



**PRODUCT INFO
& DATASHEET**

SICALNIT-FG*
Fertigation grade Calcium Nitrate
15.5% N + 26.3% CaO (white granules)
E.C. fertiliser – Made in E.U.

Updated 03/2023

1/ INTRODUCTION & PRODUCT DESCRIPTION

SICALNIT-FG Fertigation grade Calcium Nitrate is a completely soluble Calcium fertiliser. This product has a limited caking sensitivity and is recommended as of early spring until fruit setting.

Chemical name: Double salt of calcium nitrate and ammonium nitrate

Chemical formula: $5\text{Ca}(\text{NO}_3)_2 \cdot \text{xNH}_4\text{NO}_3 \cdot 10\text{H}_2\text{O}$

* **See also our SICALNIT-EXCEL-HG horticultural grade Calcium Nitrate** which is a superior fully water soluble grade for fertigation, foliar drip, hydroponics and horticulture.

2/ ADVANTAGES

- Developed for spreading in open field crops.
- Easy to handle, dissolve and apply
- Improves fruit quality (less sensitive to bitter pit and blossom end rot) and shelf-life
- The high level of Calcium improves the strength of cell walls.
- The presence of Nitrogen has a positive effect on the uptake of Calcium in the plant.

3/ PRODUCT SPECIFICATION & COMPOSITION (w/w)

* Typical analysis and composition

Total Nitrogen	15.5 % +/- 2% w/w
Nitric-N (N-NO_3)	14.3 % +/- 2% w/w
Ammoniacal-N (N-NH_4)	1.2 % +/- 0.3% w/w (< 1.5% w/w)
Calcium Oxide (CaO)	26.3 % +/- 2% w/w
Calcium (Ca)	18.8% +/- 2% w/w

Heavy metals

Arsenic (As)	< 10 mg/kg
Cadmium (Cd)	< 1 mg/kg
Chrome (Cr)	< 50 mg/kg
Mercury (Hg)	< 1 mg/kg
Lead (Pb)	< 10 mg/kg
Nickel (Ni)	< 2.50 mg/kg
Chrome (Cr VI)	< 0.10 mg/kg

Trace elements

Copper (Cu)	< 2.50 mg/kg
Zinc (Zn)	< 2.50 mg/kg

* Physical properties

Density	1.1 +/- 0.2 g/cm
pH	6.7 +/- 0.5 (in 1% solution // 6 +/- 1 (in 10% solution)
Electric conductivity (EC)	1.3 mS/cm (in 0.1% solution)
Solubility	1288 g/L
Insolubles	< 0.3%
Granulometry	2-5 mm > 90%
	< 1 mm < 3%
	> 10 mm < 0%

* Compatibility

Compatible with other fertilisers, with the exception of Sulphate or Phosphate fertilisers. Therefore a separate tank is needed or fertilisers should be applied at different times.

4/ PRODUCT CHARACTERISTICS

- white granules
- low in heavy metals
- low in sodium and chloride
- production process certified according to ISO 9001:2009

5/ RECOMMENDED APPLICATIONS & DOSING INSTRUCTIONS (DRY APPLICATION)

* Application

Calcium Nitrate is a typical fertiliser with a lasting action. It affects favourably the more acid soils, as the calcium from the fertiliser moderates the impact of the soil acidity. It is convenient especially for a regenerative fertilisation of winter crops, for late (qualitative) additional fertilisation of cereals, for additional fertilisation of outspent clover growths, for additional fertilisation of sugar beet, mangel, poppy, maize, green fodder mixtures as well as for an operative elimination of calcium deficit in the nutrition of plants.

* Dosage for fertigation

Crop	Application date	Min. kg/ha per season	Max. kg/ha per season
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Banana	- As of plant establishment - Until fruit filling	200	500
Citrus	- Spring application - Winter application	200	600
Fruit bearing vegetables	- As of 4 weeks after planting - Until fruit setting	150	400
Fruit trees (adult)	- As of flowering - Until fruit filling	200	500
Potato	- As of tuber initiation - Until tuber ripening	100	300
Table grape	- As of leaf bud opening - Until vegetative growth	100	300
Vineyards	- As of leaf bud opening - Until vegetative growth	100	300

The mentioned indicated doses and application stages are given as a guideline. Exact dosages, concentration and application stage are subject to local conditions, use of other fertilisers and can only be given after an objective diagnosis.

* Orientation fertiliser doses

Growth	kg/ha
Spring barley	250-400
Spring wheat	350-450
Root crops	500-700
Root vegetables, Cabbages	180-360
Fruit vegetables	180-240
Bulb and leaf vegetables	max. 180
Early potatoes	max. 180
Fabaceous crops	max. 140
Fruit trees	180-360
Strawberries	max. 360
Grapevine	50-100
Greenlands	500-900

The mentioned doses represent orientation needs of nutrients. For particular crops, the doses as well as the possible dividing of them with the utilisation of valid directions, considering the fertilisation with farm manures and the influence of the previous crop or the objective diagnostic procedures (eg. analyses of soil and plants), are to be specified more accurately.

6/ SAFETY PRECAUTIONS

Calcium Nitrate can endanger the health, especially when ingested, when it comes into contact with eyes or mucous membranes and at a repeated contact with the skin. The fertiliser dust irritates the skin, the airways and the eyes. It can cause an allergic reaction or even eczemas. When handling the fertiliser, it is necessary to use the protective equipment for protection of the skin and eyes and to avoid eating, drinking and smoking. After the work, the hands must be carefully washed and treated with a regenerative cream. Keep children and unauthorised persons from contact with the product.

7/ PACKING: Only available in 1100 kg big bags, 22 MT/20ft container or 600 kg big bags, 24 MT/truck.

8/ STORAGE

Calcium Nitrate is to be stored in stores with a leak proof surface treated floor. The fertiliser must be protected from weather influences so that a secondary pollution and wetting cannot occur. After filling the fertiliser into the store, it is advisable to cover it with a polyethylene sheet.

9/ REMARKS

SAP INTERNATIONAL CORPORATION BV offers a complete range of :

1) Calcium (Ammonium) Nitrates in different grades (AG / FG / HG) both our range produced in the E.U. and our topselling SICALNIT range, contract manufactured in China (SICALNIT EXCEL / SICALNIT-BOR / SICALNIT-BOR EXCEL / SICALNIT-BOR TROPIC / SICALNIT-MAG EXCEL) and liquid Calcium Nitrates (see SICALNIT-L, SICALNIT-L PLUS and SICALNIT-L 8.7 N produced in Belgium/E.U.).

2) Sico Specialty Calcium Formulations incl. Chelated Calcium etc.

For a complete overview of our Calcium products, please visit our website www.sico.be or ask our literature.

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