

## **Guidelines for Cleaning up Former Methamphetamine Labs**

Methamphetamine (meth) drug labs are not a new hazard to Iowa. In 2003, federal, state and local authorities seized more than 1,100 Iowa labs, and the number of labs seized increases each year. These labs are discovered in houses, apartments, motel rooms, motor vehicles, and even an occasional combine.

Since meth labs are an emerging problem, there is currently no official federal guidance or regulations on how to clean up a former meth lab. The Iowa Department of Public Health, Bureau of Toxicology, has created these basic guidelines to assist public health officials, property owners and the general public in cleaning up former meth lab properties.

### **How can you find out if a property has been used to make meth?**

In Iowa there is no tracking method or general listing for homes that were used as meth labs. You should call your local law enforcement agency to inquire if the property has ever been used for the manufacturing of meth. If a meth lab did exist, the hazardous material contractor should have information on what chemicals were present on the property. Additional information may be available from your county health department, fire department, or the owner of the property.

### **Why the concern about cleaning up illegal meth labs?**

After the bulk of any lab-related debris, such as chemicals and containers have been removed, it is possible that a small amount of contamination may accidentally be left on surfaces and in absorbent materials (carpets, furniture), sinks, drains and ventilation systems. Though found in small amounts, meth lab contaminants may pose health threats to persons exposed to them.

### **What chemicals is meth made from?**

Meth is made from common, easily available materials, using one of several basic chemical processes. There are hundreds of chemical products and substances that are used interchangeably to produce meth. Poor handling and disposal of these chemicals can create hazards. Common chemicals used to manufacture meth include, Freon, ether (starting fluid), toluene (paint thinner), pseudoephedrine (cold medicine), sulfuric acid (drain cleaner), anhydrous ammonia, iodine, muriatic acid, and lithium (camera batteries). Other hazardous chemicals can be formed when ingredients are heated during the “cooking” process.

As a result of the “cooking” process, these chemicals or their fumes may contaminate a property. Household materials such as carpeting, wallboard, ceiling tile and fabric may absorb spilled chemicals. Furniture or draperies may also become contaminated. If chemicals are dumped in a septic system or on the ground, soil or groundwater may become contaminated.

### **What are possible health effects from exposure to meth lab chemicals?**

Because of the chemicals present during meth's cooking process, there is a high risk for acute exposure that can be harmful. Short-term exposure to high concentrations of chemicals that may exist can cause adverse health problems such as respiratory (breathing) problems, skin and eye irritation, headaches, nausea and dizziness. For this reason, meth “cookers,” their families and first responders are at highest risk of severe health effects including lung damage and chemical burns.

After a bust and seizure of a meth lab, there is often only a low exposure risk to chemical residues, but this contamination needs to be cleaned up. There is little known about the health effects from chronic (long-term) exposure to contaminants left behind after a meth lab is dismantled. IDPH advises property owners to exercise caution and use the safest possible methods for cleaning a former meth lab property and any possible remaining contamination.

### **How can the property be cleaned up?**

Since illegal drug labs are an emerging problem, there is currently no official guidance or regulations on how to clean up former meth lab properties.

There are no clean up standards inside a building or home for the many chemicals associated with meth labs. IDPH is working to find an answer that will protect the public and be practical for property owners. Clean up level advice has ranged from doing nothing to complete demolition. Until cleanup standards can be determined, IDPH advises owners to do their best to thoroughly clean up these properties.

IDPH believes that the safest way to clean up a former meth lab is to hire an environmental company trained in hazardous substance removal and clean up. Owners who decide to clean properties on their own should be aware that household building materials and furniture may have absorbed contaminants and may give off fumes. Use caution and wear clothing to protect your skin, such as gloves, long sleeves, and eye protection during cleaning.

### **General guidelines for cleaning former meth labs:**

#### *Air out the property*

Hazardous material contractors are generally called in to remove lab waste and any bulk chemicals after a lab has been seized by law enforcement. During this removal, efforts are made to air out the property for the safety of the removal crew. For security reasons, the property is usually closed upon their departure. This short-term airing-out may not be sufficient to clear out all the contaminants from the air inside the home. Be sure the property has been aired out for several days before cleaning. Good ventilation should be continued throughout the property's cleanup.

To promote the volatilization (dissolving into the air) of some chemicals, windows and doors may be closed and the temperature inside the home increased to approximately 90 degrees Fahrenheit for a few days. After cleaning and heating is complete, the property should be aired out for three to five days to allow for any volatiles to disperse from the house. Open all windows and set up exhaust fans to circulate air out of the house. During this time, the property should remain off limits unless it is necessary to make short visits.

After the cleaning and final three to five days of airing-out, the property should be checked for re-staining and odors, which would indicate that the

initial cleaning was not successful. Additional, more extensive steps will need to be taken to complete the cleaning process.

### *Contamination removal and disposal*

During the meth “cooking” process, spilled chemicals, supplies and equipment may contaminate household items. Remove, double-bag, and properly dispose of any items that are visibly contaminated. Absorbent materials, such as carpeting, drapes, clothing, and furniture can accumulate dust or splattered chemicals. It is recommended these materials be disposed of if an odor or staining is present. These contaminated items, if properly double-bagged, may be disposed along with regular household trash.

If you find suspicious containers or lab equipment at the property, do not handle them yourself. Leave the area and contact your local law enforcement agency or fire department. It is possible that some items may have been left behind after a seizure. If a hazardous materials cleanup team has searched the property, the items have most likely been identified and are not dangerous. However, some properties may not have been searched or some items may have been overlooked in the debris or confusion.

### *Surfaces*

Surfaces, such as walls, counters, floors, ceilings, etc. are porous and can hold contamination from the meth cooking process, especially in those areas where the active lab existed. Cleaning these areas is very important because of frequent contact with these surfaces such as food preparation. Where appropriate, painting should be considered after cleaning especially where contamination was found or suspected. Painting the surface puts a barrier between the contamination and anyone who may come in contact with those surfaces.

If a surface has visible contamination, staining, or gives off odors, complete removal and replacement of the surface is recommended. This may include removal and replacement of wallboard, floor coverings, and counters.

Normal household cleaning methods and products will remove almost all remaining contamination. Don't forget to wear gloves, protective clothing,

such as long sleeves, and eye protection. Ventilation of the property should be continued throughout the cleaning process.

### *Ventilation system*

Ventilation systems (heating, air conditioning) tend to collect fumes and dust and redistribute them throughout a home. The vents, ductwork, and filters can become contaminated. It is recommended to replace all of the air filters in the system, remove and clean vents, clean the surfaces (such as walls and ceilings) near system inlets and outlets, and clean the system's ductwork.

### *Plumbing*

Sinks, drains, tubs and toilets are frequently used for the disposal of waste products generated during the meth manufacturing process. These waste products can collect in drains, traps, and septic tanks and give off fumes. If a strong chemical odor is coming from household plumbing or if you suspect the septic tank or yard may be contaminated, do not attempt to address the problem yourself. Contact an environmental clean up contractor or your local health department.

### **Should testing be done after cleanup?**

If, after cleaning the property using these guidelines, you are still concerned about any remaining contamination, or if your property still has an odor or causes physical irritation to those exposed, it is advisable to have the property evaluated and tested. If you are concerned with liability issues, you should consider having the property tested. Sampling is an expensive option, but may provide peace of mind for property owners and families. You may want to contact your insurance carrier for advice and assistance.

### **Remember these steps to cleaning a former meth property:**

1. *Contact your local law enforcement agency to determine what chemicals were present on the property.*

2. Thoroughly air out the property before and during cleanup.
3. Remove all unnecessary items and dispose of them.
4. Remove visibly contaminated items or items that have an odor.
5. Clean all surfaces using household cleaning methods and proper personal protection.
6. Clean the ventilation system.
7. Leave plumbing cleaning to the experts.
8. Air out the property for three to five days.
9. If odor or staining remains, have your home evaluated by a professional.

Failure to properly clean former meth lab sites may result in continued exposure of occupants to chemicals. This may cause health or safety problems and may affect the value and future use of property. Property where a former meth lab was found is public record. Retain all documents of professional cleaning. If non-professionals do the cleaning, document the cleanup procedures.

**Have questions or need more information? Contact:**

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For a listing of environmental contractors go to  
<http://www.iowadnr.com/spills/files/hazcontractors.pdf>.