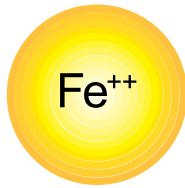




Chelate Trace Element Nutrition

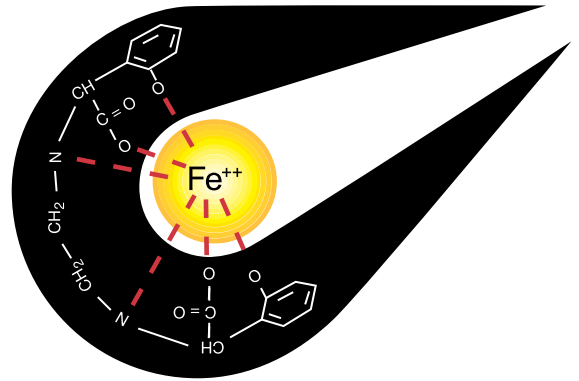
Plant Available - Efficient - Economical

UNCHELATED NUTRIENTS



- Metallic micronutrients such as Iron, Zinc, Copper and Manganese carry positive charge, see Fe iron example above.
- Typical forms of these micronutrients are sulphates, oxides, chlorides and others.
- The micronutrients are unprotected from forming insoluble precipitations with other nutrients such as phosphates and carbonates.

CHELATED NUTRIENTS



- Metallic micronutrient is "wrapped" in a chelating chemical that is negatively charged. This protects the nutrient from becoming "fixed" or "unavailable" in the soil or plant.
- Plants can absorb this chelated nutrient through their roots or leaves and easily breakdown the chelate to use the micronutrient.

ADVANTAGES OF CHELATED NUTRIENTS

- ✓ Excellent agrochemical compatibility.
- ✓ Remains available in the soil for root uptake.
- ✓ Low rates of application.
- ✓ Highly mobile.
- ✓ Highly soluble microgranule formulation, easy to use.

MAXIMUM SOLUBILITY



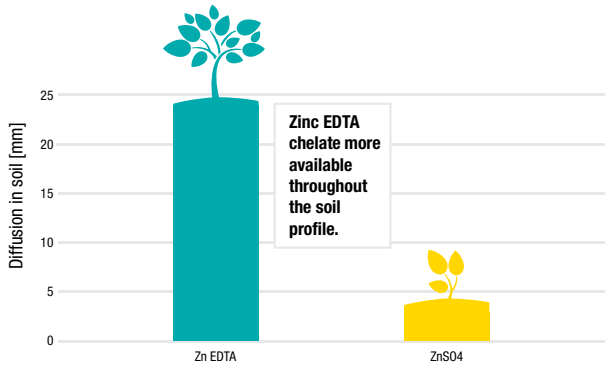
What does EDTA mean?

There are many types of chelates used in agriculture, medicine and industry. The most common in agriculture is an organic acid, **E**thylene **D**iamine **T**etra **A**cetic acid, EDTA.



Chelate Trace Element Nutrition

Diffusion of different Zn sources in sandy loam soils

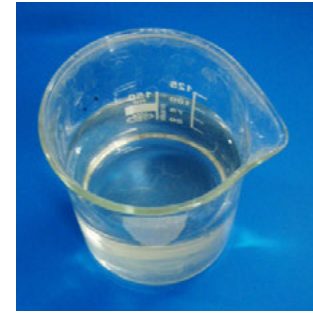


MAP fertilizer with Zinc Sulphate (ZnSO₄)



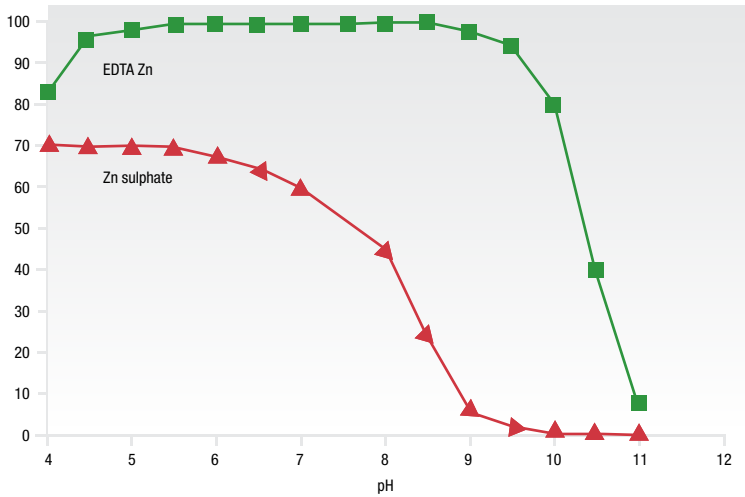
After 10 minutes, insoluble precipitation.

MAP fertilizer with Zinc EDTA chelate



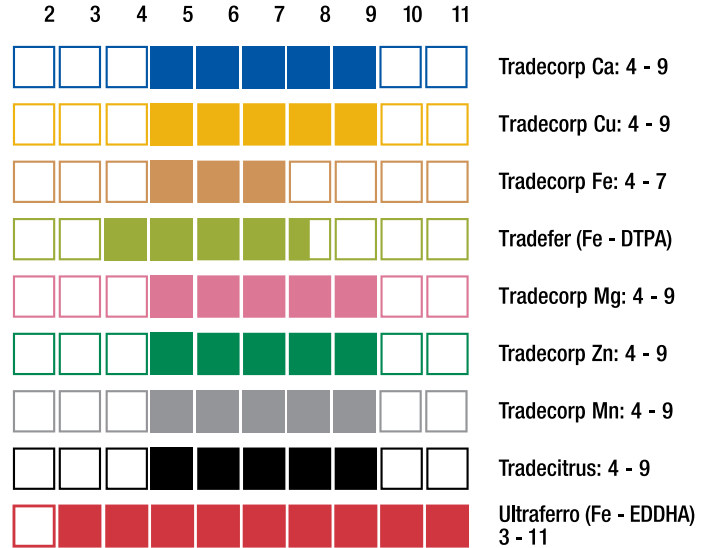
After 10 minutes, no precipitation.

Zn in soil solution



Zn EDTA chelate more available than standard zinc sulphate in all types of soil pH.

Optimum pH Stability Range



Chemical EDTA Mixture not Physical EDTA Mixture

The TradeCorp AZ mixes are made as a chemical mixture, all liquid chemicals are combined in the factory before drying to ensure a granule with homogenous nutrient content. This is superior to products that are made as a physical mixture of dry powders.

OTHER
Physical Mixture



OTHER
Differing granule contents

TRADECORP
Chemical Mixture



TRADECORP
Homogenous granule

TradeCorp AZ Chelate Range Summary

| Contents | Mg-EDTA | Fe-EDTA | Fe-EDDTA | Mn-EDTA | Zn-EDTA | Cu-EDTA | B | Mo | Co-EDTA | Aminos |
|------------------------|---------|---------|----------|---------|---------|---------|------|------|---------|--------|
| TradeCorp AZ II | | 5.0 | | 3.50 | 2.48 | 1.0 | 0.65 | 0.30 | | |
| TradeCorp AZ Fresco | 0.72 | 4.0 | | 3.0 | 4.0 | 0.6 | 1.50 | 0.05 | | |
| TradeCorp Bentley Plus | | 5.5 | 0.5 | 1.0 | 1.4 | 1.0 | 1.4 | 0.2 | 0.015 | |
| TradeCorp AZ Plus | | 6.0 | | 2.5 | 1.2 | 0.6 | 0.5 | 0.4 | 0.02 | 2.0 |