PRODUCT INFO & DATASHEET

CHELASTAR SINGLE ELEMENT CHELATES

CHELASTAR IRON 13% EDTA

PREMIUM MICROGRANULAR IRON CHELATE

Revised 06/2020

1. INTRODUCTION

* The CHELASTAR 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
As probably Belgium's main specialist in chelated micronutrients, SAP International Corporation offers also a line of trace element mixes, next to its line of single element micronutrients. This line of products contains a set of chemical mixtures of trace elements (compounds) and of physical mixtures of trace elements (blends).
Where required macronutrients and/or additives as amino acids and humic acids can be added to our blends of trace elements. Mainly used for nourishing plants in fertigation systems and as an ingredient for NPK's. EDTA chelates will not injure leaf tissue, which makes the product also ideal for foliar spraying.

* **What is EDTA ?**

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.

2. PRODUCT SPECIFICATIONS

a) Description

Brand name	: CHELASTAR Iron 13% EDTA
Chemical formula	: $C_{10}H_{12}N_2O_8NaFe$
Chemical name	: Ethylenediaminetetraacetic acid, ferric-sodium complex
Appearance	: light brown microgranules

b) Chemical composition

Iron (Fe), EDTA chelated	: 13%+/-0.4%w/w

c) Physical properties

Density	: 0.8 +/-0.1 g/cm^3
pH	: 6 +/-1 (in 1% solution) // 6.5 +/-1 (in 0.1% solution)
Electric conductivity (EC)	: 2.80 +/-0.2 mS/cm (in 1% solution) // 0.32 +/-0.04 mS/cm (in 0.1% solution)
Solubility	: 600 g/L
Insolubles	: < 0.01 %
Percentage of nutrient chelated	: 100 %

d) Heavy metals

Cadmium (Cd)	: < 2 mg/kg
Chrome (Cr)	: < 15 mg/kg
Lead (Pb)	: < 2 mg/kg

3. PRODUCT CHARACTERISTICS

- A unique porous micro-granule: dust free, no caking and easily soluble. Yellow/greenish.
- Protection of the micro-nutrient against precipitation in a moderate pH-range (pH 4-6.5).
- For fertigation, foliar and as raw material in NPK's.
- Compatible with most water-soluble fertilisers.

4. RECOMMENDED APPLICATIONS & DOSING INSTRUCTIONS

a) Foliar applications

Crop	dosage in kg/ha	Amount of water in l/ha	Application date
Agricultural crops (eg. Cereals, potatoes, sugar beet, rape)	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 l water	1 application, after blooming

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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: Curative treatment:	 0.2 – 0.3 kg/ha 0.3 – 0.6 kg/ha	 500 – 1,000 l water 500 – 1,000 l water	1 application, at the start of the generative stage 2 applications, as of the first symptoms of chlorosis.

Th 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 dosage and application stages can only be given after an objective diagnostic procedure by e.g. soil, substrate and/or plant analyses.

b) Fertigation

kg/1000 l water	**Iron (Fe) content**	
	g/1000 l water/ppm	mmol/l
0.1	13	0.23
0.5	65	1.15
1.0	130	2.30

Crop	**Total dosage in kg/ha**	**Total dosage in g/tree**	**Application date**
Strawberry	2 – 4 kg/ha		3 applications: - just before blooming (white bud-stage) - at fruit growth - after harvest
Banana	30 – 40 kg/ha	17 – 22 g/unit	3 applications: - 1x: establishment stage - 2x: during intensive vegetative growth
Stone fruit	2 – 15 kg/ha	1 – 15 g/tree	3 applications: - just after fruit setting - during intensive vegetative growth - after harvest
Citrus	20 – 30 kg/ha	40 – 60 g/tree	3 – 5 applications: - just after flowering - at beginning of fruit colouring - after harvest
Vegetables & flowers	10 – 20 kg/ha		2-3 applications: - 4-6 leave stage - during intensive growth

5. PACKINGS

Available in packings of 1, 5, 10, 25 and 1000 kgs.

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