



# Environmental Health & Safety

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## Quicksilver

Last November, a mercury spill was reported to the Department of Environmental Health and Safety. The spill was located outside a door leading to the alley behind Seaton Hall. The mercury spill covered the entire alley and roadway behind Seaton Hall leading to 17<sup>th</sup> Street. After a very large effort and quite a few dollars (over \$30,000), the mercury was cleaned up and recycled. We estimated about 20-30 pounds of mercury was originally spilled and tracked over a large distance.

One comment we heard during the clean-up was, "I remember playing with this stuff when I was a child. So what's the big deal?" Well, it is a big deal. Mercury is one heavy metal that is no plaything, it is a hazardous material that is found almost everywhere. It is found in barometers, thermometers, gauges, switches, and seals. As a vapor, it is found in mercury vapor lamps and fluorescent lamps. Small quantities of mercury are also found in dry cell batteries. We pick up and recycle quite a bit of mercury each year. In fact, last year we recycled over 400 pounds from one department alone. There is an awful lot of mercury present on campus.

What is the big deal? Mercury is the only heavy metal that is a liquid at room temperature. Thus, mercury can vaporize and be absorbed through the lungs. Liquid mercury is slowly absorbed through the skin. Once absorbed into the body, it has a toxic affect on the kidneys and brain. Young children and developing fetuses are especially susceptible to mercury.

Mercury disrupts the metabolic processes in the brain causing irreversible tremor and psychopathological symptoms such as shyness, insomnia, depression, and irritability. In fact, this disease was so prevalent in the past that it had a name, Mad Hatter's

Disease.

Mercury is also found as an organic metal. These compounds, such as dimethylmercury, are quickly absorbed and are therefore extremely toxic. Metallic mercury can be biotransformed under certain circumstances to organomercury and wreak havoc in humans.

Over the past year, Kansas has experienced an increase in the number of mercury spills. Homes and schools have been impacted and lives have been disrupted as officials worked to clean up contaminated sites. Mercury spills must be quickly and completely remediated because of the adverse health effects.

To minimize the potential for future spills and associated health risks, the Kansas Department of Health and Environment (KDHE) is collecting elemental mercury for recycling. All costs associated with the packaging, transportation, and recycling of collected mercury will be covered by the State of Kansas using solid waste landfill tipping fee revenue. Local governments are contributing staff resources to carry out the collection activities. You may have seen the ads in the Manhattan Mercury.

In cooperation with this clean-out, the Riley County Household Hazardous Waste unit will accept mercury between May 1 and June 30, 1998. To help out, Kansas State University will participate by recycling as much mercury materials as can be collected on campus as well as accept mercury from households.

**You can drop off any mercury materials with no questions asked at 108 Edwards Hall (West entrance), call for a pick-up (2-5856), or e-mail: [safety@ksu.edu](mailto:safety@ksu.edu).**