

# List Of Important Metals and Their Ores with Chemical Formulas

## What is a Metal?

Electro positive elements are known as metals. there are 90 metals in modern periodic table. A metal is a material that is typically hard when in the solid state, opaque, shiny, and has good electrical and thermal conductivity.

## What is a Minerals?

The solid natural material containing compounds of metals in the combined state along with earthly impurities and found beneath the earth surface is called a mineral.

## What is an Ore?

those minerals from which the metals are extracted commercially ( at a comparatively low cost) and economically and with minimum effort are called ores of the metal.

## What is a Gangue?

The earthly and other insoluble impurities associated with the minerals are known as gangue.

**All ores of the metals are minerals our all minerals are not ores.**

**Table of Important Metals and their Ores**

SI No	Name of the Element	Ores	Chemical Formulas
1	Aluminum (Al)	Bauxite	$\text{Al}_2\text{O}_3 \cdot 2\text{H}_2\text{O}$
		Corundum	$\text{Al}_2\text{O}_3$
		Kryolite	$\text{Na}_3\text{AlF}_6$
2	Calcium (Ca)	Dolomite	$\text{MgCO}_3 \cdot \text{CaCO}_3$
		Lime Ston	$\text{CaCO}_3$
3	Copper (Cu)	Copper Glance	$\text{Cu}_2\text{S}$
		Copper Pyrite	$\text{CuFeS}_2$
		Malachite	$2\text{CuCO}_3 \cdot \text{Cu}(\text{OH})_2$
4	Gold (Au)	Calve rite	$\text{AuTe}_2$
		Sybarite	$\text{AgAuTe}_2$
5	Iron (Fe)	Hematite	$\text{Fe}_2\text{O}_3$
		IronPyrite	$\text{FeS}_2$
		Magnetite	$\text{Fe}_3\text{O}_4$
		Siderite	$\text{FeCO}_3$
6	Lead (Pb)	Anglesite	$\text{PbCl}_2$
		Galena	$\text{PbS}$
7	Phosphorous (P)	Floreopetite	$3\text{Ca}_3(\text{PO}_4)\text{CaFe}_2$
		Phosphorite	$\text{Ca}_3(\text{PO}_4)\text{CaFe}_2$
8	Potassium (K)	Karnalite	$\text{KClMgCl} \cdot 6\text{H}_2\text{O}$

		Salt Petre	$\text{KNO}_3$
9	Magnesium (Mg)	Dolomite	$\text{MgCO}_3\text{CaCO}_3$
		Karnalite	$\text{KClMgCl}_2\cdot 6\text{H}_2\text{O}$
10	Mercury (Hg)	Calomel	$\text{Hg}_2\text{Cl}_2$
		Cinnabar	$\text{HgS}$
11	Silver (Ag)	Silver Glance	$\text{Ag}_2\text{S}$
12	Sodium (Na)	Rock Salt	$\text{NaCl}$
		Sodium Carbonate	$\text{Na}_2\text{CO}_3$
13	Tin (Sn)	Classiterite	$\text{SnO}_2$
		Tin Pyrites	$\text{Cu}_2\text{FeSnS}_4$
14	Zinc (Zn)	Calamine	$\text{ZnCO}_3$
		Zinc Blende	$\text{ZnS}$

### Facts about Important Metals and Their Ores

1. The most common metal ores are oxides and sulphides.
2. Sulphides are the oldest ores, formed in the Earth's history when there was a lot of sulphur from volcanic activity.
3. Oxides formed later when photosynthesis in plants released large amounts of oxygen into the atmosphere.
4. Iron ore is the most common element in the world and makes up close to 5% of the Earth's crust. This makes it one of the most abundant rock elements.
5. Aluminium is one of the most common elements in the Earth's crust and is found in a variety of silicate ores, which are often a type of clay.