



Technical Information

Ferrous Chelated Solution (100X)

Product Code: PL1025

Composition**

 $\begin{array}{ll} \mbox{Ingredients} & \mbox{mg/Litre} \\ \mbox{Ferrous sulphate.7H}_2\mbox{O} & 27.80 \\ \mbox{EDTA disodium salt.2H}_2\mbox{O} & 37.26 \\ \end{array}$

OTAL 0.06 gm/litre

Principle And Interpretation

Ferrous Chelated Solution (100X) is a filter sterilized stock solution. The stock contains chelated iron source as described by Steiner & Winden. Add 10ml per litre of ferrous chelated solution stock solution to the prepared medium to achieve the desired concentration..

Directions

Measure out approximately 600ml of distilled water. While stirring the water, add 10ml of ferrous chelated solution. Add desired heat stable supplements prior to autoclaving. Adjust the medium to the desired pH using 1N HCI/NaOH. Make up the final volume to 1000ml with distilled water. Sterilize the medium by autoclaving at 15 lbs or 121°C for 15 minutes. Cool the autoclaved medium to 45°C before adding the filter sterilized heat labile supplements. Dispense the desired amount of medium in sterile culture vessels.

Quality Control

Appearance: Colourless to yellow, clear solution.

Sterility: No bacterial or fungal growth is observed after 14 days of incubation, as per USP specification.

pH at 25°C : 2.5 ±0.5 of 50ml of ferrous chelated stock solution.

Cultural Response:

Cultural condition :

 $\begin{array}{lll} \cdot \mbox{ Incubation period} & : 5 \mbox{ weeks} \\ \cdot \mbox{ Relative humidity} & : 60\% \pm 2\% \\ \cdot \mbox{ Temperature} & : 22^{\circ}\mbox{C} \pm 2^{\circ}\mbox{C} \\ \cdot \mbox{ Photoperiod (D:N) in hours} & : 16:8 \\ \end{array}$

Cell Line	Types Of Culture	Results	
Musa species	Shoot culture	No structural deformity observed	
		No necrotic tissues,	
		Actively growing shoots,	
		No toxicity to shoots	
Daucus species	Callus culture	No necrotic tissues,	
		Actively growing callus,	
		No toxicity to callus	





Product Specification

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Storage and Shelf Life

Dehydrated macroelements powder is extremely hygroscopic and should be protected from atmospheric moisture. If possible, the entire content of each bottle should be used immediately after opening or else the unused portion should be stored in a desiccator and refrigerated at 2-8°C. Use before the expiry date.

Further Reading

1. Steiner A. A. & Winden Helen Van, Plant Physiol., (1970), 46, 862 - 863

Disclaimer:

- User must ensure suitability of the product(s) in their application prior to use.
- The product conforms solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate.
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