

Cleaning up Small Liquid Mercury Spills

If the spill is more than the contents of a fever thermometer (1 mL), contact the New York State Department of Environmental Conservation Spills Hotline at 800-457-7362. Do not place mercury waste in the regular trash.

1. **EVACUATE THE SPILL AREA:** If people were in the room when the spill occurred, be sure that their shoes, clothing, and other articles have not been splashed with mercury before they leave the room. If mercury has contaminated any clothing or articles, remove these items from the person and place them in a plastic bag. Keep everyone else, especially children and pets, out of the spill area to prevent tracking.

2. **LOWER the TEMPERATURE** by turning down the thermostat. The cooler the temperature, the less mercury vapors will be released into the air. Mercury vapors are odorless and colorless.

3. **TURN OFF CENTRAL VENTILATING OR AIR CONDITIONING SYSTEMS** that could circulate air from the spill area to other parts of the home or building.

4. **CLOSE INTERIOR DOORS** leading to other rooms, but **VENTILATE THE ROOM WITH THE SPILL TO THE OUTDOORS** by opening windows and any exterior doors. Place fans, facing out, in open windows or doors to speed up ventilation.

5. **ASSEMBLE CLEAN-UP SUPPLIES:** The following items may be helpful for safely cleaning up a small mercury spill. Assemble as many of them as you have. Remember that if the item comes in contact with mercury during the clean-up, it will have to be disposed of as hazardous waste.

Latex or rubber gloves

Goggles

Two small pieces of stiff paper or cardboard (not corrugated) with at least one straight edge, such as index cards or playing cards

Damp paper towels

Wide mouth plastic container with a lid

Airtight, sealable plastic bags

Garbage bags

Flashlight

Eyedropper

Tape – masking, duct, regular office – types & brands work differently, try many

Tweezers

Sulfur or zinc powder - these may be purchased from garden supply stores

6. **DRESS APPROPRIATELY:** Remove all jewelry from hands and wrists so the mercury does not bond to the metals. Change into old clothes and shoes that can be safely discarded if they become contaminated. Put on rubber gloves and goggles, if you have them.

7. **CONTAIN THE SPILL:** Keep the mercury from spreading into cracks, crevices, floor drains or onto sloped or porous surfaces, which are difficult to clean. If necessary, use masking tape or duct tape to make a vertical "fence" around the mercury droplets and confine them to a limited area for clean-up.

If you cannot find the spilled mercury, consider the entire room contaminated and call for professional assistance.

Never use a household or industrial vacuum cleaner to clean up mercury! These devices, even with filters, are not adequately filtered to remove mercury. Also they

heat up and will spread mercury vapors. Once a vacuum has been contaminated with mercury, it will release mercury each time it is used; the only sure way to avoid spreading the contamination is to discard the vacuum cleaner.

Never use a broom on a mercury spill because it will contaminate the broom and only scatter the mercury droplets, making them harder to find and pick up.

Never pour mercury down the drain, or you will contaminate your plumbing, your septic system, or your local sewage treatment plant.

Never use household cleaning products because they may react violently with the mercury, releasing toxic gases.

8. PICK UP ALL VISIBLE MERCURY DROPLETS:

For cleaning mercury from smooth, hard surfaces:

If the mercury spill involves glass pieces, such as from a glass mercury thermometer or a glass ampoule from a mercury thermostat, use the tweezers to safely pick up any broken glass, placing the glass in the plastic container.

Use the 2 pieces of stiff paper to push the mercury beads together and then scoop them up. Place the beads in the plastic container. (Alternatively, you can use a rubber squeegee and dust pan to collect the mercury beads, but you must dispose of these contaminated items afterwards.) Use an eyedropper to pick up the beads you can't get with the cardboard. Hold the eyedropper almost parallel with the floor, or it will not work very well. Clear the eyedropper by gently squeezing the contents onto a damp paper towel. If you do not have an eyedropper, press the sticky side of the wide tape to the remaining beads. (Note: Tape only works on small beads of mercury, not large droplets.) When you think you've picked up all the mercury, shine a flashlight (at many different, low angles) on the area to find any remaining mercury beads or glass. Light will reflect off the mercury beads and glass helping you to locate them.

For cleaning mercury from a carpet, rug or fabric:

If the mercury spilled on a wall-to-wall carpet, call for assistance;

For small rugs and other pieces of fabric, fold or roll the surface so that the mercury contaminated area is trapped inside. Place the contaminated rug or fabric in a sealable, plastic bag. If a sealable bag is not available or feasible to use, double- or triple-wrap the contaminated fabric in plastic trash bags.

If the mercury spilled on a piece of fabric-covered furniture, call for assistance.

If the spill went down the drain:

Mercury may get caught in your sink trap. Working over a tray a bucket or piece of plastic, remove the trap. Ideally you should place the trap and its contents in a sealable plastic container and replace the trap. Put the container inside two plastic bags (one inside the other). Dispose of the old trap and its contents as hazardous mercury waste. (If you do not replace the trap, pour the contents of the trap into the sealable plastic container and dispose of it as hazardous mercury waste.)

If the spill was in a sink of water:

Remove as much of the water as possible without disturbing the mercury beads. Use a turkey baster or a small disposable cup. The water that is removed will not be contaminated as metallic mercury is not soluble in water. Recover the mercury beads with an eyedropper and place them in a non-breakable container. Once all the visible mercury has been recovered, drain the water to the sewer.

9. SPRINKLE "FLOWERS OF SULFUR" (ELEMENTAL SULFUR IN POWDER FORM) OR FINE POWDER ZINC, if available, ON THE SPILL SITE, if feasible, to bind any remaining mercury. These may be purchased from garden supply stores.

Apply over hard-to-reach areas, such as cracks and crevices, to bind the mercury and halt the release of mercury vapors. Afterwards, collect the powder with a moist paper towel and dispose of as mercury waste. Take care not to inhale sulfur powder and beware that it may permanently stain carpeting, clothing and furniture.

10. PLACE THE BROKEN PRODUCT AND ALL MATERIALS USED TO CLEAN UP THE MERCURY IN SEALABLE PLASTIC CONTAINERS OR AIRTIGHT, SEALABLE BAGS. This includes the cards, paper towels, eyedroppers, tweezers, and other equipment used to clean up the spill. Place the plastic containers or bags inside a second plastic container or bag to provide additional containment protection. Seal each bag or tighten each lid securely so that liquid and vapors will be contained.

AFTER YOU HAVE CLEANED UP THE SPILL:

1. CONTINUE VENTILATING the room or spill zone with outside air for a minimum of two days, if feasible. Fans to the outside will assist the ventilation. Now that the spill has been cleaned up, there is no longer a need to minimize vaporization by lowering the room temperature; warming the area during ventilation, if practical, will help dissipate any remaining mercury vapors more rapidly.

2. WASH HUMANS AND ANIMALS THAT CAME INTO CONTACT WITH MERCURY using soap and a paste of water and “flowers of sulfur,” if available. Afterwards, thoroughly rinse the area. Dispose of all clothing that may have come in contact with the mercury as mercury waste. NEVER PLACE MERCURYCONTAMINATED FABRICS IN A WASHING MACHINE or DRYER.

3. REPLACE THE BROKEN MERCURY DEVICE WITH A NON-MERCURY alternative.

4. Replace all remaining mercury devices in the home with non-mercury alternatives. The best way to protect yourself from mercury exposure is to prevent spills from occurring.

5. If you are uncertain about whether most of the spilled mercury was recovered and the room is frequented by small children or pregnant women, it may be wise to test for residual mercury in the air using a portable Jerome Meter or Lumex Mercury Analyzer. Some state environmental agencies have this capability.