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## Managing Mercury Switches: Information for Auto Recyclers

### Why is mercury a problem?

Mercury is a highly toxic metal and is often found in vehicle hood and trunk light switches. During crushing or shredding, mercury can be released into the environment, polluting water and soil. Mercury can also be released to the air when steel mills melt metal from scrapped autos. Although the amount of mercury in each switch is relatively small (about one gram), the potential amount of mercury released into Ohio's environment annually from auto recycling can total thousands of pounds.



There are no current mandatory Ohio EPA requirements to remove mercury switches at all auto recycling facilities. However, some auto shredders may be required to remove switches under the terms and conditions of their air pollution control permits. And, because of the growing concern over mercury and its toxicity, other auto recycling facilities may also be required to remove switches in the future.

By removing switches at your salvage yard, you play an important role in keeping mercury out of the environment. Mercury switch removal is not difficult nor expensive to do. This fact sheet provides basic information on switch removal to help you get started. If you have additional questions about switch removal, contact Ohio EPA's Office of Pollution Prevention at (614) 644-3469 or Small Business Assistance Office at (800) 329-7518.

Mercury is found in a small glass or metal capsule within hood and trunk light switches. These types of switches were commonly used in vehicles manufactured in the 1970s and 1980s. Some late model cars still use them, although the use of mercury is being phased out by many car manufacturers. A list of vehicles that are known to contain mercury switches can be found on U.S. EPA Region V's Web site at [www.epa.gov/Region5/air/mercury/autoswitch.htm#remove](http://www.epa.gov/Region5/air/mercury/autoswitch.htm#remove).

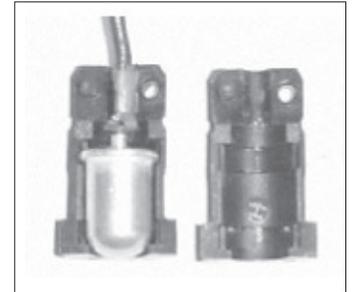
### Which vehicles contain mercury switches?

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### 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.



### How are switches removed?

Mercury switches should be removed before the vehicle is crushed. It only takes a few seconds to remove the hood and trunk lighting fixture and this can be done during the dismantling process.

The basics for removal include (1) cutting the power supply wire attached to the base of the light fixture and (2) removing any fasteners in order to separate the entire fixture from the vehicle.

A number of car manufacturers have published easy-to-understand fact sheets that outline the procedures for switch removal, including Ford, GM and Chrysler. You can find these procedures at [www.epa.gov/Region5/air/mercury/autoswitch.htm#remove](http://www.epa.gov/Region5/air/mercury/autoswitch.htm#remove).

#### IMPORTANT

**When removing switches, work very carefully to ensure that the glass capsule containing the liquid mercury does not break open.**

**If you do have a spill or release, immediately contact Ohio EPA's Division of Emergency and Remedial Response at (800)282-9378 for guidance on containing and cleaning up the release.**

## After removal, how should the switches be stored?

Properly storing switches after removal is very important, to protect both the environment and employees. For basic storage, remember the following:

- Collect mercury switches in a well-sealed, leak-proof, heavy, plastic container. Because mercury is heavy, it is recommended that switches be collected in 5-gallon plastic containers, not in large drums.
- Clearly mark your storage container so employees know what's in it and can take precautions to prevent exposure or damage to the container. Clearly label the container (for example, "Waste Mercury Switches").
- Store the mercury switch container in a safe area, away from heavy traffic and 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 leak through seams.
- NEVER break open mercury switches and try to remove the liquid mercury yourself! Leave this to a professional company specializing in mercury recycling.

## How can mercury switches be recycled?

There are several companies that can recycle the mercury found in switches and other devices. A list of mercury recyclers is available from Ohio EPA's Office of Pollution Prevention (OPP) by calling (614) 644-3469. Or, visit their Web site at [www.epa.state.oh.us/opp/recyc/mercrec.html](http://www.epa.state.oh.us/opp/recyc/mercrec.html).

The Ohio Mercury Reduction Group may also be a helpful resource for you. The group is a partnership of various state agencies and educational institutions, working to reduce mercury use and emissions in the state. One of the many activities of the group has been to assist in arranging for transportation and recycling of mercury waste. For help, contact Dave Heinlen, Bowling Green State University at (419) 372-2173. Or, visit the Web site for Ohio's Elemental Mercury Collection and Reclamation Program at [www.bgsu.edu/offices/envhs/environmental\\_health/mercury/program.htm](http://www.bgsu.edu/offices/envhs/environmental_health/mercury/program.htm).

## IMPORTANT

**Once mercury switches are removed, NEVER dispose of them with regular solid waste in your trash dumpster. If switches are not sent to a recycling company, then they must be sent to a hazardous waste disposal company.**

You do not need to pay a lot of money to recycle your mercury switches and, by doing so, you help play an important role in keeping Ohio's environment clean!

## Acknowledgments

Portions of this fact sheet were reprinted with permission from *Managing Mercury Switches: Information for Vehicle Dismantlers and Crushers*, State of Oregon, Department of Environmental Quality and *Managing Mercury Switches*, from the Minnesota Pollution Control Agency. We thank each for sharing their resources with us. Thanks also to the New York Department of Environmental Conservation for permission to use photos seen in this fact sheet.

## Resources

Office of Pollution Prevention  
Ohio Environmental Protection Agency  
P.O. Box 1049  
Columbus, Ohio 43216-1049  
E-Mail [p2mail@epa.state.oh.us](mailto:p2mail@epa.state.oh.us)  
Phone (614) 644-3469  
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Environmental Health and Safety  
102 College Park Office Building  
Bowling Green State University  
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Phone (419) 372-2171  
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