

# Light Bulbs – A Hazardous Waste

## Did you know that all light bulbs are a hazardous waste?

Most bulbs, unless specifically stated otherwise on the packaging, contain toxic heavy metals and other corrosive substances which would classify them as hazardous waste. In 1999 EPA established the Universal Waste Rule (UWR) to eliminate many regulatory requirements, to prevent disposing into landfills and to promote proper recycling. Under the UWR light bulbs would not be classified as hazardous waste. By following the UWR you will reduce the financial & regulatory burdens and help protect the environment. Below are the most common types of bulbs:

### Fluorescent and other mercury containing bulbs.

This group includes, among others, fluorescent tubes and compact fluorescent lamps (CFLs). Other more uncommon types of bulbs and lamps – like sodium-vapor lamps and high intensity discharge lamps – also belong in this group.

They all contain mercury – some contain just traces of it, others contain pure mercury vapor. None of them should ever be just thrown into the garbage.

These bulbs are the topic of the most concern because of the properties of mercury and the possible direct effect of poisoning. Mercury vaporizes at normal room temperature, and is therefore easily spread to our body through inhalation and less commonly through absorption.

Mercury vapor is highly dangerous to breathe in, and can cause major damage to the lungs and the nervous system. Mercury will also damage internal organs and may also cause mental illness.

Mercury accumulates in plants and animals – including humans. Once absorbed it is processed by the liver, where it can accumulate with multiple exposure and cause damage.

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If you happen to break a bulb or tube containing mercury, a vapor or dust will be released. If this happens, you should aerate the room with plenty of fresh air, open windows, leave the house and allow it to dissipate.

#### **Incandescent bulbs**

Incandescent bulbs contain lead levels exceeding hazardous waste limits. If they're thrown away in the regular garbage, this lead will sooner or later find its way into nature.

Lead is acutely and chronically poisonous to aquatic organisms and mammals. Even in small concentrations, lead poisoning may cause neurotoxin and immune problems. Lead can also cause fetal damage in humans and reduce fertility.

Lead accumulates in fish and mammals over time, and is only released at a very slow rate. Humans are mainly exposed to lead through food and inhalation of vapor and dust.

#### **LED** bulbs

LED bulbs are relatively clean compared to other light sources, but recent TCLP studies, which test the likelihood that a metal will leach out of a municipal landfill, suggest that the lead levels are too high to be managed as a municipal waste. The accumulation of lead is in fact very similar to incandescent bulbs.

## Where to recycle bulbs and lamps

Most counties have a household hazardous waste drop off area for consumers. If you can not find a local drop off, there are several retailers who will recycle small quantities of household hazardous consumer waste. Midwest Environmental Services, Inc. is a fully licensed Treatment, Storage, and Disposal Facility that can manage your household hazardous wastes and universal waste including unbroken & broken light bulbs and electronic waste. For more information please contact Midwest Environmental Services at 812-358-5160, 513-681-9990, or email at info@midwestenvironmentalservices.com.