

Safetygram

NCI-Frederick

ISM-183

Laboratory Personnel

January 2012

Mercury Spill Procedures

Mercury is the heavy, silvery-white liquid commonly used in mercury vapor lamps, thermometers, barometers and other scientific equipment. It occurs naturally in an ore known as cinnabar and the average person's daily diet contains about 20 micrograms of mercury.

When mercury is spilled, it breaks into tiny droplets that may scatter widely, getting into crevices in floors and counter tops. These droplets release toxic vapors even at room temperature and chronic mercury exposure can affect the neurological, renal, and reproductive systems. In addition, liquid mercury can be absorbed through intact skin. You should treat mercury spills very seriously. EHS urges that labs call Safety (x1451) rather than clean up mercury themselves.

1. If mercury contacts the skin, wash the skin with soap and water.
2. For mercury spills in a heated water bath or warming block, turn the equipment off and allow to cool to minimize vaporization.
3. Wear protective gloves, such as the latex gloves found in most laboratories. Cleanup should begin with collecting the droplets. Large droplets can be consolidated by using a scraper or piece of cardboard, and the pool of mercury can be removed with a hand-operated pump or other appropriate equipment.
4. **Never use a regular vacuum to cleanup mercury!**
5. Commercial cleanup sponges and kits are also available from many scientific and safety vendors.
6. The collected mercury should be placed in a capped plastic container, such as a centrifuge tube. To meet EPA regulations, mercury-contaminated cleanup and spill debris must be labeled and given to the Waste Management office; call x5718 to arrange for disposal.
7. Call EHS (x1451) for assistance or to clean the area thoroughly.
8. **Non-mercury thermometers** are available from the Warehouse (stock Number SPWH-66400049). If mercury thermometers must be used, EHS recommends using plastic coated versions, available from most scientific vendors. Large items that contain mercury, such as cell counters and manometers, should be stored and used in plastic trays that contain the mercury in the event of a release.

For further information on the hazards of mercury, or if assistance or equipment is needed for mercury spills, please contact Waste Management at x 5718 or EHS at x1451.