Mercury Containing Devices/Products -2026

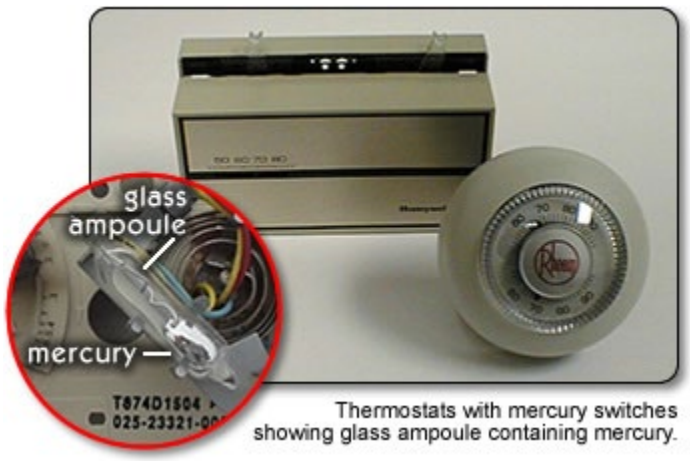
Mercury is used in a wide variety of devices and products. These items release mercury into the environment when broken or improperly disposed. If spilled, mercury absorbs into many materials while slowly evaporating into the air over time, allowing for exposure. Knowing what products and items contain 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 with mercury switches showing glass ampoule containing mercury.

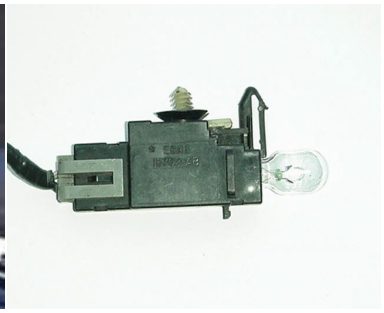
Thermostats - Mercury in these devices act as switches to energize heating and cooling systems. Electronic versions are available.

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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.

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

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.

Luminaries (lights) - Fluorescent, HID (High intensity discharge) lamps such as Mercury Vapor, High Pressure Sodium and Metal Halide, and Neon all contain mercury in a metallic as well as vapor form. Mercury is released when bulbs are broken or incinerated. Alternatives to older model fluorescent lamps are labeled as low-mercury lamps and often can be recognized by their green end caps or green lettering. Low-mercury lamps contain less mercury which is also released when improperly managed.



Fluorescent lamps.



Metal Halide.

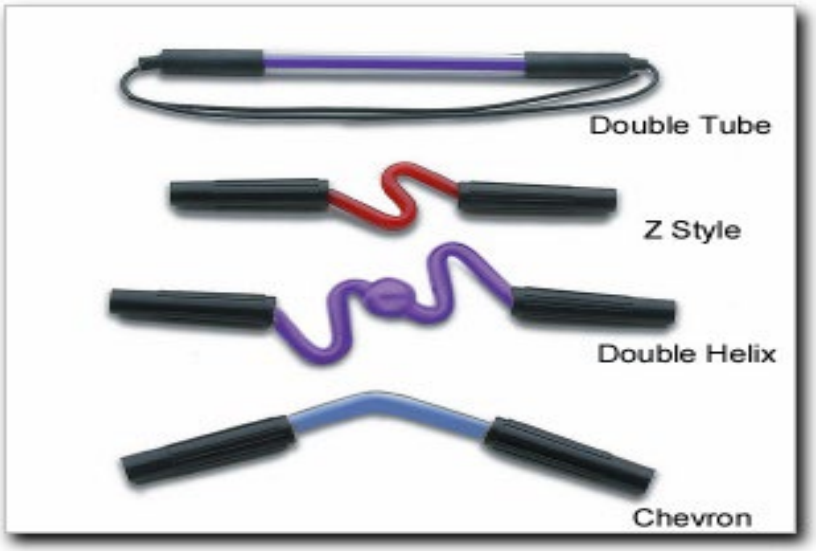


Mercury vapor lamps.



High pressure sodium.

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Neon lamps.



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 items requiring a small battery. In the last decade, the United States battery industry achieved a 99 percent reduction in mercury by using alternative materials. Silver oxide, zinc-air and alkaline batteries are the best alternatives for replacing batteries produced before 1994.

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Paints - Latex paint produced before 1992 had large amounts of mercury to prevent fungus growth. Mercury vapors were released when paint was applied. Use latex paint manufactured after 1992.

Toys - Children's chemistry sets were once sold with liquid mercury. Some toys contain a drop of mercury that is moved through a maze, called a mercury maze. Check chemistry sets and toys to be sure they are mercury free.





Shoes - Some shoes with flashing lights in the soles, historically, contained mercury switches.

Pesticides - Fungicides and biocides produced before 1994 used mercury to kill fungus, weeds and other pests. Most new pesticides are mercury-free.



Medical products - Sphygmomanometers (blood pressure gauge) contain almost 1.5 pounds of mercury. An aneroid blood pressure unit is a mercury-free option.



Medical products - Esophageal dilators.

How about those dilators? There is the tapered tip and the blunt tip model. The dilator is two tubes in one. The space between the outer and inner tubes houses the medium, typically mercury. Mercury perfectly fills the need for a heavy, flow able substance capable of dilating the esophagus of a patient in response to medical conditions or

treatments that cause esophageal narrowing or tissue shrinkage. Problems encountered include mercury containment and latex sensitivity. Like all mercury, it is recyclable. Alternatives exist such as powdered tungsten-filled dilators.



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)
Thimerosol

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Mercurochrome (merbromin)

There are alternatives to these uses of mercury products. Contact the suppliers.

Pharmaceuticals - Thimerosal (about 48% mercury) has been used in antiseptic creams and as preservatives in pharmaceutical solutions including contact lens solutions. While most antiseptics are now free of Thimerosal, it can be present in older medications and creams. Mercurochrome is a skin antiseptic used to treat cuts and abrasions. It is not commonly used. Mercury-free alternatives include Neosporin and Mycin. Talk to your pharmacist about alternatives.

The following are synonyms and trade names for Thimerosal

Aeroaid	Nosemack
Curativ	Sodium ethylmercurithiosalicylate
Ethyl (2-mercaptobenzoato-S) mercury sodium salt	Mercurothiolate
[(o-carboxyphenyl)thio] Ethylmercury sodium salt	Mertorgan
o-(Ethylmercurithio)benzoic acid sodium salt	Merfamin
Elcide 75	Septicol
Elicide	SET
Estivin	Sodium ethylmercuric thiosalicylate
Ethylmercurithiosalicyclic acid, sodium salt	Sodium ethylmercurithiosalicylate
Ethylmercurithiosalicylate sodium	Sodium merthiolate
Ethylmercurithiosalicylate sodium salt	Sodium o-(ethylmercurithio)benzoate
Mercurothiolate	Sodium salt of 2-(carboxyphenyl)thioethylmercury
Mercurate(1-), {ethyl[o-mercaptobenzoato(2-)]-,} sodium	Sodium 2-(ethylmercurithio)benzoate
Mercurate(1-), {ethyl[2-mercaptobenzoato(2-)-O,S]-,} sodium	Thimerosal
Mercurochrome®	Thimerosal solution
Mercural	Thimerosalate
Mercury, ethyl(hydrogen o-mercaptobenzoato)-, sodium salt	Thimerosol
Mercury, ethyl(2-mercaptobenzoato-S)- sodium salt	Thimerosol solution
Mercury {[(ocarboxyphenyl)thio]ethyl}-sodium salt	Thimersalate
Merphol	Thiomerosal
Merseptyl (VAN)	Thiomersalat
Merthiolate®	Thiomersalate
Merthiolate salt	Thiomersalate
Merthiolate sodium	Thiomersal
Merzonin sodium	Thiomersalan
Merzonin, sodium salt	Vitasepto

The US Food and Drug Administration offer a list of Mercury In Drug And Biologic Products.

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Instruments - **Barometers** are instruments used to measure pressure in the atmosphere; most of the older devices contain liquid mercury. A Bourdon tube gauge is an alternative to mercury-containing barometers. If you are unsure if your barometer contains mercury, a silvery substance in the tube is likely mercury.



Instruments - **Hygrometers** measure the moisture content in air. A psychrometer is the most common type of hygrometer. Psychrometers are best described as dual thermometers, one with a wet base and the other with a dry base. Hygrometers look like industrial thermometers with the distinct attachment of a cotton bulb. Sling psychrometers are designed to be twirled in the air to measure ambient moisture. Hygrometers/ psychrometers are found in workplaces where ambient moisture measurements are used for predicting weather and atmospheric conditions.

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Instruments - **Hydrometers** measure the specific gravity and density of a liquid. They are most commonly used in laboratories, the petroleum and dairy industries and in the production of alcohol.

Instruments - **Mercury is used as a vibration dampener in electron microscopy** because of its unique properties as a liquid metal at room temperature.

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