



Mercury factsheet



What is mercury?

Elemental mercury is silvery-white. It is the only metal that is liquid at room temperature. There are three forms of mercury, each with different properties, applications and toxicity: (1) elemental (or metallic) mercury, (2) organic mercury and (3) inorganic mercury.

Occurrence of mercury

Elemental mercury is released into the environment as a result of various natural processes, such as forest fires, flooding and rock weathering. It can therefore be detected in the air, water and soil. Non-natural (i.e. anthropogenic) releases of mercury are due, for example, to waste incineration, fossil fuel burning and industrial processes. Mercury can also enter the environment when products containing this substance are disposed of inappropriately. Fish and shellfish can absorb mercury from seawater, leading to bioaccumulation in the food chain.

Toxicity

Chronic exposure to mercury can cause damage to the central nervous system, kidneys and stomach. It is also associated with tremors, personality changes (irritability, social withdrawal) and short-term memory loss. As mercury in the form of methylmercury can cross the placental barrier, there is also a risk of fetal exposure. At high concentrations, this can cause developmental disorders – especially of the nervous system.

Potential sources of mercury exposure

A high intake of mercury may be the result of frequent consumption of fish products with a high mercury content (swordfish, tuna, seafood, etc.). Other known sources of mercury exposure are dental amalgam fillings.

Human biomonitoring of mercury

Mercury is frequently measured in blood, urine or hair samples. Blood samples are analysed to determine exposure to organic mercury, and urine samples to determine exposure to inorganic mercury. Hair testing is useful for determining the history or course of mercury exposure, e.g. through fish consumption. If measurable concentrations of mercury are detectable in blood, urine or hair samples, this does not necessarily indicate adverse health effects.

Risk management/measures to reduce mercury exposure

Exposure to mercury can be reduced by: good occupational hygiene, avoidance of food contaminated with mercury, and appropriate disposal of broken thermometers, energy-saving light bulbs and other products containing mercury.

Further information (Only available in German, French and Italian)

<http://www.bag.admin.ch/themen/chemikalien/00228/03912/index.html?lang=de>