Mercury

For this project I am going to be doing mercury. Mercury has an atomic number of 80 and an atomic symbol of Hg. It’s most common isotope is Hg-201 and it is a transition metal. It has 80 protons and 80 electrons, with the electrons ending on the 6th electron ring. Its common nickname is quicksilver and its name before that was hydrargryrum, which is Greek for silver water. It was discovered around 1500 BC by the Egyptians.

In China and Tibet, mercury was thought to be a healing substance that could even prolong life, although now it is known to do the exact opposite. One example of this is when the first emperor of China drank a mixture of mercury and powdered jade, believing it would give him eternal life. Instead it gave him mercury poisoning, liver failure, and brain death. The Greeks would use mercury as an ointment, and the Egyptians and Romans would use it as a cosmetic, which would usually deform the face.

It is a heavy, silvery white metal. It does not conduct heat well but will conduct electricity. It has a low melting point with -37.89 °F, as well as a low boiling point at 674.11 °F. A simple explanation of this is that mercury is similar to the noble gases, which forms weak bonds and makes solids that easily melt.

Mercury doesn’t react with most acids but, like silver, it will react with atmospheric hydrogen sulfide. It will also react with solid sulfur flakes, which are used in mercury spill kits to absorb mercury vapors.

Mercury is used in some medical applications although now less than before, since its toxic effects are more widely understood. Some examples of this is the compound thimerosal, which is used as a preservative in vaccines. Cinnabar, one of mercury’s common ores, is used in various traditional medicines, such as traditional Chinese medicines.

Mercury is used primarily for the manufacture of industrial chemicals or for electrical and electronic applications. It is used in some thermometers, especially ones which are used to measure high temperatures. A still increasing amount is used as gaseous mercury in fluorescent lamps, while most of the other applications are slowly phased out due to health and safety regulations.

Mercury is found in some medical thermometers as well as liquid mirror telescopes. Gaseous mercury is sometimes used in fluorescent lights, similar to neon signs. Mercury, as thimerosal, is widely used in the manufacturing of mascara.

Mercury is a very commonly used item, although now less than ever. It is now known to be used in many ancient civilizations, as well as occasionally in present times. In the future, mercury will most likely be completely replaced by a similar, non-toxic, element.

By,

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