

## Technical Information

### Hoagland No. 2 Basal Salt Mixture (Modification No. 1)

#### Product Code: TS2105

**Application:** Hoagland No.2 basal salt mixture (modification No. 1) has been specially formulated for plant cell, tissue and organ cultures. The mixture contains macroelements, microelements and iron source.

#### Composition\*\*

Ingredients	mg/Litre
Potassium nitrate	505.50
Calcium nitrate	820.75
Magnesium sulphate	240.94
Potassium dihydrogen phosphate	136.10
Manganese chloride.4H <sub>2</sub> O	1.81
Boric acid	2.86
Molybdenum trioxide.2H <sub>2</sub> O	0.020
Zinc sulphate.7H <sub>2</sub> O	0.22
Copper sulphate.5H <sub>2</sub>	0.08
Ferric tartarate	5.00
<b>TOTAL gm/litre</b>	<b>1.71</b>

#### Methodology

Suspend 1.71 grams of dehydrated basal salt mixture# in 600ml of distilled water and rinse media vial with small quantity of distilled water to remove traces of powder. 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

White to off-white, homogeneous, free flowing powder.

<b>Solubility</b> 1.71 gm/litre soluble in distilled water		
<b>Colour and clarity.pH at 25°C</b> Colourless to light yellow, clear solution		
<b>Cultural Response</b> 5.1 ±0.5 of 0.171% w/v dehydrated basal salt mixture.		
<b>Cultural condition :</b>		
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>Musa</i> species	Shoot culture	No structural deformity observed No necrotic tissues, Actively growing shoots, No toxicity to shoots
<i>Daucus</i> species	Callus culture	No necrotic tissues, Actively growing callus, No toxicity to callus
[The medium is prepared as per direction. The growth promoting activity of this plant salt mixture is evaluated using two plant species viz. <i>Musa</i> species and <i>Daucus</i> 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 plant tissue culture media 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. Hoagland D.R. & Arnon D.I., California Agr. Exp. Stat Circular, (1950), 347, 1 - 32		
Disclaimer :		
<ul style="list-style-type: none"><li>User must ensure suitability of the product(s) in their application prior to use.</li><li>The product conforms solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at <b>CDH</b> is true and accurate.</li><li><b>Central Drug House Pvt. Ltd.</b> reserves the right to make changes to specifications and information related to the products at any time.</li><li>Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing of diagnostic reagents extra.</li><li>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.</li><li>Do not use the products if it fails to meet specifications for identity and performance parameters.</li></ul>		