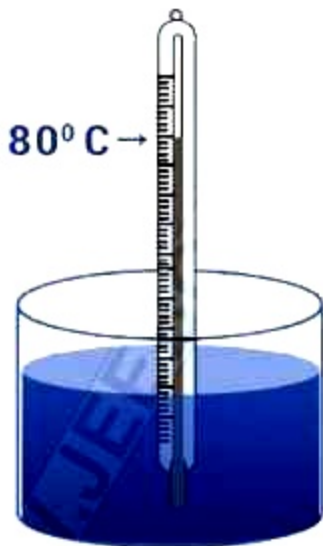


**MERCURY - Hg****80**

Atomic Number



## MERCURY = Thermometer

**CLUE:** Mercury is the only metal in the periodic table that is found to be in liquid state. Mercury is used mainly in making thermometers. This picture shows a thermometer dipped in a beaker containing hot water. The thermometer shows that the temperature of hot water is 80°C. Number 80 is the atomic number of element mercury.

## Facts about Mercury

The name Mercury is derived from the first planet of our solar system Mercury. Its chemical symbol 'Hg' is derived from the Greek word 'Hydrargyrum' which means 'liquid silver'. Mercury is a dense, silvery white and highly toxic metal. When ingested, it can cause severe illness and death. Mercury has the lowest melting point and is the only metal found in liquid state at room temperature. It is also good conductor of electricity. The alloys of mercury with other metals are called **amalgams** e.g. sodium amalgam is made by mixing sodium with mercury. The most important ore of mercury is **cinnabar** (HgS).

**Type of Element** : Transition Metal

**Atomic Number** : 80

**Electronic** : 2, 8, 18, 32, 18, 2 or

**Configuration**  $1s^2, 2s^2 2p^6, 3s^2 3p^6 3d^{10}, 4s^2 4p^4 4d^{10} 5s^2 5p^6 4f^{14} 5d^{10} 6s^1$  or  
 $[Xe]^{4f^{14} 5d^{10} 6s^1}$

**Atomic Mass** : 200.59 g/mol

**Group, block** : 12, d-block

**Period** : 6

**Oxidation States** : +1, +2

**Isotopes** : 7 ( $_{80}^{196}\text{Hg}^{196}$ ,  $_{80}^{198}\text{Hg}^{198}$ ,  $_{80}^{199}\text{Hg}^{199}$ ,  $_{80}^{200}\text{Hg}^{200}$ ,  $_{80}^{201}\text{Hg}^{201}$ ,  $_{80}^{202}\text{Hg}^{202}$  and  $_{80}^{203}\text{Hg}^{203}$ )

**Discovered by** : Ancients

### Uses of Mercury:

1. Mercury is used in thermometers, barometers and manometers.
2. Mercury is used in making **Ruben-Mallory cell** also called **mercury cell** which is used in watches.
2. Mercury is used to make mercury vapor lamps. These lamps are used for street lighting.

### Multiple Choice Question

**Question 80:** Essential constituent of an amalgam is;

- |           |                    |
|-----------|--------------------|
| a) Iron   | b) An alkali metal |
| c) Silver | d) Mercury         |



Mercury