

Trace Elements EDTA-CHELATES SELECT 13

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## Trace Elements EDTA CHELATES – SELECT 13

MENAFERT SELECT 13 is worldwide the most common product to prevent or cure iron deficiency. It is used for fertigation in soil with modest pH levels or as a foliar fertilizer. The solubility of the standard products in the market is around 60 to 90 g/L. Additionally, most of them contain sodium.

Our new MENAFERT SELECT 13 is much more soluble up to 600 g/L and is free of sodium. This breakthrough has been developed in our lab and proven to be stable, effective and plant safe.

EDTA, short for ethylenediaminetetraacetic acid, is a chelate which protects nutrients against precipitation in a moderate pH-range (pH 4 - 6.5). It has a similar pH-range to DTPA and the biodegradable IDHA chelate. The stability constant of EDTA is moderate, though slightly less than the stability constant of DTPA chelate.

Mainly used for nourishing plants in fertigation systems, and as an ingredient for NPKs. EDTA chelates will not injure leaf tissue, which makes the product is also ideal for foliar spraying.

The MENAFERT EDTA chelates are produced using a unique patented micro-granulation process. This method guarantees a strawberry-shaped microgranule that is free flowing, dust-free and caking-free, and easily soluble.

In addition to single-element EDTA chelates, MENAFERT International also offers physical mixes (blends) or compounds (chemical mixes). For physical mixes, macro-nutrients and/or additives like amino acids and humic acids can be added. The compounds consist of different chelated or non-chelated trace elements. The end product has the same typical strawberry-shaped micro-granule, unique in the industry. Product characteristics

- Increased solubility of 600 g/L
- Sodium-free
- Protection of the micronutrient against precipitation in a moderate pH-range (pH 4 6.5)
- An unique porous micro-granule: dust free, no caking and easily soluble. Yellow / greenish.
- For fertigation, foliar and as raw material in NPK's
- Compatible with most water-soluble fertilizers

## Dosing instructions | Fertigation

| Kg / 1.000   water | Iron (Fe) content       |          |  |
|--------------------|-------------------------|----------|--|
|                    | g / 1.000   water   ppm | mmol / I |  |
| 0.1                | 13                      | 0.23     |  |
| 0.5                | 65                      | 1.15     |  |
| 1.0                | 130                     | 2.30     |  |

## Dosing instruction | Fertigation

| Сгор                  | Dosage in<br>kg/ha | Dosage in g/tree | Application stage  |
|-----------------------|--------------------|------------------|--|
| Strawberry            | 2 - 4 kg/ha        |                  | 3 applications:<br>- just before blooming (white bud-stage)<br>- at fruit growth<br>- after harvest                                  |
| Banana                | 30 - 40 kg/ha      | 17 -22 g/unit    | 3 applications:<br>- 1x: establishment stage<br>- 2x: during intensive vegetative growth   |
| Stone Fruit           | 2 - 15 kg/ha       | 1 - 15 g/tree    | 3 applications:<br>- just after fruit setting<br>- during intensive vegetative growth<br>- after harvest                             |
| Citrus                | 20 - 30 kg/ha      | 40 -60 g/tree    | <ul> <li>3 - 5 applications:</li> <li>just after flowering</li> <li>at beginning of fruit coloring</li> <li>after harvest</li> </ul> |
| Vegetables<br>Flowers | 10 - 20 kg/ha      |                  | 2 - 3 applications,<br>- 4-6 leave stage<br>- during intensive growth  |

Product Leaflet

## Dosing instruction | Foliar

| Сгор  | Dosage in<br>kg/ha | Dosage in l/ha    | Application stage   |
|---|--------------------|-------------------|---|
| Agricultural crops<br>(e.g. cereals, rape,<br>sugar beet, potatoes) | 0.6-0.9 kg/ha      | 200 - 300 l water | 2 - 3 applications, as of the first symptoms of chlorosis |
| Fruits general  |                    |                   |   |
| Preventive treatment  | 0.3-0.4 kg/ha      | 500-1.000   water | 1 application, after blooming                             |
| Curative treatment  | 0.3-0.4 kg/ha      | 500-1.000 l water | 2 - 3 applications, as of the first symptoms of chlorosis |
| Vegetables  |                    |                   |   |
| Preventive treatment  | 0.2-0.3 kg/ha      | 500-1.000   water | 1 application, at the start of the generative stage       |
| Curative treatment  | 0.3-0.6 kg/ha      | 500-1.000 l water | 2 applications, as of the first symptoms of chlorosis     |

The pH in the tank should be above 4.

In the case of foliar feeding as part of a spray-mix, testing the intended spray-mix on a small area is recommended prior to commercial treatment. The mentioned indicated dosages and application stages are subject to soil and climatic conditions, influence of previous crops and other specific conditions. Exact dosages and application stages can only be given after an objective diagnostic procedure by e.g. soil, substrate and / or plant analyses.