



Environmental Fact Sheet

Vermont Department of Environmental Conservation
103 South Main Street
Waterbury, VT 05671

<http://www.anr.state.vt.us/dec/dec.htm>

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Waste Mercury-Added Devices: Handling and Disposal Guidelines

Thermometers, Silent Switches and Temperature Probes

In addition to thermometers, mercury has been used for many years in electrical products. A moving drop of mercury is used to open or close electrical circuits in devices like thermostats, silent wall switches, sump pumps, and the tilt switches in automobiles, chest freezers, washing machines, and space heaters. Mercury is a naturally occurring heavy metal which at room temperature takes the form of a silvery liquid. When a mercury-containing device is broken or thrown in the trash, mercury is released to the environment. Even a small amount of mercury can damage our lakes and streams and poison fish and wildlife. It is because of mercury's toxicity that restrictions (limits) have been placed on how and where mercury-added products are disposed.



Recognizing a Mercury-Added Device Is Not Always Easy

Although it is easy to see the silvery mercury in the bulb of a thermometer or the glass tilt switch of a home thermostat, most mercury containing devices enclose their mercury-added switches inside rubber, plastic or metal coverings. Also, not all electrical switches and temperature probes use mercury to function. Your Town Clerk, Town Manager, Solid Waste District (listed on the back of this sheet) and the Agency of Natural Resources has more information about which products have mercury in them and about the recycling programs for mercury-added devices in your area. (Also, see our Environmental Fact Sheet on Waste Mercury-Containing Lamps)

Vermont Law Requires...

- ☞ Proper labeling of mercury-added products.
- ☞ Towns and Solid Waste Districts to offer programs to collect mercury-added consumer products and to inform the public about them.
- ☞ Proper disposal, **NOT IN THE TRASH!**

General Recycling Guidelines

- ☞ Do not break, crush or take apart a mercury-added switch or device because mercury will be released.
- ☞ To avoid breaking the devices, package them carefully in individually sealed plastic bags placed inside larger sealable containers before storing or transporting them.
- ☞ Contact your Town Clerk, local Solid Waste District (listed on the back of this sheet) or the Agency of Natural Resources for information about recycling programs for mercury-added devices in your area.
- ☞ Contact local heating and air conditioning contractors or wholesalers about free thermostat take-back available through the Thermostat Recycling Corporation.
- ☞ If a mercury-added device is accidentally broken, use the following clean-up procedure.

Mercury Spill Cleanup Procedure

DO NOT SWEEP OR VACUUM MERCURY!

- 1 Keep all people and pets away from the breakage area so that mercury is not tracked elsewhere.
- 2 Keep the area well ventilated by opening windows and shutting off the heat or air conditioning.
- 3 Collect the necessary supplies before cleaning up: latex gloves, stiff paper or cards, paper towels or tissues, wide masking or duct tape, a leak-tight plastic bag or sealable container, a small plastic scoop or eye dropper.
- 4 Wearing the gloves, carefully pick up any broken glass or pieces of the device. Place on a paper towel or tissue. Wrap or fold the paper towel and place it in a leak-tight plastic bag or sealable container.
- 5 Working from the edge of the spill towards the center, use a card or stiff paper to push small beads of mercury into larger droplets. Push the droplets into a plastic scoop or pick them up with an eye dropper. Place the mercury in a leak-tight plastic bag or sealable container.
- 6 Use the sticky side of masking or duct tape to pick up remaining bits of glass or mercury beads. Put the tape, debris, gloves and cleanup equipment in a leak-tight plastic bag or sealable container.
- 7 Contact your Town Clerk, Solid Waste District or the Agency of Natural Resources about how to dispose of mercury spill cleanup materials.

Mercury-Added Device Management Q & A for Businesses and Municipalities

How should I handle mercury-added devices?

Mercury-added switches and devices are often removable components found inside much larger appliances. Once the switch or component has been removed from the larger product, the component should not be disassembled further. If need be, it should be stored in an individually sealed plastic bag placed inside a larger sealable container to avoid breakage. Direct exposure to mercury metal may pose health and environmental risks when mercury vapors are released.

Is every waste mercury-added product a hazardous waste?

When taken by itself, a mercury-added switch would exhibit the hazardous waste characteristic of toxicity for mercury. However, the hazardous waste regulations which apply to the proper handling and disposal of a mercury-added component do not automatically extend to the larger products containing them. For example, a mercury-added hood or trunk light switch does not turn the whole car into a hazardous waste.

May waste mercury-added products or devices be handled as something other than a hazardous waste?

Yes. Both Vermont and federal hazardous waste regulations already contain provisions to simplify the handling and recycling of waste mercury-added thermostats and lamps. These are called "Universal Wastes". Under current Vermont Waste Management Division policy, the terms of these provisions have been extended to all fabricated mercury-added products, switches, and devices that are not presently listed as so-called "Universal Wastes".

What if a mercury-added device breaks?

At a minimum, the device, the released mercury and cleanup debris should be sealed in a plastic bag and transferred to a closed compatible container labeled "Hazardous Waste" (with a description of the contents) and managed as a hazardous waste.

What should we tell workers who handle waste mercury-added products?

All employees who handle or manage mercury-added products should be informed of the proper handling and emergency procedures for these products and for mercury.

What are the disposal options for mercury-added devices?

- 1 Recycling through a Municipal or Solid Waste District's Household Hazardous Waste collection program.
- 2 Thermostats only Recycling by heating, ventilation and air conditioning wholesalers participating in the free thermostat take-back sponsored by the Thermostat Recycling Corporation.
- 3 Direct shipment as "Universal Waste" to a mercury recycling facility.
- 4 Shipment through a hazardous waste transporter to a proper destination facility.

Where can I get additional information?

- ☞ Contact your Town Clerk or Town Manager (if not in a Solid Waste District)
- ☞ Contact your Solid Waste District (see list to the right or the Agency web site below)
- ☞ Contact the Vermont Agency of Natural Resources:
 - Waste Management Division (802) 241-3888 (Hazardous/Universal Wastes)
 - Environmental Assistance Division (802) 241-3589 (Mercury-Added Products) or, on the web at: www.anr.state.vt.us/dec/waste.htm or www.mercvt.org
- ☞ Also, see our "Waste Mercury Containing Lamps" and "Universal Waste" Fact Sheets
- ☞ Review the Vermont Hazardous Waste Management Regulations in Subchapter 9: Universal Waste Management Standards. (also available on the Agency of Natural Resources website above)

Vermont Solid Waste Districts

ADDISON COUNTY
SOLID WASTE DISTRICT
(802) 388-2333

BENNINGTON REGIONAL
PLANNING COMMISSION
(802) 375-2576

CENTRAL VERMONT
SOLID WASTE DISTRICT
1-800-730-9475 OR (802) 229-9383

CHITTENDEN
SOLID WASTE DISTRICT
(802) 872-8111

GREATER UPPER VALLEY
SOLID WASTE DISTRICT
(802) 296-3688

LAMOILLE REGIONAL
SOLID WASTE DISTRICT
(802) 888-7317

MAD RIVER
SOLID WASTE ALLIANCE
(802) 244-7373

NORTHEAST KINGDOM
WASTE MANAGEMENT DISTRICT
1-800-734-4602 OR (802) 626-3532

NORTHWEST VERMONT
SOLID WASTE DISTRICT
(802) 524-5986

SOUTHERN WINDSOR/
WINDHAM COUNTY
SOLID WASTE MGMT DISTRICT
(603) 543-1201 OR (802) 885-5827

RUTLAND COUNTY
SOLID WASTE DISTRICT
(802) 775-7209 OR 802-773-4083

RUTLAND NON-DISTRICT
TOWNS JMISC/SWAC
(802) 235-2710

WHITE RIVER
ALLIANCE
(802) 234-9340

WINDHAM SOLID
WASTE DISTRICT
(802) 257-0272

For more information contact: Environmental Assistance Division tele: 802-241-3589 fax: 802-241-3273 e-mail: ead@dec.anr.state.vt.us www.anr.state.vt.us/dec/ead/eadhome.htm