

New Ohio Law Bans Mercury in Consumer Products February 2007

An important step in the regulation of mercury-containing products has been achieved, thanks to the hard work of Ohio EPA. House Bill 443, initiated and authored by Ohio EPA, was signed into law on January 4, 2007. Over time, most thermometers, thermostats and novelty items sold in Ohio will be mercury free.

Surprisingly, prior to the bill's passage, Ohio was the only Great Lakes state without any type of state-mandated consumer product mercury ban. Until now, mercury reduction efforts have been voluntary, and some Ohio industries, retailers and communities were obliging.

Ohio EPA worked for well over a year to get the mercury provisions of HB 443 passed, along with a diverse array of other interested parties, including the Ohio Manufacturers Association, the Associated Builders and Contractors, Ohio Nurses Association, Ohio Environmental Council and several more. The legislation was initially sponsored by State Senator Bob Spada (R-North Royalton) and State Representative Jon Peterson (R-Delaware).



**Banning the use of mercury in consumer products will help
prevent accidental contamination of our schools and homes.**

Schools will not be permitted to buy mercury or mercury-added measuring devices for classroom use starting April 6, 2007. Six months later, Ohio will ban the sale and distribution of mercury-containing thermometers and novelty items. Beginning April 6, 2008, a ban on the sale and reinstallation of mercury-containing thermostats will go into effect.

As of April 2008, no manufacturer can offer a mercury-containing thermometer or thermostat for sale or distribution in Ohio. Exceptions for thermometers include a device required to comply with federal law, or required as the only feasible tool available for purposes specified in the law. Exceptions for thermostats include residences with a visually impaired person, or a manufacturing process where the device is used to sense and control temperature.

In addition, the law bans the sale or distribution of novelty items that contain mercury, like games, figurines, toys, yard statues, jewelry and many others. For now, the ban does not include items that contain only the mercury found in a button cell battery, but those will be added to the ban in 2011.

The Hazards of Mercury

Mercury accumulates in human, fish and wildlife tissue, and has many adverse health effects, mostly impacting the neurologic and renal systems. Effects from low doses of exposure include muscle tremors, irritability and immune system dysfunction. High exposure may cause vision, speech and hearing impairment; respiratory problems; and even death.



Children and fetuses are at the greatest risk because their nervous systems are still developing. Damage before birth or in infancy causes late development

of walking, talking and possible lifelong learning problems.

Consumption of contaminated fish is the leading cause of mercury poisoning. Many lakes and streams in neighboring states have fish consumption advisories; in Ohio, there is a statewide mercury advisory for all people (not just children and pregnant women), who are advised to eat no more than one fish meal per week from any Ohio water body.

I Know It's in My Thermometer, But Where Does it Come From?

Mercury is a naturally occurring and highly toxic heavy metal. It's a silvery liquid metal at room temperature, but when heated or exposed to air, it becomes an invisible and odorless vapor.

Mercury released into the environment cycles and drops into soil and waterways through precipitation. Bacterial and chemical reactions convert the mercury to an even more toxic substance called methylmercury. It is consumed by small plankton-eating fish, which are eaten by larger fish, and so on, up through the food chain.

That's why Ohio EPA's Web site often contains "Do not eat" fish advisories.

But where else does mercury come from? It's actually mined from ore — most notably, cinnabar — in several countries, primarily Spain, Algeria, Kyrgyzstan and China. This may be where that shimmery, slippery dollop in your thermometer came from, if it wasn't recycled from a previous use. But because of international awareness of its danger, global demand for mercury is now less than a third of 1980 levels.



Cinnabar is natural mercury sulfide ore.

U.S. EPA estimates that 263 tons of mercury are released into U.S. air each year, as a by-product of coal-burning utilities, incinerators, boilers and mining. It is also released into the environment naturally from erosion, forest fires and volcanic action. Once it is in the atmosphere, we can absorb mercury through our skin, inhale it or ingest it.

Mercury All Around You

Another common route of exposure is from accidental spills at home or school, when children handle the kid-appealing shiny droplets. Improperly disposing of household items containing mercury also contributes to mercury pollution. You'd be surprised how many items in your home contain mercury, such as:

- antiseptics (remember Mercurchrome and how you'd rather have had your finger cut off with a butter knife than endure its burning?);
- barometers;
- batteries;
- blood pressure gauges;
- dental amalgams (fillings);
- household switches;
- lamps;
- microwave ovens;
- novelty clothing (like those cool flashing soles in your kid's sneakers);
- paint;

- pesticides;
- thermometers;
- thermostats; and
- toys.

Mercury Vapor Video

Ohio EPA has developed a short video that uses special lighting to show mercury vapors, which are normally invisible, odorless and tasteless. The 8-minute video also addresses the safest ways to clean up a mercury spill. To find out more about the video or to get a free copy for your classroom, business or community, [e-mail Chris Cotton](#). To view a sample QuickTime clip of the 30-second or 60-second public service announcements based on information contained in the mercury video, click the appropriate link below. To download a free version of QuickTime, [click here](#).

Low-Speed Internet Connections	High-Speed Internet Connections
30-second Public Service Announcement	30-second Public Service Announcement
60-second Public Service Announcement	60-second Public Service Announcement

Additional Resources

- [New Law Bans Mercury Products in Ohio](#)
- [Mercury in the Household fact sheet](#)
- [Ohio Mercury Reduction](#)
- [Bill Narotski](#), OCAPP, (614) 644-3469

