

TP 001A

MURASHIGE & SKOOG MEDIUM (W/ VITAMINS & CALCIUM CHLORIDE,W/O SUCROSE, AGAR)

Product Technical Details:

Supports or facilitate plant growth and/or shoot proliferation in two or more plant tissue cultures (both in monocyledons and dicotyledons).

INGREDIENTS	QUANTITY (MG/LTR)
POTASSIUM PHOSPHATE MONOBASIC	170
POTASSIUM NITRATE	1900
MAGNESIUM SULPHATE	180.69
AMMONIUM NITRATE	1650
COBALT CHLORIDE 6H ₂ O	0.025
COPPER SULPHATE 5H ₂ O	0.025
BORIC ACID	6.2
EDTA DISODIUM SALT 2H ₂ O	37.3
POTASSIUM IODIDE	0.83
MANGANESE SULFATE H ₂ O	16.9
FERROUS SULPHATE 7H ₂ O	27.8
SODIUM MOLYBDATE 2H ₂ O	0.25
ZINC SULPHATE 7H ₂ O	8.6
CALCIUM CHLORIDE 2H ₂ O	440
GLYCINE	2
MYO-INOSITOL	100
PYRIDOXINE HCl	0.5
THIAMINE HCl	0.1
NICOTINIC ACID	0.5

****FORMULA WT. 4.54 GMS/LTR****

Physical Properties:

Appearance	White to light tan with homogenous mixture of free flowing powder
Solubility	Colorless to slight yellow solution, clear, complete
pH (at 25°C)	4.8 0.2

Instructions for Use:

Dissolve 4.54gms of dehydrated medium in 600ml of distilled or deionized water at room temperature (15-30°C). Rinse media vial with small quantity of distilled water to remove traces of power. Add the desired heat stable supplements prior to autoclaving. Continue stirring until the powder has dissolved. Some times media does not dissolve completely unless the pH is reduced. For these, lower the pH to about 3.0 to facilitate dissolution of media. The pH of medium is adjusted by using 1N HCL/ 1N NaOH/ 1N KOH. Make up the final volume to 1000ml with distilled water. Mix Gently, heat and rotate between intervals until the solution becomes clear. Do not boil, reheat and allow to cool below 50°C during dispensing. Dispense the medium into suitable containers, plug or cap, then autoclave at 15psi (121°C) for 15 minutes, using a slow exhaust cycle. Higher temperatures and/or longer times are not recommended. Cool the autoclaved culture vessels containing medium to 45-50°C and aseptically add desired sterile heat-labile substrate.

Note: Media should be prepared according to formula mentioned on the label, however, it is recommended to use an entire container at once. Heat-labile substrates should be added, after autoclaving.

Storage and Shelf Life:

Dehydrated plant tissue culture media is hygroscopic and should be protected from sunlight and moisture. Store the prepared medium at 2-8°C away from direct light. Medium should be used before expiry date. The entire volume of each bottle should be used immediately after opening or else the unused portion should be stored in desiccators and refrigerated at 2-8°C.