

Technical Information

Vacin & Went Microelements (100X)

Product Code: TS2090

Application: Vacin & Went microelements (100X) powder has been specially formulated for the *in vitro* cultivation of orchid cultures. The powder contains inorganic microelement and iron source. The vial contains 3.14 grams of dehydrated microelements that is sufficient for making 100 litres of complete medium.

Composition**

Ingredients	mg/Litre
Manganese sulphate.H ₂ O	5.68
Ferric tartarate	26.30
TOTAL gm/litre	0.03

Methodology

Suspend 0.03 grams of dehydrated microelements powder# in 600ml of distilled water. Apply constant gentle stirring to the solution till the powder dissolves completely. Add desired heat stable supplements prior to autoclaving. Adjust the medium to the desired pH using 1N HCl/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 aseptically in sterile culture vessels.

Weight after vacuum drying to remove all water

Quality Control

Appearance

Red to brown, homogeneous, free flowing powder

Solubility

3.14 gm/litre partially soluble in distilled water.

Colour and clarity

Red to brown, opaque solution.

pH at 25°C

4.6 ±0.5 of 0.314% w/v dehydrated microelements powder.

Cultural Response

Cultural condition :

Incubation period : 5 weeks
 Relative humidity : 60% ± 2%
 Temperature : 22°C ± 2°C
 Photoperiod (D:N) in hours : 16:8

Cell Line	Type of Culture	Results
<i>Vanda</i> species	Shoot culture	No structural deformity observed No necrotic tissues, Actively growing shoots, No toxicity to shoots

[The medium is prepared as per direction. The growth promoting activity of this vitamin mixture is evaluated using two plant species viz. *Musa* species and *Daucus* species through three passages. Plant growth hormones (e.g. 2,4-D, NAA, Kinetin and 6-BAP) are added in suitable combinations and concentrations.]

Storage and Shelf Life

Dehydrated microelements 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.

Reference

1. Vacin E.F & Went E.W., Bot. Gaz., (1949), 110, 605

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.
- **Central Drug House Pvt. Ltd.** reserves the right to make changes to specifications and information related to the products at any time.
- Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing of diagnostic reagents extra.
- Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.
- Do not use the products if it fails to meet specifications for identity and performance parameters.