

Q: Do CFLs contain mercury? If so, why?

A: Mercury is an essential ingredient for most energy efficient lighting products, including CFLs. It is the mercury that excites phosphors in a CFL, causing them to glow and give light.

The amount of mercury in the most popular and widely used TCP CFLs is minimal, ranging between 1.5 mg and 3.5 mg. That is lower than other CFLs on the market, which generally contain approximately 5 mg, roughly the equivalent of the tip of a ballpoint pen.

By comparison, older home thermometers contain 500 milligrams of mercury and many manual thermostats contain up to 3000 milligrams. It would take between 100 and 600 CFLs to equal those amounts.

Mercury can be added to the CFL in two ways. Some manufacturers use liquid mercury, which is less expensive and more difficult to accurately dose.

TCP uses amalgam, a small "pill" which is a solid state form of mercury and other elements. Amalgam is much easier and more accurate to dose. TCP is the only manufacturer using 100 percent amalgam in its CFL products.

Q: Since CFLs contain mercury, how can they still be good for the environment?

A: CFLs are responsible for less mercury than standard incandescent light bulbs, and actually work to prevent mercury from entering our air, where it most affects our health.

The highest source of mercury in our air comes from burning fossil fuels such as coal, the most common fuel used in the U.S. to produce electricity.

A CFL uses 75% less energy than an incandescent light bulb and lasts up to 13 times longer. A power plant will emit 10 mg of mercury to produce the electricity to run an incandescent bulb compared to only 2.4 mg of mercury to run a CFL for the same time.

Q: Should I be concerned about using CFLs in my home?

A: CFLs are safe to use in your home. No mercury is released when the bulbs are in use and they pose no danger to you or your family when used properly.

Q: How do I safely dispose of a CFL when it burns out?

A: It is best to recycle your CFL. Recycling programs exist for mercury in older non-digital thermostats and mercury thermometers, but residential CFL recycling programs are just now appearing. To find a residential recycling program in your area, visit earth911.org or lamprecycle.org. You can also call 1-800-CLEAN-UP.

If recycling is not an option in your area, place the CFL in a sealed plastic bag and dispose the same way you would batteries, oil-based paint and motor oil at your local Household Hazardous Waste (HHW) Collection Site.

If your local HHW Collection Site cannot accept CFLs, seal the CFL in a plastic bag and place with your regular trash.

Q: What should I do if I break a CFL?

If a CFL breaks- carefully sweep up all the fragments, wipe the area with a wet towel, and dispose of all fragments, including the used towel, in a sealed plastic bag. Follow all disposal instructions. If possible, open windows to allow the room to ventilate. Do NOT use a vacuum. Place all fragments in a sealed plastic bag and follow disposal instructions.

Q: What steps are being taken to reduce the amount of mercury in a CFL?

The mercury used in all TCP CFLs is the lowest dosage possible to maintain proper lamp function; however, we are committed to reducing mercury content whenever possible and as part of that call to action have joined the NEMA voluntary commitment program. All participating manufacturers have promised to cap the total mercury content of all CFLs under 25 watts at 5 mg. CFLs that use 25 – 40 watts are capped at 6 mg per unit.

Q: What is mercury, what are the sources of mercury emissions, and what are the risks?

Mercury is an element found naturally in the environment. Mercury emissions in the air can come from both natural and man-made sources. Utility power plants (mainly coal-fired) are the primary man-made source, as mercury that naturally exists in coal is released into the air when coal is burned to make electricity.

Coal-fired power generation accounts for roughly 40% of the mercury emissions in the U.S.. The EPA is implementing policies to reduce airborne mercury emissions. Under regulations issued in 2005, coal-fired power plants will need to reduce their emissions by 70 percent by 2018.

Airborne mercury poses a very low risk of exposure. However, when mercury emissions deposit into lakes and oceans, they can transform into a highly toxic form that builds up in fish. Fish consumption is the most common pathway for human exposure to mercury. Pregnant women and young children are most vulnerable to the effects of this type of mercury exposure. However, The Food and Drug Administration (FDA) estimates that most people are not exposed to harmful levels of mercury through fish consumption.