Product Information Sheet

L546
Litvay Basal Salt Mixture

Synonym: LM Basal Salt Mixture

Properties

Form:	Fine Powder
Appearance:	Off-white to Yellow
Application:	Plant Tissue Culture
Solubility:	Soluble in Water
Typical Working Concentration:	4.95 g/L
Storage Temp:	2 – 6 °C
Storage Temp of Stock Solution:	Preparation of concentrated solutions is not recommended as insoluble precipitates may form.
Other Notes:	Contains the macro- and micronutrients as described by Litvay et al. (1981).

Formula

Ammonium Nitrate	1650
Boric Acid	31
Calcium Chloride, Anhydrous	16.61
Cobalt Chloride•$6H_2O$	0.125
Cupric Sulfate•$5H_2O$	0.5
Ferric Sodium EDTA	36.7
Magnesium Sulfate, Anhydrous	903.38

Manganese Sulfate•H_2O	21
Molybdic Acid (Sodium Salt)• $2H_2O$	1.25
Potassium Iodide	4.15
Potassium Nitrate	1900
Potassium Phosphate, Monobasic	340
Zinc Sulfate•$7H_2O$	43

Application Notes

Plant species: Douglas-fir, Loblolly Pine, Carrot

Litvay et al. (1981) originally developed the medium to culture both juvenile and mature tissues of Douglas-fir (*Pseudotsuga menziesii*) and Loblolly pine (*Pinus taeda*). The original formulation contained 30 g/L sucrose and the following vitamins (mg/L): 100 myo-Inositol, 0.5 Nicotinic Acid, 0.1 Pyridoxine•HCl and 0.1 Thiamine•HCl. This medium was later used to study embryogenesis in wild carrot (*Daucus carota* L.) suspension cells (Litvay et al, 1985).

References

Litvay, JD, MA Johnson, DC Verma, D Einspahr, K Weyrauch. 1981. Conifer suspension culture medium development using analytical data from developing seeds. Inst. Paper Chemistry, IPC Tech Paper Ser No 115. Appleton, WI.

Litvay, JD, DC Verma, MA Johnson. 1985. Influence of loblolly pine (*Pinus taeda* L.) culture medium and its components on growth and somatic embryogenesis of the wild carrot (*Daucus carota* L.). *Plant Cell Rep*. 4:325.

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