fogger
- Calculate volume of area (L x W x H)
- Calculate time to treat (delivery rate and volume of space)
- Use a respirator
- Evacuate the building
- Cover aquariums and green plants when using oil-based products

- Store or remove food and utensils
- Cover food handling surfaces
- Close and lock doors and windows
- When using oil-based products, turn off pilot lights, ventilation fans and blowers
 - If treating a potentially hazardous area (flour mill) do not use a gas engine
- Electric motors must be explosion-proof
 Open cabinet doors and drawers where
- target pests are infesting

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