



**PRODUCT INFO  
& DATASHEET**

## SICALNIT+MAG+ZINC nr. 2 Horticultural grade,

**13.2% N + 16.4% CaO + 5.9% MgO + 0.18% Zn + 0.022% Cu (w/w)**

**Calcium Nitrate + Magnesium Nitrate with Zinc- and Copper-IDHA**

(in blue flakes) Rapid and complete dissolution in water.

- Made in E.U. -

11/2023

### 1. INTRODUCTION

SICALNIT+MAG+ZINC nr. 2 Horticultural grade is a speciality fertiliser with high concentrations of nitrogen (N; 13.2%), calcium (CaO; 16.4%), magnesium (MgO; 5.9%), zinc (Zn; 0.18%) and copper (Cu; 0.022%). Both zinc and copper in the product are chelated with biodegradable **IDHA** chelating agent. Owing to a patented production process, SICALNIT+MAG+ZINC nr. 2 Horticultural grade is characterised by several unique properties. The solubility of the product is 2.3kg/l at 20°C and the product's rapid and complete dissolution in water makes the nutrients quickly available to plants. The fertiliser is formulated as fully water-soluble, free-flowing flakes without any impurities. As a result of relatively low hygroscopicity, there is no risk of caking. SICALNIT+MAG+ZINC nr. 2 Horticultural grade is an effective source of calcium, magnesium, zinc, copper and nitrate-nitrogen. The product is mainly recommended for foliar application, hydroponics and fertigation.

### 2. PRODUCT SPECIFICATIONS

Chemical formula :

$5(\text{Ca}(\text{NO}_3)_2) \cdot (\text{NH}_4\text{NO}_3) \cdot 10(\text{H}_2\text{O}) + \text{Mg}(\text{NO}_3)_2 \cdot 6\text{H}_2\text{O} + \text{Zn-IDHA} + \text{Cu-IDHA}$

#### CHEMICAL COMPOSITION

Nutrient		content (% w/w)
Total nitrogen	(N)	13.2 % ± 0.3% w/w
Nitric nitrogen	(N-NO <sub>3</sub> )	1.2.8 % ± 0.3% w/w
Ammoniacal nitrogen	(N-NH <sub>4</sub> )	0.4 % ± 0.1% w/w
Calcium oxide	(CaO)	16.4 % ± 0.5% w/w
Magnesium oxide	(MgO)	5.9 % ± 0.3% w/w
Copper	(Cu)	0.02 % chelated by IDHA ± 0.004% w/w
Zinc	(Zn)	0.18 % chelated by IDHA ± 0.03% w/w



#### PHYSICAL PROPERTIES

Density	0.9 ± 0.05 g/cm <sup>3</sup>
pH	6.5 ± 0.5 (in 10% solution)
EC	1.25 ± 0.2mS/cm (in 0.1% solution)
	(= Electric conductivity)
Solubility	2200 g/L
Insolubles	< 0.01 %

#### HEAVY METALS

Arsenic (As) < 2 mg/kg - Chrome (Cr) < 2 mg/kg - Mercury (Hg) < 0.01 mg/kg

### 3. SICALNIT+MAG+ZINC nr. 2

a) **CHARACTERISTICS & PRODUCT INFO** : SICALNIT+MAG+ZINC nr. 2 Horticultural grade ensures quick and effective fertilisation of plants with macro-, secondary- and micro-nutrients. Nitrogen is the main building block of proteins; it therefore plays a crucial role in plants' vegetative growth and impacts yield productivity.

The **nitrate** (NO<sub>3</sub><sup>-</sup>) form of nitrogen in this product ensures its fast uptake by plants, resulting in quick deficiency correction.

**Calcium** is a structural component of cell walls. Its deficiency reduces the mechanical strength of plants and their resistance to pests and diseases, especially at the post-harvest stage.

**Magnesium** is a central component of the chlorophyll molecule; it is therefore essential for optimal photosynthesis. It also enhances the catalytic activity of many enzymes by establishing a precise geometry between the enzyme and its substrate.

**Zinc** is present in a large variety of enzymes and contributes to maintaining their structural stability. It is involved in a number of important functions in DNA and RNA metabolism, cell division and protein synthesis. It is crucial in the metabolism of the auxin indole-acetic acid (IAA), which enhances the apical growth of plants.

**Copper** plays an important role in photosynthesis, respiration, carbon and nitrogen metabolism, and protection against oxidative stresses.

#### b) ADVANTAGES

- is instrumental in the quick correction of calcium, magnesium, zinc and copper deficiencies and eliminates the physiological diseases they cause.
- it contributes to firmness and uniform ripening in fruits and vegetables
- it also extends their storage capacity and durability during transportation.
- The high concentration of nutrients in this fertiliser meets the needs of even the most demanding plants.
- It is recommended for preventive and corrective fertilisation of all crops

c) **OUTSTANDING QUALITY** : a mixture of various EC fertilisers / flakes / IDHA chelated / 100% chelation of micronutrients / low hygroscopicity / fast dissolution and complete solubility / outstanding quality / increased yields and improved yield quality, especially in fruits' post-harvest life.

### 4. PACKINGS

In 25 kg white plastic bags with label on 20 pallets of 1050 kg, 21 MT/20ft fcl OR in 1000 kg big bags with label, 20 MT/20ft fcl.