

M524
Murashige & Skoog (MS)
Basal Salt Mixture

Synonym: MS Salts

Properties

Form: Fine to Fluffy Powder
 Appearance: White to Yellow Powder
 Application: Plant Tissue Culture
 Solubility: Water
 Typical Working Concentration: 4.33 g/L
 Storage Temp: 2-6°
 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 Murashige and Skoog (1962).
 pH = 3.5-4.5

Formula (mg/L)

Ammonium Nitrate	1650
Boric Acid	6.2
Calcium Chloride, Anhydrous	332.2
Cobalt Chloride•6H ₂ O	0.025
Cupric Sulfate•5H ₂ O	0.025
Na ₂ EDTA•2H ₂ O	37.26
Ferrous Sulfate•7H ₂ O	27.8
Magnesium Sulfate, Anhydrous	180.7

Manganese Sulfate•H ₂ O	16.9
Molybdic Acid (Sodium Salt)• 2H ₂ O	0.25
Potassium Iodide	0.83
Potassium Nitrate	1900
Potassium Phosphate, Monobasic	170
Zinc Sulfate•7H ₂ O	8.6

Application Notes

Plant Tissue Culture Tested

Plant species: This basal salt is used for numerous species.

References

Murashige, T and F Skoog. 1962. A revised medium for rapid growth and bioassays with tobacco tissue cultures. *Physiol. Plant.* 15: 473-497

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