

Managing Mercury Switches Information for Vehicle Dismantlers and Crushers

Background

Mercury, a highly toxic metal, is often found in hood or trunk light switches on cars. The mercury in vehicle switches can be released into the environment during the crushing or shredding of vehicles or when the scrap metal from the vehicle is recycled by steel mills. Although the amount of mercury used in each switch is small (approximately 1 gram), the potential amount of mercury released into Oregon's environment annually can amount to hundreds of pounds from vehicle recycling.

Removal and proper management of mercury switches in vehicles destined for salvage is an important part of keeping mercury out of the environment. The 2001 Oregon Legislature passed House Bill 3007, which prohibits crushing automobiles without first attempting to remove mercury light switches that are mounted on the hood or trunks of vehicles.

Which vehicles contain mercury switches?

It is safest to assume that all convenience switches contain mercury. U.S. automakers have not disclosed their historic use of mercury in pre-2000 model year vehicles. European manufacturers phased out mercury convenience switches beginning in 1993. Other foreign manufacturers have followed the European lead.

When should mercury switches be removed?

Mercury switches must be removed before the vehicle is crushed. Removal of the hood and trunk lighting fixture takes only a few seconds and can be done at the same time as the removal of fluids (oil, brake fluid, antifreeze), refrigerants, batteries, tires and non-deployed air bags.

Where are mercury switches located on cars?

Mercury light switches are often found on the car's hood and/or trunk. The actual mercury switch is the small, bullet-shaped metal or glass capsule that forms the base of the light socket and is visible once the bulb is removed.

Sometimes the mercury switch will be found not at the light fixture, but further along the wire that runs toward the bottom of the hood or trunk.



Mercury switch for vehicle convenience light.

How are the switches removed?

- Cut the power supply wire attached to the base of the light fixture.
- Remove any fasteners in order to separate the entire fixture from the vehicle.
- Place the entire fixture in a heavy plastic bucket with a lid or similar container for temporary storage.

When in doubt, assume that the light fixture contains a mercury switch.

Removing the mercury-containing capsule from the light fixture will save on storage space and may also save on disposal costs because recyclers may charge by weight. However, additional safety measures are essential to prevent breakage of the mercury capsules.

Additional information for switch removal can be found at www.epa.gov/mercury/switch.htm.

After removal, how should the switches be stored?

Mercury switches, capsules, and lighting fixtures should be collected in well-sealed, leak-proof, heavy plastic containers in an area where there is little risk of fire or breakage.

Do not use tin or aluminum containers because mercury may combine with these metals and may leak through seams. Do not dispose of mercury-containing switches with regular solid waste.

Mark the container with the words "*Universal Waste: Mercury-Containing Switches.*"

Switches may be stored on-site for up to one year before shipping to a recycling facility.



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For additional information on the management of mercury auto switches, please refer to DEQ's interim policy on the management of automotive switches as universal waste at www.deq.state.or.us/lq/pubs/docs/hw/Policy/2002-PO-002.pdf.

Where do I recycle or dispose of mercury switches?

Collected mercury switches must be sent to one of the following facilities for proper management:

- Hazardous waste collection facility
- Universal waste collection facility
- Mercury recycling facility

Containers holding more than one pound of mercury (~450 of the switches) are subject to additional transportation regulations.

Switch management services

- Mercury Refining Company, Inc.
Latham, NY (800) 833-3505
- Mercury Waste Solutions
Union Grove, WI (262) 878.2599
- Bethlehem Resources
Hellertown, PA (610) 838-7034
- MTI
Allentown, PA (800) 554-2372

Regional collection facilities

- Portland Metro (503) 234-3000
- Lane County Waste Management Division
(541) 682-4120

Some mobile car crusher operators may also offer to transport your switches to a collection facility. If your crusher operator offers to transport your switches to a collection facility, be sure you understand where and how the switches will be managed, and request a receipt for the switches that are transported.

What should I do if I break a mercury switch or capsule?

Mercury is a hazardous substance that is harmful if inhaled, ingested, or handled. Precautions should be taken when handling this potentially dangerous material. All mercury spills should be cleaned up immediately and properly disposed. Here are some simple guidelines which should be followed after a mercury spill occurs.

1. Small mercury spills on nonporous surfaces can be cleaned up by wiping up the mercury and sealing the cloth or towel in a double plastic bag. This bag can be placed into your mercury switch storage container and disposed or recycled properly as universal waste.
2. Mercury spill kits are available at laboratory safety supply stores.
3. Never use a vacuum to clean up a mercury spill. Mercury readily becomes a vapor, and a vacuum will disperse mercury into the air, where it can be inhaled.
4. Never use a broom to sweep up the mercury. This will create even smaller beads of mercury, which will be more difficult to collect.

Additional environmental information for auto recyclers

- Northwest Automotive Trades Association: www.aboutnata.org/Environment/MercurySwitch-OutProgram.html
- Clean Car Campaign: www.cleancarcampaign.org/switchremoval.shtml
- Washington State Vehicle Recycling Manual: www.ecy.wa.gov/pubs/97433.pdf

For more information on Hazardous Waste Management, contact DEQ at (503) 229-5913 or visit DEQ's Web site at www.deq.state.or.us/lq/hw/

Alternative Formats

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