

Safe Alternatives to Products That Contain Mercury

One of the best ways to prevent mercury poisoning in your school is to replace products that contain mercury with safer alternatives. Find out how to make the switch to safer products today.

Always Buy Safe Products for Your School

- Make sure newly purchased products are mercury-free.
- Share this list of safe alternatives with anyone who buys products for your school.
- If you must buy products that contain mercury, only buy what you need to get through the school year (or the shelf life of the product).
- Don't allow staff to bring in their own products to school. Be cautious when accepting donations — people might not know that some products contain mercury.

Science Rooms and Labs, Home Economics, and Art Classrooms	
Items that may contain mercury	Mercury-free alternative(s)
Barometers	Aneroid, digital, or liquid barometers
Elemental mercury	None, use only when needed *
Hydrometers	Lead ballast hydrometers
Hygrometers	Spirit-filled glass bulb or digital hygrometers
Inorganic Mercury Compounds:	
• Mercury chloride	Magnesium chloride/sulfuric acid or zinc
• Mercury iodine	Formalin
• Mercury nitrate	Ammonia/copper sulfate
• Mercury oxide	Phenate method
• Mercury sulfate	- Ammonia/copper sulfate - Copper catalyst silver - Nitrate/potassium/chromium sulfate
• Millon's solution	None, use only when needed *
• Nessler's reagent	None, use only when needed *
• Zenker's solution	Zinc formalin
Mercury molecular motion device	Molecular motion simulator that uses balls on a glass plate
Mercury spectral tubes	16 alternative gases are available (contact your science supplies distributor for more information)
Sling psychrometers	Mineral spirits glass bulb thermometers (can sometimes fit in old psychrometer frame) or digital sling psychrometers
Thermometers	Alcohol and mineral spirits glass bulb thermometers or digital thermometers
Vacuum gauges	Needle or digital gauges
Vermilion paint	Mercury-free paint

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School Nurse's Office and Medical Supply Storage

Items that may contain mercury	Mercury-free alternative(s)
Blood pressure meters	Digital or aneroid devices
Thermometers	Digital, gallium-indium-tin thermometers, dot matrix thermometers, or alcohol thermometers

Electrical and Heating Equipment, Lighting, and Facility Supply Storage Areas

Items that may contain mercury	Mercury-free alternative(s)
Float control switches	Magnetic dry reed switches, optic sensors, and mechanical switches
Flow meters with mercury switches	Digital, optical, and ball-actuated flow meters
Fluorescent, vapor, metal halide, and high-pressure sodium lamps	None (recycle old bulbs safely)
Fluorescent light bulbs	None (recycle old bulbs safely)
Fungicides and pesticides	New fungicides and pesticides don't contain mercury (get rid of old fungicides and pesticides safely). Products made before 1994 may contain mercury — check the label!
Latex or marine paint and floor varnishes	New paint and varnishes don't contain mercury (get rid of old paint and varnishes safely). Products made before 1992 may contain mercury — check the label!
Mercury gauges	Electronic or aneroid gauges
Mercury oxide or mercury zinc batteries	Zinc-air or silver oxide batteries
Older model microwave ovens	New microwave ovens don't contain mercury vapor bulbs (follow local procedures for recycling mercury vapor bulbs)
Other equipment with mercury switches (e.g., flame sensors, fire alarms, safety valves)	Non-mercury thermocouples, electronic ignition systems, fire alarms with a snap-action, or push-button switch
"Silent" light switches	New light switches don't contain mercury (get rid of old light switches safely)
Thermometers in freezers and refrigerators	Digital or other mercury-free thermometers
Thermostats	Air-controlled, reed switch, vapor-filled diaphragm, snap-switch, or programmable digital thermostats

Notes: _____

***You don't have to use mercury in science class.**

You can use other materials in place of mercury during some experiments. If you must use mercury in class, try making the experiment smaller so that you use less mercury — and make sure there's a spill kit in the room.