

Thallium (Tl)

Atomic mass: 81

Atomic mass: 204.38

Description: It is derived from the Greek 'Thallos', meaning a green twig.

Discovered by: William Crookes in 1861.

Properties:

Melting point: 577K

Boiling point: 1746K

Density: 11.8 g/cm³

State: Solid

Group: 13

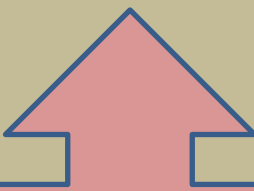
Period: 6

Block: p

Electronic Configuration: [Xe]4f¹⁴5d¹⁰6s²6p¹

Isotopes: ²⁰⁵Tl

Appearance: A soft silvery metal that tarnishes easily.



Additional: It is a toxic element. Thallium sulphate was employed as rodent killer-it is odourless and tasteless and is prohibited in many developed countries.

Uses:

- 1) It is used by electronic industry in photoelectric cells.
- 2) Thallium oxide is used to produce special glass with high refractive index, and also low melting glass that becomes fluids in 125K.
- 3) An alloy of mercury contains 8%Thallium has melting point 20°C lower than mercury alone. This can be used in low temperature thermometers and switches.

Source: www.rsc.org

