

### Technical Information

#### Woody Plant Macroelements

Product Code: TS2036

#### Composition\*\*

Ingredients	mg/litre
Ammonium nitrate	400.00
Calcium chloride.2H <sub>2</sub> O	96.00
Calcium nitrate anhydrous	386.34
Magnesium sulphate	180.69
Potassium phosphate monobasic	170.00
Potassium sulphate	990.00
<b>TOTAL gm/litre</b>	<b>2.22</b>

#### Principle And Interpretation

Woody plant macroelements has been specially formulated for plant cell, tissue and organ cultures. Ammonium nitrate and calcium nitrate serves as the sources of nitrate.

#### Directions

Suspend 2.20 grams of dehydrated macroelements 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

<b>Appearance</b>	: White to off-white, homogeneous, free flowing powder.
<b>Solubility</b>	: 2.20 gm/litre soluble in distilled water.
<b>Colour and Clarity</b>	: Colourless to light yellow, clear solution.
<b>pH at 25°C</b>	: 4.9 ±0.5 of 0.220% w/v dehydrated macroelements 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>Musa species</i>	Shoot culture	No structural deformity observed No necrotic tissues, Actively growing shoots, No toxicity to shoots
<i>Daucus species</i>	Callus culture	No necrotic tissues, Actively growing callus, No toxicity to callus

### 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

- Lloyd G. & McCown B., Int. Plant Prop. Soc. Proc., (1981), 30, 421 - 427

### 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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