PRODUCT INFO & DATASHEET

CHELASTAR SINGLE ELEMENT CHELATES

CHELASTAR COPPER 15% EDTA

PREMIUM MICROGRANULAR COPPER CHELATE

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). Macronutrients and/or additives such as amino acids and humic acids can be added to our blends of trace elements where required.
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 Copper 15% EDTA
Chemical formula	: $C_{10}H_{12}N_2O_8Na_2Cu$
Chemical name	: Ethylenediaminetetraacetic acid, cupric-disodium complex
Appearance	: blue microgranules

b) Chemical composition

Copper (Cu), EDTA chelated	: 15.0%+/-0.4%

c) Physical properties

Density	: 0.70+/-0.80 g/cm^3
pH	: 6.0 – 7.0 (in 1% water solution)
Conductivity (CE)	: 3.4 mS/cm (at 20 °C in 1.0% water solution)
Water insolubles	: max. 0.05 %
Percentage of nutrient chelated	: 100 %

3. PRODUCT CHARACTERISTICS

- A unique porous micro-granule: dust free, no caking and easily soluble. Blue.
- 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
Cereals	 0.3 kg/ha 0.5 – 0.6 kg/ha	 200 – 300 l water 200 – 300 l water	2 applications : - 3 leaves stage - propagation phase
Fruits general	0.2 – 0.5 kg/ha	500 – 1,000 l water	2 applications just after blooming
Potatoes	0.3 – 0.6 kg/ha	200 – 300 l water	Three weeks after germination

SAP INTERNATIONAL CORPORATION bvba Krekelenberg 69, B-2980 Zoersel, Belgium
Tel. +32-3-309.06.51 Fax. +32-3-309.19.31 Email : info@sico.be Website : www.sico.be

PRODUCT INFO & DATASHEET

Rape	0.3 – 0.6 kg/ha	200 – 300 l water	Before blooming
Sugar beet	0.3 – 0.6 kg/ha	200 – 300 l water	Before intercrop densening
Vegetables	0.2 – 0.5 kg/ha	500 – 1,000 l water	2 applications, depending on crop

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	**Copper (Cu) content**	
	g/1000 l water/ppm	mmol/l
0.1 0.5 1.0	15 75 150	0.24 1.20 2.40

Crop	**Total dosage in kg/ha**	**Total dosage in g/tree**	**Application date**
Banana	1 - 2 kg/ha	0.6 – 1.2 g/unit	3 applications: - 1x: establishment stage - 2x: during intensive vegetative growth
Citrus	1 – 2.5 kg/ha	2 - 5 g/tree	At fruit filling stage
Stone fruit	0.1 – 0.3 kg/ha	0.08 – 0.3 g/tree	3 applications: - just after fruit setting - during intensive vegetative growth - after harvest
Strawberry	0.1 – 0.2 kg/ha		3 applications: - just before blooming (white bud-stage) - at fruit growth - after harvest
Vegetables & flowers	0.1 – 0.5 kg/ha		2-3 applications: - 4-6 leave stage - during intensive growth

Th pH in the tank should be above 4.

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

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