



PRODUCT INFO  
& DATASHEET

SICO ZINC FORMULATIONS

# **SICO-ZINIT**

## ZINC NITRATE SOLUTION 42% (w/w)

### LIQUID FOLIAR FERTILISER 14.5 % Zn + 6.2% N (w/w)

15/01/2018

#### **1. PRODUCT SPECIFICATIONS**

##### **a) Description**

Brand name	: SICO-ZINIT Zinc Nitrate 42% liquid
Chemical formula	: $Zn(NO_3)_2$
Chemical name	: Zinc Nitrate solution
Appearance	: colourless / slightly yellowish, liquid

##### **b) Chemical composition**

Zinc Nitrate $Zn(NO_3)_2$	: 42% ± 0.4% w/w	/	60% ± 0.4% w/v
Zinc (Zn)	: 14.5% ± 0.4% w/w	/	21% ± 0.4% w/v
Total Nitrogen (N)	: 6.2% ± 0.4% w/w	/	9% ± 0.4% w/v
Nitric Nitrogen (N- $NO_3$ )	: 6.2% ± 0.4% w/w	/	9% ± 0.4% w/v
Cu	: < 10 ppm		
Cd	: < 5 ppm		
Pb	: < 120 ppm		
Fe	: < 1 ppm		

##### **c) Physical properties**

Density	: 1.45 ± 0.02 kg/l
pH	: 2.0 ± 1.0

#### **2. PRODUCT CHARACTERISTICS**

- Liquid fertiliser for foliar use and as raw material for foliar applied liquid NPK's.
- Compatible with most water-soluble fertilisers.

#### **3. FUNCTIONS OF ZINC**

Zinc is necessary for the synthesis of tryptophan, which in turn is necessary for the formation of indole acetic acid in plants. Indole acetic acid is one of the auxins and is responsible for cell elongation and cell division. It is an essential component of several metallo-enzymes in plants (variety dehydrogenases) and is therefore indispensable for several different functions in plant metabolism. The enzyme carbonic anhydrase is specifically activated by Zinc. Zinc has a function in RNA and protein synthesis as well.

#### **4. ZINC DEFICIENCY SYMPTOMS**

Zinc-deficient leaves develop interveinal necrosis. In the early stages, the younger leaves turn yellow. Mature leaves develop pitting in their interveinal upper surfaces. Guttation (bleeding) is also prevalent. As the deficiency progresses, the above symptoms develop into an intense interveinal necrosis. The main veins remain green, however, as if the leaves were recovering from iron deficiency. In many plants and especially in trees, the leaves become very small and the internodes shorten, resulting in a rosette (circular) shape.

#### **5. PACKINGS**

Available in packings of 1, 5, 10, 20, 220 ltr and IBC.