Copper

My element is Copper. The atomic number is 29, the approximate weight is 64. The chemical symbol is Cu. Cu comes from the Latin word Cyprium. This was shortened later on to Cuprum. Copper has been known since ancient times. Copper tools have been around since 4000 BC. Copper has many different uses. Such as jewelry, electrical wires and plumbing pipes. Pure copper is a red orange color. Copper tarnishes a little bit when exposed to water, but does not rust. Copper is a soft metal. It can be bent, cast into useful shapes and beaten. Copper has 29 protons. Any element that has 29 protons is an atom of the element copper. An atom of copper has 29 protons and 29 electrons.

Copper is classified as a ‘Transition Metal’. Copper is solid at room temperature; malleable; ductile; and a conductor of heat and electricity. It’s atomic weight is 63.546. Copper has 34-36 neutrons. Melting point is: 1984 degrees Fahrenheit, and it’s boiling point is 4644 degrees Fahrenheit. Copper is commonly found on the Earth’s crust as copper ores; also as a native metal.

Copper is in group 11 and period 4. It is kind of in a box. Surrounded by Zinc to the right. Then Cadmium is downward diagonal to the right. Silver is directly under copper. Palladium is to the bottom left diagonal. And Nickel is to the direct left. It is in period 4 because it has 4 shells of electrons. If you read the periodic table left to right each element gains one proton than the one to its left.

Density is the measure of how much mass an object contains in a given volume. Copper’s density is 8.96 g/cm cubed. Did you know that solids and liquids are usually less dense than gases? So let’s say if you drop a piece of copper into a glass of water, it will sink because copper is more dense than water is. If you drop a piece of copper in almost every liquid it will sink. Not all liquids but some.

Copper is usually a soft metal, unless you add other elements to make it harder. But if you add to many elements it will cause it to corrode quicker. The hardness of most common substances is measured with a scale called Mohs’ scale. He was a German mineralogist, he figured this scale out by a scratch test other miners did. On Mohs’ scale copper has a hardness of 3. Turn to the last page to see the scale.

Copper conducts electricity and heat as all metals can. Among commonly used metals copper is the best conductor of electricity and heat. Most chefs prefer copper cooking pots made of all copper because of how much heat they can conduct. Like gold and silver copper is used for the making of medicines and machinery. It is also used in the making of jewelry and coins. If you don’t have a 24 karat gold piece of jewelry some copper or silver is usually mixed on with the jewelry.

In conclusion, we couldn’t live without copper, there is copper in our homes, electronics, and even our bodies. Try and imagine our world without copper. None of us would have computers, TVs, phones, barely any electronics.

Moh’s Scale

Hardness Rating Examples

1. Talc
2. Gypsum (rock salt, fingernails)
3. Calcite (copper)
4. Fluorite (and Iron)
5. Apatite (and Cobalt)
6. Orthoclase (and Rhodium)
7. Quartz
8. Topaz (and Chromium)
9. Corundum (sapphire0
10. Diamond