



**MENAFERT**

Product leaflet

# **Trace Elements**

## **IDHA – CHELATES**

### **ULTRA Fe 9%**

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### Trace Elements

### ULTRA Fe 9%



IDHA is short for D,L-Aspartic acid, N-(1,2-dicarboxyethyl) tetra sodium salt complex. IDHA chelate protects the nutrients against precipitation in a moderate pH range (pH 4 - 6.4), similar to EDTA. The stability constant of IDHA is moderate, though slightly less than the stability constant of the EDTA chelate. The agronomical results of the IDHA chelate are at least comparable to those of the EDTA chelate as proven in a significant amount of agronomical trials.

This unique patented chelate is fully biodegradable according to the OECD regulations (OECD 301E 78% after 28 days | OECD 302 B 89% after 28 days). This is unlike the EDTA chelates. Because of their biodegradability, IDHA chelates are seen as the most environmentally friendly chelates, supporting sustainable agriculture for future generations.

Mainly used for foliar and as raw material for foliar applied NPK's. IDHA chelates will not injure leaf tissue, which makes the product is ideal for foliar spraying.

The MENAFERT IDHA 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 IDHA 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.

For a complete overview of our products, please visit our website [www.menafert.com](http://www.menafert.com)

## Product characteristics

- Protection of the micronutrient against precipitation in a moderate pH-range (pH 4 - 6.5)
- Fully biodegradable
- An unique porous micro granule: dust free, no caking and easily soluble. White / yellowish
- For foliar and as raw material for foliar applied NPK's
- For fertigation, it is a possible alternative to EDTA chelates
- Compatible with most water-soluble fertilizers

## Dosing instruction | Fertigation

Crop	Application stage	Dosage	Dosage
Strawberry	3 applications: - just before blooming (white bud-stage) - at fruit growth - after harvest	3 – 6 kg/ha	
Banana	3 applications: - 1x: establishment stage - 2x: during intensive vegetative growth	45 – 60 kg / ha	25 – 30 g / unit
Stone Fruit	3 applications: - just after fruit setting - during intensive vegetative growth - after harvest	3 – 25 kg / ha	1.5 – 20 g / tree
Citrus	3 applications: - at fruit settings - at fruit filling - after harvest	30 – 45 kg / ha	60 – 90 g / tree
Vegetables flowers	3 applications, - 4-6 leave stage - during intensive growth	15 – 30 kg / ha	

## Dosing instructions | Foliar

Crop	Application stage	Dosage	Amount of water in l/ha
Agricultural crops (e.g. cereals, rape potatoes, sugar beet)	2 – 3 applications, as of the first symptoms of chlorosis	1.0–1.5 kg / ha	200–300 l water
Fruits general	1 application, after blooming	0.5–0.6 kg / ha	500–1.000 l water
Preventive treatment	2 – 3 applications, as of the first symptoms of chlorosis	0.5–0.6 kg / ha	500 –1.000 l water
Curative treatment			
Vegetables	1 application, at the start of The generative stage	0.3–0.5 kg / ha	500–1.000 l water
Preventive treatment	2 applications, as of the first symptoms of chlorosis	0.5–1.0 kg / ha	500–1.000 l water
Curative treatment			

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. When mixed with other micro elements, use chelated micro elements rather than sulphate forms.