TECHNICAL INFORMATION



Solufeed Sodium Free TEC™

A carefully formulated, balanced chelated micronutrient source without sodium for modern hydroponic systems.

Uses

Solufeed Sodium Free TEC™ is a chelated micronutrient source for growers operating advanced hydroponics systems who mix their own NPK fertilises and wish to minimise feed sodium levels.

Solufeed Sodium Free TEC™ can also replace traditional Solufeed TEC™ in all applications such as general fertiliser enrichment, fertigation and foliar feeding.

Solufeed Sodium Free TEC™ can be used in the hydroponic production of tomato, cucumber and other salad crops. It is particularly valuable in modern re-circulating systems where the build-up of sodium would be detrimental.

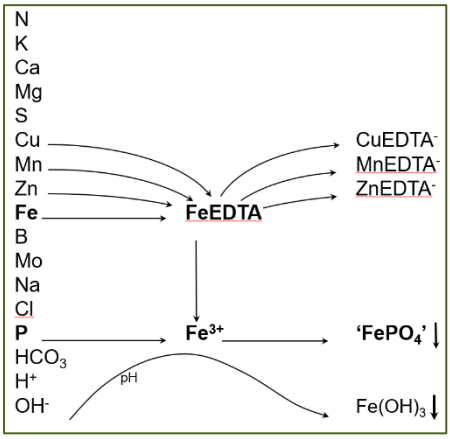
Benefits

Solufeed Sodium Free TEC™ is manufactured to ISO 9001 quality standards using only top quality raw materials and all reactive metals are ***fully chelated*** by the ammonium or potassium salt of EDTA along with soluble sodium-free salts of boron (B), and molybdenum (Mo). This ensures:

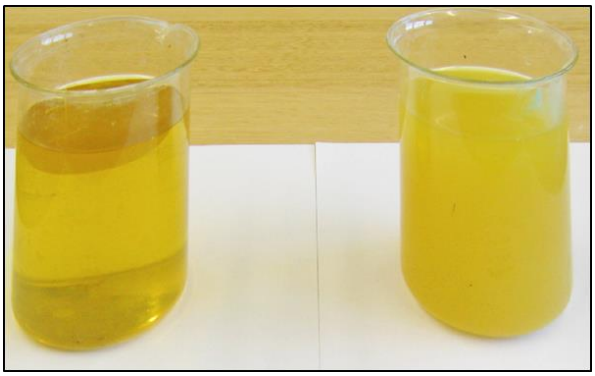
- The formulation is sodium free.
- Free-flowing, dustless and highly soluble in water. Easy to use for making up stable stock tank solutions with no sediment.
- Efficient delivery of micronutrients – up to 5 times more efficient than sulphate-based mixes.
- Quick and simple to use - only one product to source, hold in stock and measure out.
- Consistent reliable Solufeed quality and product support.
- Fully compatible with other feed constituents - prevents sludging, sedimentation, “rusty roots” and blocked feed lines.

Why “fully chelated”?

A typical nutrient solution contains over 17 elements or compounds in a state of dynamic equilibrium. This is illustrated diagrammatically below.



In traditional hydroponic/fertigation systems only the iron is supplied as a chelate (eg EDTA) while the other metallic micronutrient cations (copper, manganese and zinc) are supplied as sulphates. The laws of chemistry dictate that a certain amount of the chelated iron will be substituted by these other cations. This “preferential chelation” results in, ionic iron being released which is then free to react with phosphates and hydroxides to produce insoluble precipitates. These precipitates cause “rusty roots”, feed line blockages and reduced nutrient availability.



By contrast, Solufeed Sodium Free TEC™ is specially formulated with all the metallic micronutrients (copper (Cu), iron (Fe), manganese (Mn) and zinc (Zn)) fully chelated by EDTA. This prevents any preferential chelation, subsequent reactions and precipitate formation. The result is a clear, problem free and nutritionally efficient solution.

The photograph here shows a beaker of nutrient solution prepared with Solufeed Sodium Free TEC™ to the left compared to a similar solution prepared traditionally with sulphates. The difference is *clear*!

Chemical/physical data

EC FERTILISER

Blend of soluble spray agglomerated microgranules and crystalline powders containing.

Element		**Soluble in water (%)**	**Chelated by EDTA (% min)**
Boron	(as B)	0.92	As polyborate
Copper	(as $CuNH_4EDTA$)	0.23	0.23
Iron	(as FeKEDTA	8.4	8.4
Manganese	(as MnKEDTA)	2.00	2.00
Molybdenum	(as Mo)	0.15	As molybdate
Zinc	(as ZnKEDTA)	1.16	1.16

Heavy metals not exceeding 21 mg/kg (ppm)

pH stability range: 3 – 7 (in aqueous solution)

Appearance: Yellow/brown blended powder

Directions for use

Application rates

Continuous fertigation: 250 g Solufeed Sodium Free TEC™ per 10,000 litres of diluted feed solution.

Hydroponics: Dissolve 300 g Solufeed Sodium Free TEC™ per 100 litres stock solution and dilute according to the normal feeding programme. The micronutrient concentration in the stock tank will be as follows:

Element	Concentration (ppm)
Boron (B)	28
Copper (Cu)	7
Iron (Fe)	253
Manganese (Mn)	60
Molybdenum (Mo)	4.5
Zinc (Zn)	35

Fertiliser supplement: 100 g per 10 kg of soluble fertiliser

Foliar Application: 1 gram Solufeed Sodium Free TEC™ per litre of spray solution. Spray to run-off. Use with approved wetting agent to aid retention on foliage. Observe usual foliar application precautions.

Notes

Always ensure that the Solufeed Sodium Free TEC™ is completely dissolved.

It is important to monitor crops and adjust nutrient inputs according to crop demands.

In some situations, it may be necessary to add supplemental iron to ensure adequate levels of iron. Solufeed has several suitable, sodium free product options.

General information

Packaging: 1 kg cartons & 10 kg net polythene buckets.

Harmonised Tariff No 29224985

Technical service: For further information, assistance and access to The Solufeed Advisory Service, please contact Solufeed at the address below.

Precautions

Statutory Caution: To be used only where there is a recognised need. Do not exceed the appropriate dose rate.

Do not apply when crops are under stress from lack of moisture or major plant nutrients.

No health hazard is involved when Solufeed Sodium Free TEC™ is used as directed but it is advisable to:

Wash hands before meals and after work.

Store in original container, tightly closed, in a dry place away from children, pets, livestock and foodstuffs.

Detailed health and safety information may be found on the relevant Material Safety Data Sheet (MSDS) available on request from the address below.

Important

The information in this document has been prepared carefully and is provided in good faith. The application, use and processing of any material together with regulatory compliance is the absolute responsibility of the Buyer. All technical information or other advice provided by the Seller in any form is given without warranty to the full extent provided by law.

Please note that products may differ or be unavailable in certain territories.

Certificate No: FS 573717

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