

## MERCURY

The City of Willard wishes to enhance our community by educating the public about health hazards, ways to protect our environment, encourage the use of alternative products, and promote the management of proper methods of recycling. You can make a difference that should lead to a safe, economical, healthy lifestyle, and cleaner environment.

This article is the fourth in a series of public information awareness facts about toxic substances.

The substance of concern is mercury. Mercury is an element that is sometimes called quick or liquid silver. The problems associated with mercury is that it readily vaporizes into the air which can lead to health problems if inhaled; and when it enters water mercury is highly toxic to aquatic life, animal, and humans.

The most common way people are exposed to any form of mercury is by eating fish containing methylmercury. Other exposures include breaking products containing pure mercury and using compounds that contain mercury.

Methylmercury poisoning can occur in adults, children, and developing fetuses from ingestion exposure to methylmercury. The nervous system can be affected and cause infants to have severe disabilities.

Additionally other symptoms of mercury poisoning may include: impairment of the peripheral vision; disturbances in sensations ("pins and needles" feelings, usually in the hands, feet, and around the mouth); lack of coordination of movements; impairment of speech, hearing, walking; muscle weakness; tremors; emotional changes (e.g., mood swings, irritability, nervousness, excessive shyness); insomnia; neuromuscular changes (such as weakness, muscle atrophy, twitching); headaches; changes in nerve responses; performance deficits on tests of cognitive function; skin rashes and dermatitis; memory loss; and mental disturbances. At higher exposures there may be kidney effects, respiratory failure and death. People concerned about their exposure to mercury should consult their physician.

The Environmental Protection Agency has through the years recognized the need for lower mercury discharge limits. Testing for mercury started out by analyzing data in parts per million, then parts per billion, and now parts per trillion. Each level is one thousand times lower than the previous. The City has an approved mercury variance that granted us a discharge limit of 9.9 parts per trillion average for a month. You may wonder what one part per trillion means in terms of the amount water? Parts per trillion is 1,000,000,000,000 and is equal to less than half of a drop of oil in a super tanker containing six million gallons of oil would comprise one part per trillion.

Some of the conditions of the variance are to find, reduce or eliminate discharge sources of mercury from the City. Surveys and inspections have already been conducted at our hospital, industries, doctors, dentists, schools, railroad, automotive parts, service garages,

and body shops.

Mercury can be found as a pure liquid or in compounds. Some of the products that may contain mercury are as follows: barometers, batteries, bulbs-compact and florescent, caustic soda, ceramic glazes, dental amalgam, antiseptics, disinfectants, esophageal dilators, fungicides, herbicides, ink, laboratory chemicals, manometers, paint-pigments, pesticides, preservatives, relays, sensors, sphygmomanometers, stains, sulfuric acid, switches-auto and level control, thermometers, thermostats, used oil, vacuum gauges.

You can do your part to help our community by substituting products to new ones free of mercury. You may want to check labels to see if mercury is present. Purchase paint and related products free of mercury. Instead of mercury thermometers, purchase alcohol filled or digital ones.

These are just a few examples. Recycle your old mercury products if possible.

The City offers residents a free of charge way to recycle products that contain liquid mercury. Mercury may be recycled the first Wednesday of each month from 11:00 a.m. to 1:00 p.m. at the City of Willard, Water Pollution Control Plant, 7 B & O Pike East. For more information, please call Stephen E. Koch at 419-933-7515.