

What is mercury and why is it harmful?

Mercury is an element that occurs naturally in the air, soil, and water. It is found in many rocks, including coal and when coal is burned, mercury is released into the environment. Of all the mercury humans release into the air, coal-burning power plants are the largest single source, accounting for over 40 percent of total emissions. Mercury in the air eventually settles into water where it can transform into methyl mercury and build up in fish. The improper treatment and disposal of products or wastes containing mercury can release mercury into the environment as well. Though harmless in many forms, mercury can be poisonous when absorbed through the lungs, skin, or digestive system. To avoid contaminating our environment it is important to properly dispose of items that contain mercury.

Why do CFLs contain mercury?

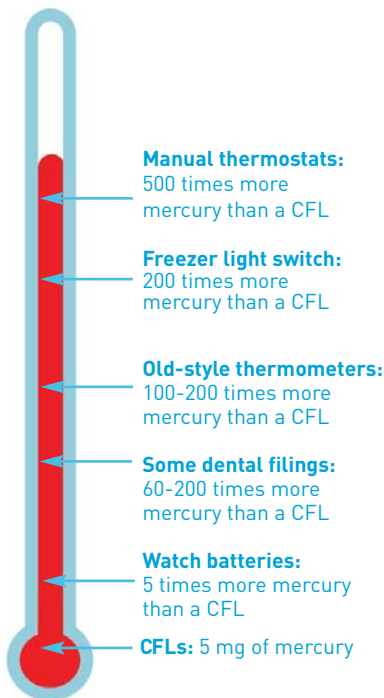
CFL technology requires mercury to provide light because of its excellent conductivity and high surface tension.¹ Mercury is the only metal that is liquid at room temperature, and it conducts energy well. For that reason, it is also used in products such as batteries and blood pressure cuffs.

How much mercury is in CFLs?

CFLs contain less mercury than many products we encounter every day, including the amalgam used to fill dental cavities and the button cell batteries in watches. CFLs are typically manufactured with recycled mercury, and no mercury is emitted when an ENERGY STAR qualified light bulb is in use.

While ENERGY STAR qualified light bulbs contain a small amount of mercury, their use creates a net reduction of mercury emissions to our environment, as compared to using incandescent lighting. Compact fluorescent lamp manufacturers continue to find ways to reduce the amount of mercury in the bulbs. Visit www.nema.org/gov/env_conscious_design/lamps/cfl-mercury.cfm.

Substituting CFLs for traditional incandescent light bulbs is one of the easiest things you can do to help reduce your energy use, save money on electricity bills, and protect the environment. Observing a few simple rules about handling and recycling CFLs helps keep mercury out of the environment and helps protect the members of your household.



Products that may contain mercury	
Products	Average Amount of Mercury ²
Most CFLs, including ENERGY STAR light bulbs	Less than 5 mg
Button cell batteries used in watches, hearing aids, some toys, and calculators	9 mg
Street lighting	30 mg
Dental amalgam	82 mg per filling ³
Fever thermometer	Up to 1,000 mg
Old-style residential thermostats	Up to 4,500 mg
Mercury blood pressure monitors	110,000 g
Mercury barometers	500,000 mg

Notes

1. <http://epa.gov/mercury>
2. www.capecodextension.org
3. Dental from MVS Solutions, Inc., www.mvssolutions.com

Compiled from public resources deemed reliable by the Consortium for Energy Efficiency. June 26, 2008.

