

# CHELAL® Cu

### STRAIGHT INORGANIC MICRONUTRIENT FERTILISER

Micronutrient chelate fertiliser

Micronutrient fertiliser, 7,6 % Cu (DTPA, EDTA, HEEDTA)

7,6 % copper (Cu), as chelate (DTPA, EDTA, HEEDTA), water soluble of which chelated by EDTA, 6,0 %

pH range guaranteeing acceptable stability of the chelate: between pH=4 and pH=10

poor in chloride

To be used only where there is a recognized need. Do not exceed the application rate.

### Warning

#### ATTENTION: using this product on drupes may cause damage.

### Recommendations

Do not exceed the maximum concentration of 2 % (= 2 L CHELAL® Cu in 100 L water). Maximum concentration in greenhouse: 0.5 % (= 500 cc in 100 L water). For foliar applications avoid high temperatures and bright sunshine. Treat preferably during early morning or late evening.

## **Applications**

Consult our crop-related programs.

### Role of copper

Plants mainly absorb copper during the first part of the growth. Once absorbed, intern transport of copper between roots and upper parts is limited, creating the risk of disequilibria between plant parts.

Within the plant, copper can mainly be found (just like Fe) in the chloroplasts (60-80 %) where it protects the protein-lipoid complex of the chlorophyll and the chlorophyll itself from early disintegration. This stabilizing property of copper enhances – combined with cytokinin action –protein synthesis. The great affinity between copper and some specific protein causes the correlation between copper concentration and the content of these proteins within the plant to be very pronounced.

In several crops (potato, tobacco, winegrapes) a rational copper application enhances – through the function of Cu – chlorophyll building and prolongs efficiently the growth season. In this context, the link between nitrogen (N)-and copper supply is obvious, illustrating that nitrogen alone is not enough for protein building. Cu also plays an important part in building numerous enzymes and transporting them internally (lactase, phenoxydase, tyrosinase, ascorbic acidoxydase)

# Relative susceptibility to copper – deficiency

apple carrot buckwheat barley flax potato broad bean hemp citrus lily corn lupin oats serradelle onion, garlic sunflower wheat	Very susceptible	Moderately susceptible	Less susceptible
	barley broad bean citrus corn oats onion, garlic sunflower	flax hemp lily lupin serradelle	

# Symptoms of copper-deficiency

The leaves desiccate and become brittle, while curling upwards (horn-like, corkscrew-like). Meanwhile, buds stayed closed and growth ceases. In cereals, ears remain enveloped and desiccate. Grains stay small and the ear bends.

### **Characteristics**

CHELAL® Cu contains copper which is completely chelated. This copper chelate has a negative charge, inhibiting adsorption to the clay-humus-complex and thus guaranteeing complete plant availability. CHELAL® Cu can be used in foliar and soil-applications: in both cases the product will be swiftly absorbed by the plant.

#### CHELAL® Cu

- prevents empty ears.
- increases resistance to low temperatures.
- stimulates flowering and production of pollen.
- increases fruit set.
- increases photosynthesis.
- increases fertility.
- increases thousand seed weight.
- enhances chlorophyll building.

### **Precautions**

- ATTENTION: using this product on drupes may cause damage.
- wash hands thoroughly after handling; do not drink, eat or smoke during handling.
- if swallowed, seek medical assistance.
- in case of contact with eyes, rinse with plenty of clean water.
- store in a cool, dry place, out of reach of children and animals and far away from food products. Always keep the product in its original container.
- store the product at a temperature between 40°F and 90°F (= 5°C 30°C).

# **Miscibility**

CHELAL® Cu can be mixed with most liquid nitrogen fertilizers.

CHELAL® Cu is miscible with most pesticides and herbicides. Avoid mixing with oil-based products. It is advisable to conduct a miscibility test before application. In case of doubt, consult our technical service.

# Preparation of the solution

Sometimes a light sediment can appear on the bottom of the can. This sediment is soluble in water. Shake well before use. Pour CHELAL® Cu into the sprayer tank while filling with water. Continue stirring until the solution is applied.

# Warranty

The liability of the manufacturer is limited to delivery of the product in its original container in conformity with the guaranteed analysis, as indicated on this label. The manufacturer is not responsible for inappropriate or inaccurate use of the product nor for damage caused by weather conditions, soil characteristics or special sensitivity of crops and varieties. In no case shall BMS Micro-Nutrients be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the buyer. BMS Micro-Nutrients makes no warranties of merchantability of fitness for a particular purpose nor any other express or implied warranty except as stated above.

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