

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 ₂ O	0.125
Cupric Sulfate•5H ₂ O	0.5
Ferric Sodium EDTA	36.7
Magnesium Sulfate, Anhydrous	903.38

Manganese Sulfate•H ₂ O	21
Molybdcic Acid (Sodium Salt)• 2H ₂ O	1.25
Potassium Iodide	4.15
Potassium Nitrate	1900
Potassium Phosphate, Monobasic	340
Zinc Sulfate•7H ₂ O	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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