

Molybdenum (Mo)

Atomic number: 42

Atomic mass: 95.95

Description: The name is derived from the Greek 'molybdos' meaning lead.

Discovered by: Peter Jacob Hjelm in 1781.

Properties:

Melting point: 2895K

Boiling point: 4912K

Density: 10.2 g/cm³

State: Solid

Group: 6

Period: 5

Block: d

Electronic Configuration: [Kr] 4d⁵4s¹

Isotopes: ⁹⁵Mo, ⁹⁶Mo, ⁹⁸Mo

Appearance: A shiny, silvery metal

Uses:

- 1) It has a very high melting point, so it is produced and solid as a grey powder. Many molybdenum items are formed by compressing the powder at a very high pressure.
- 2) Most molybdenum is used to make alloys. It is used in steel alloys to increase strength, hardness, electrical conductivity and resistance to corrosion and wear. These moly steels alloys are used in parts of engines. Other alloys are used in heating elements, drills and saw blades.
- 3) Molybdenum disulphide is used as a lubricant additive. Other uses of molybdenum include catalysts for the petroleum industry, inks for circuit boards, pigments and electrodes.

Source: www.rsc.org

