



**PRODUCT INFO  
& DATASHEET**

CHELASTAR SINGLE ELEMENT CHELATES

# CHELASTAR CALCIUM 14% CaO (= 10% Ca) EDTA PREMIUM MICROGRANULAR CALCIUM 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). 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 Calcium 14% EDTA  
 Chemical formula :  $C_{10}H_{12}N_2O_8Na_2Ca$   
 Chemical name : Ethylenediaminetetraacetic acid, calcium-disodium complex  
 Appearance : white microgranules

### b) Chemical composition

Calcium Oxide (CaO) : 14.0%+/-0.4%  
 Calcium (Ca) : 10.0%+/-0.4%

### c) Physical properties

Density : 0.65+/-0.1 g/cm<sup>3</sup>  
 pH : 7.0+/-1.0 (in 1.0% solution)  
           : 6.5+/-1.0 (in 0.1% solution)  
 Conductivity (CE) : 3.6 +/-0.2 mS/cm at 20 °C (in 1.0% solution)  
                       : 0.45+/-0.02 mS/cm at 20 °C (in 0.1% solution)  
 Insolubles : < 0.01 %

## 3. PRODUCT CHARACTERISTICS

- A unique porous micro-granule: dust free, no caking and easily soluble. White.
- 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	200 – 300 l water	2 applications : - 3 leaves stage - propagation phase
	0.3 – 0.6 kg/ha	200 – 300 l water	
Fruits general	0.2 – 0.4 kg/ha	200 – 300 l water	3-4 applications from the end of flowering/beginning of fruit set and during intensive plant and fruit growth.
	0.4 – 0.6 kg/ha	200 – 300 l water	
Potatoes	0.3 – 0.5 kg/ha	300 – 500 l water	Three weeks after germination
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 and flowers	0.2 – 0.4 kg/ha	400 – 600 l water	3-4 applications, depending on crop

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**SICO FERTILISERS**  
 EVERY TIME THE RIGHT SOLUTION



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	Calcium (Ca) content	
	g/1000 l water/ppm	mmol/l
0.1	10	0.25
0.5	50	1.25
1.0	100	2.50
1.5	150	3.75

Crop	Total dosage in kg/ha	Application date
Banana	0.5 – 0.7 kg/ha	3 applications: - 1x: establishment stage - 2x: during intensive vegetative growth
Citrus	0.4 – 0.6 kg/ha	3 applications: - at fruit setting - at fruit filling - after harvest
Stone fruit	0.35 – 0.5 kg/ha	3 applications: - just after fruit setting - during intensive vegetative growth - after harvest
Strawberry	0.2 – 0.3 kg/ha	3 applications: - just before blooming (white bud-stage) - at fruit growth - after harvest
Vegetables & flowers	0.3 – 0.7 kg/ha	2-3 applications: - 4-6 leave stage - during intensive growth

The pH in the tank should be above 4.

**5. PACKINGS**

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