



Magnetite

Industrial Grade

Chemical Name: iron(II,III) oxide
Chemical formula: Fe₂O₄
Molecular weight: 231.53 g/mol
Density: 5.15g/cm³
Specific gravity: 5.0-5.2

Appearance

Black or dark grey lumps

Properties

Magnetite crystallises in octahedral and dodecahedral forms but can also appear as granular masses. Its streak is black, and its mixed valency (containing both Fe²⁺ and Fe³⁺ ions) gives it unique electrical and magnetic characteristics.

Usage

Magnetite is widely used in various industries due to its magnetic properties. It is a key component in the production of iron and steel.

Additionally, it is used in dense media separation processes for coal washing and mineral separation. Magnetite is also applied in electronics and magnetic recording media, and its unique properties make it valuable for environmental cleanup, particularly in water treatment and pollution control.

Packing

1.5MT big bags in bulk, loose in containers/bulk.

Chemical Analysis

Iron - Fe %	49.00	Phosphorus - P %	0.35
Iron(II) oxide - FeO %	4.63	Chlorine - Cl %	0.44
Iron(III) oxide - Fe ₂ O ₃ %	64.92	Barium Oxide - BaO %	Nil
Iron - Fe Metal %	- -	Zinc oxide - ZnO %	0.03
Silicon dioxide - SiO ₂ %	23.46	Zinc - Zn %	0.02
Calcium oxide - CaO %	2.67	Titanium dioxide - TiO ₂ %	0.11
Magnesium oxide - MgO %	0.41	Sodium oxide - Na ₂ O %	0.75
Aluminium oxide - Al ₂ O ₃ %	1.37	Potassium oxide - K ₂ O %	0.35
Manganese(II) oxide - MnO %	0.03	Carbon - C %	Nil
Sulphur - S %	0.01	Loss On Ignition - LOI %	Gain
Phosphorus pentoxide - P ₂ O ₅ %	0.81	Moisture %	Nil