

# Mercury Spill Information and Cleanup Guide

## Background Information

Although, mercury performs many useful functions, it is toxic to humans and wildlife and should be managed properly. When liquid (elemental) mercury is spilled, it forms beads or droplets that can accumulate in the tiniest places. These droplets can emit vapors into the air that we cannot see or smell. Breathing mercury vapors can be very dangerous, depending on how much mercury is in the air and how long you breathe the contaminated air.

## Laws ban mercury in schools

The Indiana Legislature passed a law in 2003 banning mercury and mercury-containing instructional equipment (unless there is no mercury-free substitute) and materials from Indiana schools. For this reason, there should be no mercury or mercury instruments in our school and every effort should be made to ensure that we the staff and our student do not bring such items into our school.

## What to do when mercury is spilled

The Indiana Department of Environmental Management (IDEM) recommends having a professional emergency contractor clean up mercury spills. If the spill is minor, such as one smaller than a pea, school or school district staff trained in hazardous materials spill cleanups may take on cleanup responsibilities. For Trinity Christian School that person will be Brenda Combs ext. 225.

## Spill Response Action Steps for Liquid Mercury:

1. The three people who have been designated to evaluate the spill will be.... Pastor Ronald Ragan, Brian Immel, & Brenda Combs.
2. We will evaluate the spill. If the mercury was spilled on a heat source or if it was somehow vaporized and or atomized (e.g., vacuumed), exposures can be severe. We will consider evacuating the building. And if someone ingested mercury, someone in charge will call the poison center at 1-800-222-1222.
3. If the spill was larger the size of a pea or if you think it may have been tracked into other rooms, IDEM Spill Hotline will be called immediately, (888)233-7745 or (317) 233-7745. The spill line is staffed 24 hour/ day, 365 days/ year.
4. Determine if anyone involved in the spill has become contaminated with mercury on their clothes, shoes, or skin. Contaminated individuals should remain where they are to avoid spreading mercury to other areas. They will be decontaminated
5. Everyone who is not contaminated or helping with the cleanup, including children and pets (school approved), should leave the area immediately. Be careful when evacuating – make sure not one walks through the mercury spill!

6. Immediately open the room's outside windows and exterior doors to provide ventilation.
7. Close off the room from the rest of the building by closing all interior doors and windows. Close all cold-air returns so that mercury vapor is not carried throughout the ventilation system. Turn off fans unless they vent to the outdoors. Use portable fans to blow mercury-contaminated air outdoors.
8. Anyone helping to decontaminate individuals or cleanup mercury should put on rubber or latex gloves.
9. Help the contaminated individuals remove contaminated clothing and/or shoes very carefully so as to avoid dislodging and spreading attached mercury. Place the contaminated clothing and/or shoes into a rigid container with a lid (or a trash bag may be used as a temporary container). Use the sticky side of a piece of duct tape to carefully remove any mercury that may be clinging to exposed skin. Place the pieces of duct tape with adhered mercury into a sealable baggie and place it in the rigid container with the contaminated clothes. Used gloves should also be placed in the rigid container. Seal the container with the lid. Individuals should use clean clothes and shoes to replace their contaminated items. As soon as individuals are de-contaminated, they should evacuate the area, being careful not to walk through the mercury spill.
10. Turn off the ventilation and cooling system to the spill area. If possible, all air ducts to the room should be closed temporarily. Contain any items contaminated with mercury in a rigid container or plastic trash bag. Seal the container with a lid. Take the mercury and other clean up material such as used glove to your local household hazardous waste program for recycling.

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**Indianapolis, In. 46203**

**317-264-7555**

Notes:

- NEVER use an ordinary vacuum or shop vacuum to clean up liquid mercury. Vacuuming mercury will blow vapors into the area, thereby increasing the likelihood of human exposure, and will contaminate the vacuum cleaner. A contaminate vacuum cleaner should be taken to a mercury collection program.
- NEVER use a broom or a paintbrush to clean up mercury. It will break the mercury into smaller beads and further scatter the mercury.
- NEVER use household cleaning products, especially those containing chlorine or ammonia, because they may react violently with the mercury and release toxic gases.
- NEVER allow people whose shoes or clothing may be contaminated with mercury to walk around the school.
- NEVER put mercury in the trash.
- NEVER throw fluorescent or high-intensity discharge lamps in the garbage or trash. These bulbs contain mercury. They will should and will be taken to our local hazardous waste facility.

- NEVER pour or allow mercury to go down a drain. Mercury becomes lodged in pipes, pollutes wastewater-treatment plants and makes its way to our lakes and streams. There it can contaminate fish and the animals and people who eat them.
- Any total spill of more than a pea-sized bead of mercury is considered a large spill! A spill of this magnitude in a school should be considered very serious! IDEM will be called immediately (888) 233-7745
- If the mercury spill is on a porous surface such as a carpet, or if the mercury droplets are widely dispersed in a room, IDEM hotline will be call for assistance. (888) 233-7745

Most spills of elemental mercury have little potential to create health issues as long as the spill is properly cleaned up and mercury is not tracked to another location.

**Cleaning up Broken Fluorescent Bulbs:**

Fluorescent tubes, compact fluorescent lamps, and high-intensity discharge lights used for exterior lighting all contain a small amount of mercury vapors. These bulbs should be managed properly by recycling and by never changing bulbs when children are present in the same room. Placing these bulbs in the trash is not recommended and in some instances, may be illegal. New and used fluorescent lamps, which contain mercury, may be stored in custodial areas. Fluorescent bulbs should be recycled whole and unbroken.

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When they break, they should be cleaned up in the following manner:

1. Clear the room of all students and staff.
2. If more than two bulbs were broken, IDEM hotline will be called (888)233-7745 or (317) 233-7745 for clean up and disposal instructions. If two or fewer bulbs were broken, follow the steps below.
3. Open any outside window, close all interior doors and windows, and leave the room for 15 minutes.
4. Wear rubber gloves and carefully pick up all glass shards and any remaining powder with duct tape or other sticky tape.
5. Wash the area with soapy water using disposable towels and dry the area with disposable towels.
6. If a bulb breaks on carpet, follow steps 1, 3, and4. After all visible signs of the bulb have been removed from the carpet, you may vacuum the area.
7. Put all glass, tape, disposable towels and vacuum cleaner bag ( or contents of a bagless vacuum ) into a rigid container. Seal the container with a lid.
8. Air out the incident room for 12 to 24 hours.

9. Take the broken bulb and other clean up materials such as used gloves to **Keep Indianapolis Beautiful 1029 Fletcher Ave. Indianapolis, In. 46203. 317-264-7555**

### **More than 2 bulbs were broken**

**Clear the room of all students and staff!!**

**Call the IDEM spill hotline at (888)233-7745.**

### **1 or 2 bulbs were broken**

**Clear the room of all students and staff!!**

**We can safely clean up this spill ourselves. Follow steps 3 – 9 above for proper clean up procedures.**

#### **Why is spilled mercury a concern?**

Mercury is a toxin that can affect the nervous system of humans. It can also damage the liver and kidneys. Even small amounts of spilled mercury may become a health hazard if it is not properly controlled and cleaned. Heating mercury or failing to clean up a spill can lead to a large exposure or long-term exposure to lower amounts of mercury. Both can impact your health.

The small amount of elemental mercury in fever thermometers and thermostats is not likely to cause serious health problems if it is immediately cleaned up. The mercury in a broken fluorescent light bulb is not readily visible, but broken bulbs should also be cleaned up immediately.

Most symptoms of mercury exposure are subtle and reversible upon removal of exposure. Symptoms of a large exposure to mercury may include pink skin, skin rashes or lesions, muscle tremors, personality and behavioral changes, memory loss, and damage to the kidneys and central nervous system.

#### **The best advice: keep mercury out of our school**

Because there is a ban on the purchase and use of mercury in Indiana schools, we are bound by law to refrain from purchasing products and devices that contain mercury or mercury compounds, except fluorescent lamps.

Fortunately, Mercury-free substitutes exist for just about everything that would be used in a school:

Alcohol (red bulb) and isoamyl benzoate (blue bulb) and digital lab and fever thermometers,

Electronic thermostats and switches,

Aneroid blood-pressure units, and  
Digital barometers and other gauges.

**Sources:**

Indiana Department of environmental Management “Mercury Spill Information and Cleanup Guidance”: [www.in.gov/idem/files/mercury\\_spill.pdf](http://www.in.gov/idem/files/mercury_spill.pdf)