

## What is mercury?

Mercury is a metal that is liquid at room temperature. It is very dense, yet has a high surface tension that causes it to form tiny perfect spheres in the pores of the rocks in which it is found. It does not degrade over time.

Hg

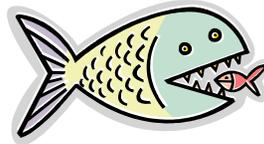


## Where is mercury found?

Mercury occurs naturally in the environment in relatively small amounts. However, due to its unique properties, mercury is mined from the earth and used in a variety of processes and products. In dentistry, for instance, mercury is used in fillings because of its strength and ability to accommodate to the temperatures of foods and liquids we eat or drink. Mercury is also used in products subjected to temperature fluctuations, including thermometers, switches, thermostats and fluorescent light bulbs or tubes. Lastly, miners used mercury (quicksilver) to recover gold from mines in western United States, including the **Sulfur Bank Mercury Mine** in Lake County.

## How are we exposed to mercury?

Mercury from a broken fluorescent lamp or a mercury thermometer slowly evaporates when exposed to the air that you may breathe. Mercury can also be released into the air when coal, wood, or oil are burned or when mercury-containing wastes are incinerated. The amount of mercury present in the air from these sources is generally low. However, mercury in the atmosphere can fall to the ground when it rains or snows, and land on the soil and lakes.



Once mercury enters water bodies, biological processes change the metallic mercury into methyl-mercury, which is very toxic and can accumulate in aquatic organisms. In the food chain, small fish consume microorganisms that take up the methyl-mercury. Larger fish eat the smaller fish and accumulate mercury in their tissue. The most likely route of exposure to humans is by eating mercury contaminated fish.



## Why is it dangerous?

Mercury can affect the human brain, spinal cord, kidneys and liver, reducing your ability to feel, see, taste and move. Symptoms include tingling sensations in the fingers and toes, a numb sensation around the mouth and tunnel vision. Long-term exposure can lead to personality changes, stupor and coma. Pregnant women and young children are the most susceptible to mercury poisoning. It can also affect the development of an unborn fetus, causing birth defects.

## What products may contain mercury?

### Lighting

- Fluorescent lamps
- Mercury vapor lamps
- High-pressure sodium lamps
- Metal halide lamps
- Neon lamps
- Strobe lights



**Batteries** - Old alkaline batteries (prior to 1998) and "Button" batteries

### Measuring Devices

- Thermometers
- Barometers
- Hydrometers
- Gas meters
- Pressure gauges
- Vacuum gauges
- Mercury switches
- Thermostats

**Novelty Items** - Some children's tennis shoes that light up



## Alternatives to Mercury Products

Mercury Thermometers	Digital thermometers or glass gallium-indium-tin (galinstan)
Thermostats (Non-Electric Models)	Electronic models
Button Batteries	Mercury-free button batteries (zinc air type)
Fluorescent Bulbs	Low-mercury fluorescent bulbs

**One mercury fever thermometer contains enough mercury to contaminate 9,000 cans of tuna fish.**



## What Should I Do If Something That Contains Mercury Breaks?

- Remove all people not involved with the clean up from the area, especially children. If it occurs indoors, ventilate the room well for at least 24 hours after clean up is completed. Wear rubber or latex gloves to prevent direct contact with skin.
- Do not use a vacuum. It will put mercury vapor into the air and increase exposure risks.
- Do not use a broom to pick up mercury. It will break the mercury into smaller droplets making it more difficult to pick up.
- Do not pour mercury down the drain.

### For a fluorescent lamps:

- Use pieces of cardboard to carefully push the broken glass into a pile, then pick up. Store clean-up debris in a heavy plastic bag inside a box or in a rigid plastic container that can be sealed.
- Place a label on the container indicating broken lamps are inside, so that the recycler can handle them appropriately. Do not mix glass debris with unbroken spent lamps when they are recycled.

### For thermometers, thermostats, or devices that contain larger quantities of mercury:

- Pick up any broken glass or sharp objects with care. Place them on a paper towel. Fold the paper towel and place it in a sealable plastic bag. Secure the bag and label it "broken glass".
- Gather the mercury beads with a piece of thin cardboard by pushing beads together with slow, sweeping motions. Use a flashlight to look for additional mercury beads in crevices.
- Use an eyedropper to collect the mercury beads. Slowly and carefully squeeze the mercury onto a damp paper towel. Place the paper towel inside a sealable plastic bag and secure it. Label the bag to identify its contents.
- Place all the materials used to do the clean up in a small trash bag. (This includes cardboard, gloves, and eyedropper.) Secure the trash bag and label it.
- Contact the Lake County Household Hazardous Waste Program **(707) 263-1980**.

## Dispose of Mercury Containing Products Responsibly

Lake County residents can bring their mercury containing wastes to Hazmobile events. The events are:

**Friday and Saturday  
9:00 am to 1:00 pm.**

For a Hazmobile events near you, please call: (707) 263-1980 or visit [www.co.lake.ca.us](http://www.co.lake.ca.us)

The following mercury containing items are accepted at Hazmobile events:

- All types of fluorescent bulbs, including low-mercury lamps, compact bulbs, and straight, circular, spiral and U-bent tubes.
- Mercury thermometers
- Thermostats
- Household batteries including button batteries and old alkaline batteries

For more information on:	
Lawn and Garden Care	University of California Cooperative Extension: (707) 263-6838
Spills or Septic Systems	Lake County Environmental Health: (707) 263-8929 or (707) 994-2257
Recycling and Hazardous Materials Disposal	Lake County Public Services: (707) 263-1980
General Stormwater Pollution Prevention Information	City of Lakeport (707) 263-5613
	City of Clearlake (707) 994-8201
	Lake County (707) 263-2341 or (707) 994-4828

The Lake County Clean Water Program (Program) is a consortium of local agencies that are required by the State Water Resources Control Board to implement, promote and enforce stormwater pollution prevention practices. The Program consists of three (3) public agencies: the County of Lake, City of Clearlake and City of Lakeport. The overarching goal of the Program is to reduce pollutants from entering the stormwater conveyance system and local water bodies.

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*How do I dispose of it properly?*



**LAKE COUNTY  
CLEAN WATER PROGRAM**

*County of Lake, City of Clearlake and  
City of Lakeport*