TP 014 – NITSCH MEDIUM (With Vitamins and Sucrose W/O. Agar)

INTENDED USE

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

COMPOSITION

Ingredients	Mg / Ltr
Copper sulphate (Pentahydrate)	0.025
EDTA disodium salt.2H_2O	37.250
Boric acid	10.000
Manganese sulphate (Monohydrate)	18.940
Sodium molybdate (Dihyrate)	0.250
Zinc sulphate (Heptahydrate)	10.000
Ferrous sulphate (Heptahydrate)	27.85
Potassium nitrate	950.000
Potassium phosphate monobasic	68.000
Magnesium sulphate	90.340
Ammonium nitrate	720.000
Biotin	0.050
Folic acid	0.500
Glycine	2.000
myo-Inositol	100.000
Nicotinic acid	5.000
Pyridoxine HCl	0.500
Thiamine HCl	0.500
Sucrose	20000.000

Formula weight: 22.04 gms/ltr

QUALITY CONTROL SPECIFICATIONS

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

INSTRUCTION FOR USE

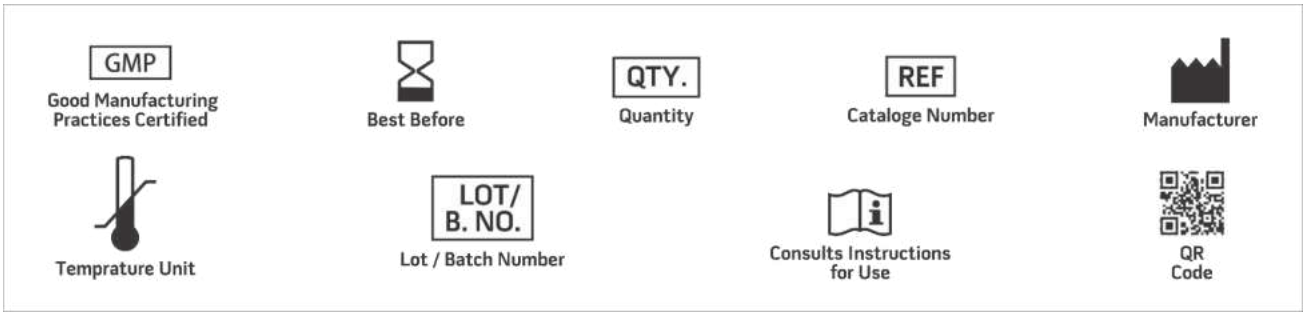
Dissolve 22.04 gms of dehydrated medium in 600ml of distilled or deionized water at room temperature (15 - 30°C). Rinse media vial with small quantity of distilled water to remove traces of powder. Add the desired heat stable supplements prior to autoclaving. Continue stirring until the powder has dissolved. Sometimes 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 cooling 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 substrates.

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

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 the 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.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

Revision: 2 March., 2022