



Mill Scale

Industrial Grade

Other Names: Pig Iron, Flaky iron oxide, Rolling scale, Steel mill scale, Hot rolling scale, Black scale

Chemical Name: No chemical name because it is a mixture of iron oxides.

Chemical Formula: N/A It's Primary components are Wüstite (FeO), Magnetite (Fe₃O₄), Hematite (Fe₂O₃)

Molecular weight: N/A - it is composed of:

Wüstite (FeO): 71.85 g/mol

Magnetite (Fe₃O₄): 231.54 g/mol

Hematite (Fe₂O₃): 159.69 g/mol

Density: 4.9 to 5.7 g/cm³

CAS Number: 65996-74-9

HS Code: 2619.00

Appearance: Blueish-Grey, Grey flakes

Properties

Mill scale is a dense, brittle byproduct of steel processing, composed mainly of iron oxides like wüstite, magnetite, and hematite. It has a bluish-gray appearance, offers limited corrosion protection, and reacts with acids or high temperatures, making it useful in steel recycling and cement production.

Usage

Mill scale is primarily used in steel production, cement manufacturing, iron extraction, surface cleaning, coatings, and ferroalloy production.

Packing: bulk/loose in containers

Typical Properties

Iron as Fe	70% Basis Rejection Below 68%
Sulphur as S	0.10% max.
Silica as SiO ₂ + Calcium as CAO	3% max.
Phosphorus as P	0.10% max.
Alumina as AL ₂ O ₃	2.5% max.