Regd. Off. : Plot No. 906/13, Near Ganesh Anand Chokdi, G.I.D.C.,
Panoli- 394 116. Tal: Ankleshwar, Dist. Bharuch (Gujarat) INDIA.
Telefax: +91 2646 272013 email: info@pushpajshah.com
Web: www.pushpajshah.com

Chelated Micronutrients

We, are the manufacturer of Chelated Micronutrients, having manufacturing facility at GIDC Ankleshwar Gujarat. We supply chelated micronutrients to many reputed multinational agrochemical companies. We are license holder from "FCO" for manufacturing micronutrients for agriculture use. Our products are well tested as per Government norms before packing.

Name	Picture	Parameters	Analysis
Zinc EDTA (Zn)		Appearance	White free flowing Powder
		% Zinc	12 % Min
		pH of 1% Solution	6-7
Ferrous EDTA (Fe)		Appearance	Brownish pink powder
		% Ferrous	9.5 % Min
		pH of 1% Solution	6-7
Ferric EDTA (Fe)		Appearance	Light yellow crystalline Powder
		% Ferric	12% Min
		pH of 1% Solution	5.5-6.5
Magnesium EDTA (Mg)		Appearance	White free flowing powder
		% Magnesium	6 % Min
		pH of 1% Solution	6-7
Manganese EDTA (Mn)		Appearance	Off white free flowing powder
		% Manganese	12% Min
		pH of 1% Solution	6-7
Copper EDTA (Cu)		Appearance	Sky blue free flowing powder
		% of Copper	12 % Min
		pH of 1% solution	6-7
Calcium EDTA (Ca)		Appearance	White free flowing powder
		% of Calcium	9 % Min
		pH of 1% solution	6-7

Solubility: Soluble in Water; Availability: 25 kg HDPE Bags

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What are chelated micronutrients?

Chelated micronutrients are widely used in agriculture and are strongly promoted by the fertilizer industry. In fertilizer technology, it refers to inorganic nutrients that are enclosed by an organic molecule.

The EDTA surrounds the inorganic iron and forms weak bonds with it, effectively giving the nutrient an organic coating. A chelate is also called a “complex” in other areas of chemistry but this term is not usually used in the fertilizer industry.

Chelates are useful for micronutrients applied to alkaline soils. Iron, manganese, zinc and copper react with the ions found at high pH to form insoluble substances. As a result, the nutrients are made unavailable to plants. Applying nutrients such as Fe, Mn, Zn, and Cu directly to the soil is inefficient because in soil solution they are present as positively charged metal ions and will readily react with oxygen and/or negatively charged hydroxide ions (OH^-). If they react with oxygen or hydroxide ions, they form new compounds that are not bioavailable to plants. Both oxygen and hydroxide ions are abundant in soil and soilless growth media. The ligand can protect the micronutrient from oxidization or precipitation
The organic coating in the chelate prevents these reactions from occurring in the soil. The plant roots take up the chelated nutrient and the chelate releases the nutrient within the plant.

Chelated nutrients are also useful for foliar application. Plant leaves have a waxy coating that prevents them from drying. The wax repels water and inorganic substances making it difficult for inorganic nutrients to penetrate into the leaf. However, organic molecules can penetrate the wax.

The organic coating around the chelated nutrient allows it to penetrate through the wax into the leaf. Once in the leaf, the chelate releases the nutrient so that it can be used by the plant.

The bond between the organic chemical and the inorganic nutrient must be strong enough to protect the nutrient, but must be weak enough to release the nutrient once it gets into the plant. Also, the chelating agent must not be harmful to plants.

Not all nutrients can be chelated. Iron, zinc, copper, manganese, calcium and magnesium can be chelated, the other nutrients cannot.