PRODUCT INFO & DATASHEET

CHELASTAR IRON EDDHA CHELATES

CHELASTAR STANDARD IRON-EDDHA 6%

(3% ortho-ortho)

Revised 07/2020

1. INTRODUCTION

* The CHELASTAR EDDHA chelates are available in different percentages of the ortho-ortho isomere. Our complete line of EDDHA-chelates includes:

- CHELASTAR Premium Iron-EDDHA 6% with 4.8% ortho-ortho
- CHELASTAR Superior Iron-EDDHA 6% with 4.0% ortho-ortho
- CHELASTAR Optimum Iron-EDDHA 6% with 3.5% ortho-ortho
- CHELASTAR Standard Iron-EDDHA 6% with 3% ortho-ortho

* What is EDDHA?

EDDHA, short for ethylenediamine-N,N'-bis (2-hydroxyphenylacetic acid), is a chelate which protects nutrients against precipitation in the highest pH-range (pH 4 – 9). This makes the EDDHA-chelates suitable for alkaline and calcareous soils as well as soils containing high levels of carbonate.

It is mainly used for fertigation in open fields and soil injection. When diluted it is suitable for all irrigation systems: drip, micro and any localised injection system. CHELASTAR Standard Iron-EDDHA 6% can be used at any stage of the vegetative cycle. It is also used in glasshouse hydroponic systems, although the pH never comes close to pH9. EDDHA boosts iron availability, which is particularly interesting when root activity is low due to, for example, a low root temperature in early spring when there is bright sunshine on the leaves, a relatively high iron demand and limited root activity due low water temperature.

2. PRODUCT SPECIFICATIONS

a) Description

Brand name	: CHELASTAR Standard Iron-EDDHA 6% with 3% ortho-ortho
Chemical formula	: $C_{18}H_{16}N_2O_6FeNa$
Chemical name	: Acetic acid, oxo-, sodium salt with ethylenediamine and phenol, iron sodium salts
Appearance	: black/red microgranules

b) Chemical composition

Iron (Fe), total	: 6% +/-0.4%w/w
Iron (Fe), chelated by (o-o)-EDDHA	: 3% +/-0.4%w/w

c) Physical properties

Density	: 0.55 +/-0.1 g/cm^3
pH	: 8.5 +/-1 (in 1% solution)
Electric conductivity (EC)	: 0.45 +/-0.05 mS/cm (in 0.1% solution)
Solubility in water	: 60 g/l
Percentage of nutrients chelated	: 100%

d) Heavy metals

Arsenic (As)	: < 0.5 mg/kg
Cadmium (Cd)	: < 5 mg/kg
Chrome (Cr)	: < 20 mg/kg
Mercury (Hg)	: < 0.5 mg/kg
Lead (Pb)	: < 5 mg/kg
Chloride (Cl)	: < 1 %
Sodium (Na)	: < 10 %

3. PRODUCT CHARACTERISTICS

- Percentage of the ortho-ortho isomere: 3.0% 0-0
- Easy and rapid solubility in water.
- Protection of the micro-nutrient against precipitation in a high pH-range (pH 4-9).

Any information in this publication is believed to be accurate and is given in good faith, but is for the customer to satisfy himself of the suitability for his own particular purpose.
No representation, warranty or guarantee is made to its accuracy, reliability or completeness.

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SICO FERTILISERS EVERY TIME THE right SOLUTION

- Suitable for fertigation in open field as well as for soil injection. Also suitable for fertigation in high tech, soil-less cultures.
- Compatible with most water-soluble fertilisers.

4. RECOMMENDED APPLICATIONS & DOSING INSTRUCTIONS

a) Soil application: fertigation or soil injection

Crop	Total dosage in kg/ha	Total dosage in g/tree	Application date
Citrus Young trees Adult trees		 10 – 50 g 50 – 120 g	2 – 3 applications: - 1x: vegetative development - 1x: spring application - 1x: autumn application
Fruit trees Young trees Adult trees		 20 – 35 g 40 – 100 g	2 applications: at the very beginning of the vegetative development.
Vineyards Young grapes Adult grapes Table grapes		 5 – 10 g 10 – 20 g 20 – 40 g	Before bud opening or at first symptoms of deficiency.
Vegetables	15 – 25 kg/ha		2 applications: - 1x: 4-6 weeks after planting - 1x: before flower induction
Flowers	20 – 70 kg/ha		2 applications: - 1x: in spring period - 1x: at first symptoms of deficiency

Th pH in the tank should be above 3.

b) Fertigation

g/1000 l water	Iron (Fe) content	
	g/1000 l water/ppm	mmol/l
100	9	0.17
500	45	0.83
1000	90	1.65
1500	135	2.48

The mentioned indicated dosages and application stages are subject to soil and climatic conditions, influence of previous crops and other specific conditions. Exact dosage and application stages can only be given after an objective diagnostic procedure by e.g. soil, substrate and/or plant analyses.

5. PACKINGS

Available in packings of 1, 5 and 20 kgs.

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