Over 500 fires and explosions a year in the United States are caused by total release foggers, also known as “bug bombs.” According to the EPA, these pesticide products contain aerosol propellants that release their contents all at once to fumigate an area to kill pests such as cockroaches, mice and fleas. Because these aerosol propellants are highly flammable, improper use may cause a fire or explosion. Some cities, such as Philadelphia, require that before you use a fogger you notify the fire department and all occupants of the building 24 hours in advance, post warning signs, vacate the property, have approved breathing apparatus available, and post a watchman. In addition, since foggers are so flammable, all ignition sources must be turned off, including pilot lights, other open flames and electricity.

According to the EPA, many accidents involving total release foggers have occurred when homeowners release an excessive amount of fogging material and forget to turn off an ignition source. In 2003, a San Diego house was blown apart when residents planted 19 bug bombs in a house and forgot to extinguish a wall heater pilot light. Luckily, no one was hurt (including the cockroaches). According to Steve Jacobs, extension entomologist at Penn State, the most effective way to reduce or eliminate pest problems and risks posed by pesticides is to prevent these pests from entering your home in the first place. “Around the home, remove sources of food and water, such as repairing leaky pipes, and destroy pest shelters and breeding sites by removing litter and plant debris.” Jacobs says that besides being flammable, insect foggers are potentially toxic to humans and pets. “Exposed food and dishes must be removed or covered before using a fogger, and all people, pets and plants must be removed from the house.”

If a homeowner has a severe pest infestation and residents’ IPM tactics aren’t working, Jacobs recommends they forgo using “over the counter” foggers and seek assistance from a professional pest control company. “Experienced companies know about the biology of the pests and what to look for, are schooled in proper pest management techniques, and have an assortment of management tools at their disposal.”

Many people are unaware pests such as cockroaches and rodents are asthma triggers, as are them, including foggers. “Indoor air quality has a big effect on asthma sufferers, especially children who spend most of their time indoors at home and at school,” says Lyn Garling of the Pennsylvania IPM program. “One component of indoor air quality includes the levels of pests and pesticide use inside buildings.”