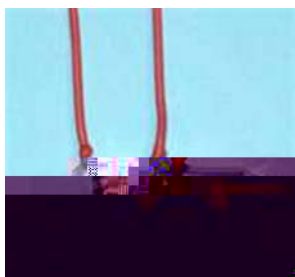


## Mercury Containing Devices/Products

Mercury is used in a wide variety of devices and products. These items release mercury into the environment when broken or improperly disposed. If spilled, mercury absorbs into many materials while slowly evaporating into the air over time, allowing for exposure. Knowing what products and items contain mercury and handling them properly will limit the risk of mercury exposure. Common products often have a simple and environmentally friendly alternative.



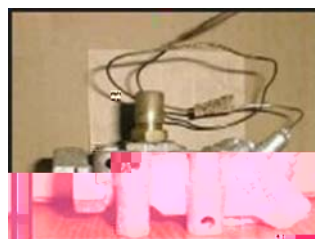
**Thermometers** - Mercury is used in thermometers because it expands and contracts evenly with temperature changes. Alternatives include the electronic (digital) or red alcohol thermometers.



**Switches** - Shown is the simplest tilt type of mercury switch which conducts electricity and is used in many applications including light switches (silent type), top-loading freezers and washing machines. Some clothing irons have an automatic shut-off switch containing mercury. Irons with mercury-free automatic shut-off switches are available



**Thermostats** - Mercury in these devices act as switches to energize heating and cooling systems. Electronic versions are available.



**Appliances** - Mercury vapor bulbs were used in older microwave ovens. However, new models do not contain mercury.

**Thermostat Probes** - Thermostat probes or flame sensors consist of a bulb attached to a gas-control valve by a tube containing mercury. They are generally used to prevent gas from flowing when the pilot light of the appliance is off.



**Vehicles** - Mercury switches are also found in vehicles to turn on lights when a trunk or engine hood is opened, for example. Mechanical and electronic switches are available in mercury-free versions.





## Batteries

Before 1980, most batteries used in homes contained mercury. Current mercury containing batteries are "button" shaped and are used in hearing aids, watches and other

### Medical products - Dental amalgam restorative materials (fillings)

Dental amalgam is the end result of mixing approximately equal parts of elemental liquid mercury (43 to 54 percent) and an alloy powder (57 to 46 percent) composed of silver, tin, copper, and sometimes smaller amounts of zinc, palladium or indium. Besides dental amalgam, there are many other restorative materials that are used in dentistry. Advances in technology have resulted in improvements that have expanded the use of these alternatives.

**Medical products** - Mercury may be present in fixatives, stains and chemicals that biomedical laboratories stock.

The following compounds used in biomedical laboratories contain mercury:

- B-5 (mercuric chloride)
- Helly's (mercuric salts)
- Zenkers (mercuric salts)
- Mercuric bichloride/acetic acid
- Mercuric chloride
- Mercuric oxide
- Mercuric bromide
- Hematoxylin Stain (Harris)
- Thimerosal
- Mercurochrome (merbromin)

There are alternatives to these uses of mercury products.

**Pharmaceuticals** - Thimerosal (about 48% mercury) has been used in antiseptic creams and as preservatives in pharmaceutical solutions including contact lens solutions. While most antiseptics ar

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