



# MERCURY IN CARS

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## Toxic Cars: Mercury in Vehicles

Believe it or not, the car sitting in your driveway or across the street may be a future source of mercury pollution. Despite the availability of cost-effective alternatives, the auto industry has used and in many cases continues to use mercury switches in its vehicles. The auto industry also refuses to take responsibility for the mercury-pollution



*Hood-light and trunk-light switches in pre-1998 vehicles often contain mercury. These switches are usually easily replaced with non-mercury, ball-bearing switches.*

problems caused when its vehicles are disposed of or recycled. This use has left local governments and the public with an expensive, unnecessary, and dangerous problem.

Auto manufacturers have historically used mercury for a number of purposes, including convenience lighting (hood and trunk switches), antilock brake systems (ABS), and active ride control systems. Increasingly, automakers are installing other products that contain mercury, including some headlamps, navigational displays, and family entertainment systems.

In most cases, mercury in vehicles is burned, recycled, or ends up in landfills, polluting our air and water. These disposal methods create a burden on the budgets of local

governments and the bottom line of small businesses such as auto recyclers and dismantlers. Local governments are often forced to establish programs to prevent and clean up mercury-pollution problems. Small businesses who dismantle or recycle vehicles often remove the mercury switches at their own expense.

Consider these facts about mercury in vehicles:

- In 1996 alone, about 11.2 tons of mercury was used in U.S.-made vehicles (Ecology Center 2001).
- About 217 pounds of mercury from vehicles is disposed of each year in Washington state (Washington State Department of Ecology 2002).
- About 99% of mercury in cars in the current automobile fleet is from hood and trunk light switches and ABS (Ecology Center 2001).

Mercury in cars represents a significant amount of mercury pollution, considering its adverse effects on human health and the environment at even very low levels. People exposed to mercury, often from eating contaminated fish such as tuna, shark, and some freshwater fish, can suffer mental problems and impaired vision, speech, hearing, and coordination. Fetuses and young children are especially at risk because of their developing nervous systems. Other facts about mercury are:

- Forty-one states have issued fish-eating advisories for women and children because of mercury contamination of our waterways and lakes.
- According to EPA estimates, more than 1.1 million women of childbearing age eat enough mercury-contaminated fish to pose a risk of harm to their future offspring (Greater Boston Physicians for Social Responsibility 2000).
- The National Academy of Sciences estimates that 60,000 infants born each year are at risk of neurological problems caused by exposure to mercury in the womb (National Academy of Sciences, 2000).
- The amount of mercury found in a typical hood or trunk switch, if released into the environment, may be enough to make the fish in a 20-acre lake too contaminated to be safely eaten (Institute of Scrap Recycling Industries 2001).

## Does My Car Contain Mercury?

There is no easy answer to this question because the auto industry has done a poor job tracking which cars do and don't contain mercury before the 2000 model year. We do know that European, Japanese, and other foreign manufacturers phased out the use of mercury switches in 1993. Most American-made vehicles prior to 1998 that contain hood



*The next time you have your vehicle in for service, have the mechanic check the hood- and trunk-light switches, and replace them if they contain mercury.*

or trunk lights are likely to contain mercury (Partnership for Mercury-Free Vehicles 2002). American automakers are expected to stop using mercury switches in all of their cars beginning with the 2003 models. The best way to answer the question is to ask your mechanic the next time you are in for servicing if your car has a mercury switch. If so, ask to have it replaced.

### Mercury Solutions: Alternatives to Mercury in Vehicles

In order to prevent further mercury pollution from vehicles, two key steps need to be taken. First, we need to phase out the use of mercury in vehicles, starting with mercury switches. As long as mercury continues to be used in vehicles, some of it will end up polluting our air and water.

Fortunately, cost-effective alternatives exist for most uses of mercury in vehicles. A ball-bearing switch that costs about ten cents more than its mercury counterpart is now being used in most new vehicles. And, because it is the same size

and shape of the mercury switch, it can usually replace the mercury switch in older cars easily.

A computerized system called an analog accelerometer is the most common mercury-free alternative to anti-lock brakes. However, because the mercury switch systems and the analog accelerator systems are not compatible, the systems are not interchangeable.

Second, safer, more effective systems must be established to ensure that mercury in vehicles that are at the end of their life is disposed of properly. In 1999, there were 210 million vehicles on the road in the United States containing an estimated 215 million mercury switches (Ecology Center 2001). The state of Maine recently passed a bill that requires automakers to pay for part of the cost of removing and disposing of mercury switches. Washington and other states need to follow Maine's lead and force automakers to take responsibility for a problem that they created.

### What You Can Do

Send a letter to the Department of Ecology urging them to develop a strong Mercury Chemical Action Plan that bans the use of mercury switches in vehicles and requires automakers to take financial responsibility for establishing safer, more effective systems for preventing old mercury switches from polluting our air and water. Ecology is currently developing a plan for eliminating mercury, and your comments are critical to making the plan as strong as possible. Letters can be sent to: Director Tom Fitzsimmons, Department of Ecology, PO Box 47600, Olympia, WA 98504-7600; [tfit461@ecy.wa.gov](mailto:tfit461@ecy.wa.gov); phone 360-407-7001, fax 360-407-6989.

### References

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