Mercury in Our Lives

Mercury is used in thermometers, thermostats, barometers, float valves, mercury switches, fluorescent light bulbs, batteries, mildew resistant paints made before 1990, some auto parts, some illegally imported cosmetics such as skin whitening products, and some other products and devices. Be especially careful when handling these and other devices which may contain mercury which were made before the year 2000. It is used in scientific research and in the amalgam material used for dental purposes. Mercury is released through some manufacturing processes. The release from these processes, leaching from landfills, finds its way into water, air, soil, and therefore into our fish and wildlife.

Natural sources account for less than 50 percent of the total releases. Visit http://www.usgs.gov/mercury/publications.asp for more information about mercury.

• **Dental Amalgam** is a combination of one part liquid <u>mer-</u> <u>cury</u> with one part of a metallic alloy which mainly contains silver and tin. It has been used for over 150 years in dental repairs. The amalgam mercury is mixed with the other metals to form a paste that can be fitted to the <u>tooth cavity</u>. The mixture sets relatively fast to form a hard alloy. Today its use is controversial. Many dentists advocate removal of amalgam fillings and replacement with other materials by a special procedure.

Mercury in Our Food

Methylmercury (organic mercury) is the greatest source of ingested mercury and is found in fish and shellfish. Although fish and shellfish are important to our diet because they contain protein, Omega-3 fatty acids, contribute to heart health, children's growth, and have overall nutritional value, the EPA advises individuals (especially children, pregnant and nursing women, and women of child-bearing ages) to avoid certain types of fish, including swordfish, shark, king mackerel, and tilefish. All individuals are advised to limit portions of albacore tuna to less than 6 oz. per week, and all other fish and shellfish to less than 12 oz. per week. Visit http://water.epa.gov/scitech/swguidance/fishshellfish/ outreach/advice index.cfm for information about mercury in fish. Visit http://www.deg.louisiana.gov/portal/tabid/2733/ Default.aspx for mercury levels in Louisiana fish. Visit http://www.nrdc.org/health/effects/mercury/guide.asp to see a lists of fish which are most safe to eat.

Cleanup Instructions

Warning: Mercury is a virulent poison.

Short-term or long-term exposures to mercury can lead to serious health problems, including death. Human exposure to mercury occurs primarily from breathing contaminated air. Mercury is also readily absorbed though the gastrointestinal tract and through the skin. Even though symptoms do not appear, serious damage can be done to the human body. Never use a vacuum cleaner to clean up a mercury spill. Children and pregnant women should not be exposed to mercury. In the case of a large spill, all occupants should evacuate the area.

Handling. If mercury escapes into the environment, evacuate children and pregnant women. Remove all jewelry, especially gold. Handle the mercury carefully. Wear rubber gloves and with a piece of cardboard or folded paper scoop it onto a sheet of paper or collect it with an eyedropper. Place the mercury in a medicine vial or similar airtight container. The scoop, paper, or evedropper should also be bagged and disposed of properly according to guidance provided by environmental officials or your local health department. Ventilate the room to the outside and close off the rest of the home. Use fans for a minimum of one hour to speed the ventilation. Do not simply throw the mercury away. Seek professional guidance from local recycling, solid waste or hazardous waste agencies. Large re- tailers and building centers may accept glass-encapsulated mercury, as in thermostats, for recycling.

Keep any objects containing mercury out of the reach of children. Children found to be playing with liquid mercury or broken fluorescent lamps should be referred to a physician or poison control center immediately. Mercury contaminated gold jewelry must be taken to a jeweler to have them professionally cleaned. While handling mercury, or any other hazardous substance, one should always wear protective gloves. If mercury contacts with the skin, wash the area(s) thoroughly and immediately with soap and warm water. If you believe that you have absorbed mercury though your skin or inhaled mercury vapors, you should contact your physician or poison control center immediately.



Why You Should Know About MERCURY

The Environmental Protection Agency, the Department of Environmental Quality, and the State of Louisiana have instituted regulations that require parishes and municipalities, as part of their Sanitary Waste permits, to test for mercury and to establish a Mercury Minimization Plan. In compliance with governmental regulations, the Town of Independence is required to provide vou with the following general information about mercury as part of its Plan.

> Town of Independence 583 W. Railroad Ave Independence, LA 70443

> > 985-878-4145

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What is Mercury?

Mercury is a chemical element with the symbol Hg and atomic number 80. It is commonly known as guicksilver and was formerly named hydrargyrum (from Greek "hydr-" water and "argyros" silver). A heavy silvery d-block element, mercury is the only metal that is liquid at standard conditions for temperature and pressure; the only other element that is liquid under these conditions is bromine, though metals such as cesium, gallium, and rubidium melt just above room temperature. With a freezing point of -38.83°C and a boiling point of 356.73°C, mercury has one of the narrowest ranges of its liquid state of any metal. Some mercury exists naturally in the environment and is found naturally in small amounts in air, water, rocks, and soil. It exists in a large number of forms.

Mercury exists in the following main states under natural conditions:

- As metallic vapour and liquid/<u>elemental mercury</u>* (Mercury in its simplest form).
- Bound in mercury containing minerals (solid).
- As ions in solution or bound in ionic compounds (inorganic and organic salts);
- As soluble ion complexes;
- As gaseous or dissolved non-ionic organic compounds;
- Bound to inorganic or organic particles/matter by ionic, electrophilic or lipophilic adsorption.

Elemental mercury is not accumulated and is excreted by the body within days or weeks of consumption.

On the other hand, methylmercury, an organic compound, can remain in the body for years if incorporated into the central nervous system.

Reducing Mercury

The United States Federal Government, the State of Louisiana, and the Department of Environmental Quality have been working with private industry to evaluate and to reduce mercury emissions and risks where possible.

For information posted by the Louisiana Department of Environmental Quality, visit

http://www.deq.louisiana.gov/portal/ Default.aspx?tabid=287

For data on mercury in Louisiana, visit

http://www.deq.louisiana.gov/portal/PROGRAMS/ MercuryInitiative/DataonMercuryinLouisiana.aspx

Beginning in 2006, the State of Louisiana initiated Mercury Risk Reduction Act 126 of the 2006 Regular Session of the Legislature regarding the control of mercury releases to the environment.

On January 1, 2013, by federal law, it became illegal to export elemental mercury from the United States. The *Mercury Export Ban Act* also has provisions for the long-term mercury management and storage of elemental mercury.

Independence and Mercury

Currently the Town of Independence has no advisories, warnings, or reports of elevated levels of mercury in its drinkable water, air, or soil samples.

Mercury Poisoning Signs and Symptoms

Mercury poisoning (hydrargyria or mercurialism) can affect the brain, kidney, and lungs. Common symptoms might include itching, burning, or pain, skin discoloration, swelling, and shedding of skin. Children may exhibit red cheeks, nose and lips, loss of hair, teeth, and/or nails, rashes, muscle weakness, and/or increased sensitivity to light. Since these and any symptoms may be indications of conditions other than mercury poisoning, always contact a physician or emergency facility depending on the severity of symptoms, especially in the case of children or the elderly.

The Louisiana Poison Control Center's 24-hour toll-free number is **1-800-222-1222.**

1-800-222-1222 is the telephone number for every poison center in the United States. Call this number 24 hours a day, 7 days a week to talk to a poison expert. Call right away if you have a poison emergency. Also call if you have a question about a poison or about poison prevention.

When you call **1-800-222-1222**, you are automatically connected to the poison center for your area. Your call is routed according to the area code and exchange of the phone number you are calling from.

If you call from a cell phone, you will reach a poison center. Depending on your cell phone carrier, you might reach the poison center in the area where you are or in the "home" area of your cell phone. Either poison center can help you. If you need local assistance but reach the poison center back home, the "at home" poison center can coordinate with the poison center at your current location. You will get the care and information that you need.