

What is Mercury?

Mercury is a naturally occurring toxic metallic element found in thousands of homes and schools. Historically, mercury has had many uses in the science classroom, from thermometers and other measuring instruments to elemental mercury, as well as mercury compounds used as teaching tools in chemistry lab experiments. The good news is that safer alternatives to mercury are now available.

Mercury is a concern for human health and for the environment. It does not degrade and is not destroyed by burning, which is why proper disposal and recycling are essential.

Mercury spills are a serious health concern. Because mercury vaporizes at room temperature, it presents an immediate health risk to anyone spending a significant amount of time in a room where mercury is spilled.

Mercury Exposure is a Health Concern

Mercury has many toxic effects in the body and is a known neurotoxin. When mercury vapor is inhaled, it enters the blood by way of capillaries in the lungs. Breathing mercury vapors over a long period can damage the brain, spinal cord, kidneys and liver.

Children and fetuses are at special risk.

Mercury Exposure in the Environment

Improper disposal of mercury can contaminate lakes, streams, and the air. Natural processes convert mercury in sediments into methylmercury, the most common organic mercury compound in the environment. Methylmercury bioaccumulates in fish, birds, and other wildlife, concentrating in animals that are high on the food chain. Eating contaminated animals can be harmful to humans.

Mercury Sources in Schools

Instruments containing mercury can be found in a variety of locations on school property – in the nurse's office, science rooms, gymnasiums, art rooms, and boiler rooms.

Sources of mercury in labs:

- Thermometers
- Chemicals

Other sources of mercury:

- Gymnasium and fluorescent lights
- Cafeteria equipment
- Regulators
- Lab Vacuums
- Gauges and Meters
 - Humidity - hygrometers
 - Pressure cuffs – sphygmomanometer
- HVAC systems
- Thermostats
- Plumbing systems
- Medical devices
- Gauges and Meters
 - Air speed - anemometers
 - Flow - water meters

Reducing Mercury Sources in Schools

The Mercury Thermometer Exchange program is free to all Tennessee schools.

Just contact the numbers on the back of this brochure, and a trained environmental specialist will come to your school to exchange a liquid-filled thermometer for your mercury thermometer. In addition to the thermometer swap, we can remove elemental mercury and other mercury compounds. We also provide advice and assistance with disposal of old science laboratory chemicals as part of the School Chemical Cleanout Campaign (SC3).



Mercury Spills

Never use a vacuum cleaner, mop or broom to clean up a mercury spill!!!

Heat from the vacuum's motor will increase the amount of mercury vapor in the air. Mops and brooms will spread the mercury, making proper cleanup more difficult and costly. The vacuum cleaner, mop or broom will become contaminated and require disposal as hazardous waste. If you do not know the cleanup protocols, do not attempt to clean up a mercury spill because you might spread the contamination.



School Chemical Cleanout Campaign (SC3)

The School Chemical Cleanout Campaign (SC3) focuses on proper disposal of outdated and unknown school lab chemicals from public and private schools. The primary goals are to remove potentially dangerous chemicals from schools, while educating teachers and students about proper chemical management, lab safety, greener teaching options, and chemical waste disposal.

SC3 is a three-year program, funded largely by the EPA. Two TDEC programs, the Green Schools Program and the Household Hazardous Waste Mobile Collection Service, are collaborating to provide SC3 with a safe and financially feasible way of removing school lab chemicals and mercury thermometers. The program includes on-site chemical management assistance, chemical segregation, and disposal cost assistance. The disposal costs to the selected schools are calculated on a sliding scale based on the economic index of their county.

Program Partners

SC3 program is a cooperative program with:

- The Tennessee Department of Environment and Conservation;
- Tennessee Department of Education;
- The US Environmental Protection Agency (EPA);
- Tennessee Organization of School Superintendents (TOSS); and
- Tennessee Science Teachers Association (TSTA).

Contact Numbers

Ken Nafe
Tennessee Department of Environment and Conservation
615-253-5449
ken.nafe@state.tn.us

Cynthia Rohrbach
Tennessee Department of Environment and Conservation
931-490-3929
cynthia.rohrbach@state.tn.us

Linda Jordan
Tennessee Department of Education
615-532-6258
linda.k.jordan@state.tn.us

Mercury Clean Up Information:

<http://health.state.tn.us/FactSheets/mercury.htm>



The Tennessee Department of Environment and Conservation is committed to principles of equal opportunity, equal access and affirmative action. Contact the EEO/AA Coordinator at 1-888-867-7455 or the ADA Coordinator at 1-866-253-5827 for further information. Hearing impaired callers may use the Tennessee Relay Service (1-800-848-0298).

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MERCURY-FREE
SCHOOL LAB**



**TENNESSEE MERCURY
THERMOMETER
EXCHANGE**

**Tennessee Department of
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