



錳礦 Manganese Ore



- Manganese Ore Product Presentation

產品介紹

Meng is a chemical element with the chemical symbol Mn, atomic number 25, and an atomic weight of 54.938045 u. Manganese does not exist as a pure element in formaldehyde but as a mineral formed with iron. It is an important welding metal used in industrial alloys, especially stainless steel.

猛是一種化學元素，化學符號為 Mn，原子序數為 25，原子量為 54.938045 u。錳在甲醛中並不會以純元素單質的形式存在，而是以與鐵所形成的礦物質形式存在。是重要的工業用合金所使用的焊接金屬，特別是用於不銹鋼的材料。

- Commodity Approach



產品用途

In the metallurgical industry, it is used to make special steel and ferromanganese alloy is used as a desulfurizer and oxygen scavenger in steel production.

In addition, manganese is also used as alloys, batteries, etc. Manganese dioxide (MnO_2) Used as a catalyst and brown pigment, potassium permanganate ($KMnO_4$) Used as oxidant and disinfectant.

Treating stainless steel with manganese phosphate can prevent rust and corrosion. In industry, manganese ions with different oxidation states are used as dyes of different colors. Permanganates containing alkali metals or alkaline earth ions are strong oxidants. In carbon-zinc batteries and alkaline batteries, manganese dioxide is used as the cathode. In biology, manganese ions can serve as cofactors in a variety of enzymes.

Manganese enzyme is very important for detoxifying superoxide radicals in tissues and removing elemental oxygen atoms. Manganese also plays a role in the oxygen-releasing complex of photosynthetic plants. Although it is currently known that all organic life forms require trace amounts of



manganese, excessive amounts can become neurotoxins. In particular, excessive inhalation can lead to manganese poisoning, sometimes causing irreversible neurological damage.

冶金工業中用以製造特種鋼，在鋼鐵生產上用錳鐵合金作為去硫劑和去氧劑。

此外錳也用作合金，電池等。二氧化錳 (MnO_2) 用作催化劑和棕色顏料，高錳酸鉀 ($KMnO_4$) 用作氧化劑及消毒劑。

在不鏽鋼上用磷酸錳處理可以防鏽及防蝕。工業上會使用不同氧化態的錳離子當作不同顏色的染料。含有鹼金屬或鹼土族離子的過錳酸鹽類是強氧化劑。在碳鋅電池及鹼性電池中，二氧化錳會被當作陰極使用。

在生物學中，錳離子可在多種的酵素中擔任輔因子的角色。錳酵素對組織中超氧自由基的解毒，清除元素態氧原子非常重要。錳也會在光合植物的氧釋放複合體中作用。雖然目前已知所有的有機生命體皆需要微量的錳，但其過量卻會變成神經毒素。尤其過度吸入可以導致錳中毒，有時會造成不可逆的神經危害。

• Specification

產品規格

Physical Specifications: Typically 100% Manganese Ore to be delivered



shall be sized between 6 mm to 100 mm.

Moisture Content: Free moisture content loss at 105 degrees Centigrade

shall be a maximum of 8%.

(On Dry Basis) Guaranteed

(% by weight) Rejection

物理規格：通常交付的 100% 錳礦石尺寸應在 6 毫米至 100 毫米之間。

水分含量：105°C時自由水分損失最大為 8%。

(乾基) 保證

(重量%) 剔除率

Chemical Composition:

Parameter	Specification	Parameter	Specification
Manganese Ore(Mn)	46.00%	(MnTotal) Rej	below 43%
Total Iron (Fe)	1.5% - 2.50% max	Aluminium (Al ₂ O ₃)	0.9% - 2.00% max
Magnesium (MgO)	0.06% - 0.50% max	Phosphorus (P)	0.05% - 0.09% max
Sulphur (S)	0.05% - 0.09% max	(TiO ₂)	0.05% - 0.50% max

- Packing of Products

產品包裝

Loose Cargo

- Leading Exporter



主要出口國

The world is rich in manganese ore resources. The manganese ore reserves that can be developed and have commercial value are about 9 to 1 billion tons. South Africa accounts for about 30% of the world's manganese reserves. Internationally, traded manganese ore is usually divided into mainstream and non-mainstream manganese ore.

Mainstream products generally refer to manganese ore with higher manganese content and from countries and regions with strong monopolies, such as South Africa, Australia, Brazil, Gabon, etc. Non-mainstream manganese ore generally comes from Myanmar, Indonesia, India, the Philippines, Namibia, Morocco and other countries.

全球錳礦資源豐富，可供開發並具有商業價值的錳礦儲量約為 9 至 10 億噸，南非約占世界錳儲量的 30%。國際上通常將貿易錳礦分為主流和非主流錳礦，主流產品一般是指含錳量較高、來自壟斷性較強的國家和地區的錳礦，如南非、澳大利亞、巴西、加蓬等。非主流錳礦一般來自緬甸、印尼、印度、菲律賓、納米比亞、摩洛哥等國家。