

## Mercury - Hg

**Mercury** was known to ancient Chinese and Hindus and was found in Egyptian tombs of 1500B.C. **Mercury** rarely is found free in nature. The chief ore is cinnabar (HgS). The **metal** is obtained by heating cinnabar in a current of air and by condensing the vapour. **Mercury** is a heavy, silvery-white **metal**, and is the only **metal** to be a liquid at room temperature. It does not oxidise at ordinary temperatures however it will absorb oxygen at close to boiling point and in doing so converts to a red crystalline powder, known as mercuric oxide (HgO). **Mercury** is a poor conductor of heat, when compared to other metals, and is a fair conductor of electricity. **Mercury** forms a large number of compounds all of which are poisonous and some explosive. **Mercury** 203 is radioactive

**Mercury** is used for:

- Separating gold and silver from their ores
- Coating mirrors
- An expansive **metal** in thermometers
- **Mercury**-vapour lamps
- Diffusion pumps
- Tanning
- Batteries
- Advertising signs
- The frozen-**mercury** moulding process
- **Mercury**-vapour motors
- Circulating medium in atomic reactors
- Amalgams

Compounds of **mercury** are used for

- Fungicides
- Pharmaceuticals e.g. black mercurous oxide (Hg<sub>2</sub>O) is used in skin ointments and Mercurochrome (C<sub>20</sub>H<sub>8</sub>O<sub>6</sub>Na<sub>2</sub>Br<sub>2</sub>Hg), a green crystalline powder that turns to a brilliant red when dissolved in water is used as an antiseptic
- Paint pigments e.g. **Mercury** sulphide (HgS) is a brilliant red pigment
- Explosives
- Mercuric chloride (HgCl<sub>2</sub>) an extremely poisonous white crystalline powder, water and alcohol soluble, used as a wood preservative, as an insecticide and rat poison, in tanning, as a mordant and as a caustic antiseptic in medicine