



FACT SHEET

Household Mercury Spills

Liquid mercury or “quicksilver” (also known as elemental or metallic mercury) is found in a variety of household items. Exposed mercury can evaporate and become an invisible, odorless toxic vapor that can be harmful if inhaled. Getting mercury on your skin or ingesting mercury is also hazardous. Therefore any spill – including mercury from a broken thermometer – is serious.



First steps if there is a spill

1. Do not touch the mercury.
2. Get people and pets out of the area and take care they don't walk through the mercury.
3. Turn off heating, air conditioning and ventilation systems that could spread the vapors.
4. Open windows and doors to the outside for ventilation.
5. Assess the situation.

If the spill is larger than the amount from a fever thermometer (.5 to .7 grams), get professional help. Call the Kentucky Environmental Response Team at (502) 564-2380 or (800) 928-2380. If the spill is one pound (about two tablespoons) or more, you must also call the National Response Center's 24-hour hotline: (800) 424-8802 or (202) 267-2675.

What not to do

- × Don't use a vacuum cleaner. Heat from the vacuum cleaner will vaporize the mercury and further distribute it through the house.
- × Don't use a broom or try to soak up the mercury with a rag. That will break up and scatter the mercury beads.
- × Don't use household cleaning products – especially those with ammonia or chlorine. Those chemicals combine with mercury to create a toxic gas.
- × Don't pour mercury down a drain or wash contaminated items in your washing machine.



Cleaning up small spills

Small spills (the amount from a thermometer or less) can be cleaned up from hard surfaces like wood or tile using a mercury spill kit or ordinary household materials. Children and pregnant women should not assist with the cleanup. Follow these steps when cleaning up a small spill:

- ✓ Use protective gear (liquid-proof gloves and eye protection) and remove jewelry and watches before beginning the cleanup. Mercury will bond with metal.
- ✓ Pick up broken glass and place in a paper towel. Fold the paper towel and place in a Ziploc bag or other vapor-proof unbreakable container.
- ✓ Locate visible mercury beads. Using a flashlight is helpful. Remember: those little beads can roll far away from the spill site or hide in cracks or grooves.
- ✓ Pick up the beads. Some recommended techniques for rounding up mercury:
 - ▶ Use two stiff pieces of paper (like two index cards) or a squeegee and paper to corral larger beads.
 - ▶ Collect smaller beads with an eyedropper or put shaving cream on a brush and daub up the beads or use duct tape to pick them up.
- ✓ As you work, place the beads on a paper towel in a Ziploc bag and seal.
- ✓ When you are finished, place the container, any tools you used including gloves, and contaminated shoes and clothing into a garbage bag – double-bag it for good measure.
- ✓ Wash your hands thoroughly with soap and water.

- ✓ Contact the complaints coordinator at the Division of Waste Management for information on safe disposal of your bagged mercury waste. Call (502) 564-6716 or e-mail waste@ky.gov
- ✓ Weather permitting keep the area well ventilated to the outside for 24 hours.

More detailed cleanup tips, including information about larger spills, can be found in a U.S. Environmental Protection Agency (EPA) publication: *Spills, Disposal and Site Cleanup*, online at <http://www.epa.gov/mercury/disposal.htm>

The Kentucky Pollution Prevention Center has a fact sheet online, *What You Need to Know About Compact Fluorescent Light Bulbs*, that has information mercury and CFL light bulbs. <http://www.kppc.org/Publications/Print%20Materials/CFL%20Fact%20Sheet.pdf>

Problem cleanups

Mercury on carpet or cloth that is not tightly woven – This type of material cannot be successfully decontaminated and should be double bagged. Seal the bags with tape. Note: Only cut and remove the contaminated part of the carpet.

Mercury in a sink of water – Mercury will sink to the bottom. Remove as much water without disturbing the mercury and recover the mercury with an eyedropper. Place in a wide-mouth container, close the lid and seal it with tape.

Mercury in a drain -- Mercury will get caught in your sink trap. Working over a tray, remove the trap and pour the contents into wide-mouth container. Close the container lid and seal with tape.

Medical follow-ups

If a small child or pregnant woman has been exposed to mercury, contact a health professional. Seek medical advice if you have any symptoms you think may be related to mercury exposure. EPA has information about health effects online at <http://www.epa.gov/mercury/effects.htm>

Sources for this fact sheet are EPA, Wisconsin Department of Natural Resources and Earth 911 publications.

Mercury in Schools

Public Health Instructions for School Officials Regarding Mercury Spills – Guidelines put together by Kentucky agencies including the departments of Public Health, Education and Environmental Protection.

EPA publications -- *Information for parents of children exposed to mercury spills* <http://www.epa.gov/mercury/health.htm> and *Information about eliminating mercury from schools* <http://www.epa.gov/mercury/schools.htm>

Mercury In Schools – <http://www.mercuryinschools.uwex.edu/index.htm> (developed by the University of Wisconsin Extension's Solid and Hazardous Waste Education Center with EPA funding) and <http://www.p2pays.org/mercury/school.asp> (a North Carolina site).



Kentucky Division of Waste Management

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April 2007



Public Health Instructions for School Officials Regarding Mercury Spills

Instructions for School Officials regarding possible mercury spills: DO's

- Isolate/quarantine – isolate those students that might have been exposed to the mercury. This is best done in a location outside of the school building (in fresh air) weather permitting. If the students are quarantined inside the school building, do so in a **Non-carpeted** room. Carpets are easily contaminated by the student's shoes and difficult to decontaminate.
- Seal off the contaminated area – this will stop or reduce any expansion of the contaminated population.
 - For large events, shut off HVAC systems (heating and air-conditioning) to minimize the spread of the mercury vapor.
 - For smaller events, open windows in the affected room to increase ventilation to the outside, and closing those in mercury free rooms.
- Stop Foot Traffic – mercury contamination is most commonly spread throughout the school on the shoes of the students (and teachers!). Once contaminated, students' shoes may track the mercury to other previously uncontaminated parts of the school, worsening the situation. A plastic sheet isle runner either through a clean area for the contaminated shoes to traverse, or over a contaminated walkway to prevent adding more shoes to spread the problem. Remember, shorter time and less contaminated material make exposure less dangerous (and the clean up cheaper).
- Remove Contaminated Clothing- Known contaminated clothing should be removed and replaced with clean clothing/shoes. Parents may need to be contacted to provide a change of clothes for students. Contaminated clothing can be double bagged and stored for emergency responders to provide further guidance.

- Contact local officials - including
 - State Environmental Response Spill Reporting Hotline at 1-800-928-2380
(Immediate notification to the State Environmental Response Spill Hotline is required for spill events).
 - 1) Local Health Department at (_____), for public health information.
 - 2) Local Emergency Management at (_____), for clean up management.
 - 3) Poison Control Center 1-800-222-1222 - for information on mercury toxicity you can give to parents and staff, for information on treatment, if any, that might be necessary.
 - State Emergency Management Office in Frankfort at (800) 255-2587
 - State Department for Public Health at 1-888-9 REPORT, or 973-7678 after-hours/weekends, or daytime, the Division of Public Health Protection and Safety at (502) 564-7398.

DON'T'S

- Do NOT attempt to vacuum mercury –Mercury evaporates, and the gas is toxic. Vacuuming mercury will volatilize the mercury and spread the fumes faster and farther. And will permanently contaminate the vacuum.
- Do NOT attempt to mop up mercury. This will spread the mercury to a wider location, making it more difficult to clean/remove later.
- Do NOT attempt to sweep up mercury – this may further break up and spread the mercury.

Although mercury is dangerous for many reasons, the primary risk from a mercury spill is from the fumes as the mercury evaporates (volatilizes). Mercury fumes are invisible, odorless, tasteless and are more dangerous in more enclosed spaces.

Prompt action and isolation of the mercury and persons who may have come in contact with it, may make the difference between low exposure and simply isolating a room and a few individuals, or widespread exposure and the need for you to possibly close the entire school.

There may be different levels of contamination that occurs, ranging from a broken thermometer or blood pressure cuff, to a larger volume of mercury potentially from school laboratories or brought in by a student. The recommendations above will apply in most events.

As with any type of emergency, you should take the following proactive steps:

1. Identify – What do you have; confirm
2. Isolate – Exposed site and exposed individuals
3. Treat – Emergency medical actions that can be taken
4. Communicate –
 - a. Internal Notification
 - b. Emergency Agency Notification
 - c. Your Leadership Team
 - d. Parent/Public Communications when/if appropriate
5. Mitigate –
 - a. What you can do while waiting for the responders
 - b. What they will do when they arrive

6. Recovery – Understand the process of getting the “all clear”, before students return to the site (for assistance identifying contractors operating in the state that perform clean up of spills, contact the State Environmental Response spill reporting hotline at 1-800-928-2380). The EPA, Department for Environmental Protection, Emergency Management and State and Local Health Department will advise regarding individual recovery processes.

Provided by a collaborative effort of the following agencies:

Kentucky Department for Public Health
Kentucky Department for Education
Kentucky Department for Environmental Protection
Kentucky Department for Military Affairs-Emergency Management
Kentucky Poison Control Center
Lincoln Trail District Health Department
Northern Kentucky District Health Department
Marshall County Health Department