Kelat (Cu, Fe, Mn, Zn)

CHELATED MICROELEMENTS (EDTA / IDHA)

EC FERTILIZER

Micro-elements chelated with EDTA and IDHA

KELAT is a comprehensive range of EDTA- or IDHA-chelated single microelements designed to treat and prevent micronutrient deficiencies. Because they are chelated, they remain readily available for crop uptake, ensuring effective nutritional action even in calcareous soils with high pH levels or when using hard water.
Microelements are essential nutrients for plant physiology; they act as catalysts for numerous vital functions and are integral components of specific enzymes and coenzymes. Consequently, deficiencies lead to metabolic disturbances that impair plant growth or the functionality of specific plant organs.
Iron and manganese are constituents of various enzymes and regulate numerous biochemical processes, such as chlorophyll synthesis, photosynthesis, and cellular respiration. Zinc is involved in the synthesis of amino acids and auxins, while copper promotes protein synthesis.
The chelating agent IDHA (iminodisuccinate) is fully biodegradable, offering an alternative to traditional agricultural chelating agents (such as EDTA, DTPA, and EDDHA), which are slow to biodegrade and pose a risk of accumulation in the environment, water, and soil. Furthermore, the small size of the IDHA chelating molecule makes these formulations ideal for foliar absorption, ensuring high agronomic efficacy and safe use.

Fertilizer	Chelating agent	water soluble microelements %	chelated fraction %	total microelement %	Nr. SIAN
Kelat Cu EDTA	EDTA	15	100	15	0018910/17
Santa Fe EDTA	EDTA	13	100	13	0018909/17
Kelat Mn EDTA	EDTA	13	100	13	0018912/17
Kelat Zn EDTA	EDTA	15	100	15	0018911/17
Kelat Cu IDHA	IDHA	10	100	10	0025675/19
Kelat Fe IDHA	IDHA	9	100	9	0025676/19
Kelat Mn IDHA	IDHA	9	100	9	0025677/19
Kelat Zn IDHA	IDHA	10	100	10	0025674/19

Physicochemical properties

Fertilizer	Solubility at 20°C g/L	pH sol. 1 %	Conductivity (1 ‰) mS/cm 18^0 C	Color
Kelat Cu EDTA	1200	4,5	0,5	Blue
Santa Fe EDTA	900	4,5	0,5	Ochre yellow
Kelat Mn EDTA	800	5	0,4	Light pink
Kelat Zn EDTA	1000	5	0,4	White
Kelat Cu IDHA	650	7	0,5	Blue
Kelat Fe IDHA	730	5,5	0,7	Brown
Kelat Mn IDHA	600	5	0,6	pink
Kelat Zn IDHA	1200	7,5	0,7	White

Kelat (Cu, Fe, Mn, Zn)

CHELATED MICROELEMENTS (EDTA / IDHA)

- *Treat and prevent damage caused by micronutrient deficiencies.*
- *Contain micronutrients chelated with IDHA for superior biodegradability.*
- *Free from impurities.*
- *Highly water-soluble.*
- *Rapidly assimilated via foliage and roots.*
- *Improves the organoleptic qualities of the fruit.*
- *Produces crops of superior size and quality.*

FORMULATION
Soluble microgranules

PACKAGING
1 kg bag
5 kg bag

20 x 1 kg packs,
4 x 5 kg packs

APPLICATION
Foliar
Radical

1 kg

5 kg

MODE OF USE	***CULTURE***	***WHEN TO APPLY IT***	***DOSES***
Foliar	*Fruit, vegetable, and ornamental crops; industrial crops.*	*Distributions throughout the cycle based on identified needs*	*50 g/100 L of water for open-field use* *50 g/100 L of water for greenhouse use*
Radical	*Fruit, vegetable, and ornamental crops; industrial crops.*	*Distributions throughout the cycle based on identified needs*	*1 – 2 kg/ha*

Warnings: EDTA-chelated microelements are stable within a pH range of 4 to 11. IDHA-chelated microelements are stable within a pH range of 4 to 8. Use only where there is a recognized need. Adhere to the specified dosage rates. The product is non-combustible and stable under ordinary temperatures and pressures. Store the product in well-ventilated areas at temperatures between +5°C and +35°C.