

Molybdenum (Mo)



Molybdenum is a silvery gray hard and ductile metal. Molybdenum occurs in nature as a component of several minerals, never as a pure metal. About 80 % of molybdenum is used to make steel alloys and the rest is used in chemical industry, medicine, agriculture and electronic technology. Due to the increase in the industrial use of molybdenum and its relative rarity in the nature, recycling of products containing this metal is increasingly important.

Mo
Molybdenum

[Kr] 4d⁵ 5s¹

Atomic number
protons/electrons

42

Neutrons

(most common isotope)

56

Atomic weight

(amu)

95.95

Atomic radius

(pm)

154

Functions/Health effects:

Molybdenum is an indispensable element in the formation of uric acid as well as a part of four different enzymes in human body. It is responsible for maintaining arterial elasticity and cardiovascular health, regulating immune and thyroid function and an important component of the iris of the eye. Molybdenum deficiency, as well as its excess from food, is unlikely and unusual.

Sources:

Molybdenum is found in all foods, with the best sources being legumes, dairy, nuts, and beef liver. The recommended daily dose of molybdenum is about 50 micrograms for the average adult. A single 100 g serving of beef liver or a similar portion of lima beans will provide you with almost twice the daily required dose of molybdenum.

Did you know that?

Molybdenum has an extremely high melting point of about 2620 °C, which makes it excellent material for furnaces and other heat-resistant applications.

Molybdenum gets its name from the Greek word molybdos, meaning "lead". Due to the soft black appearance of the mineral molybdenite, the sulphide ore of molybdenum, it was originally thought to be lead ore.

Food
division

