



CERTIFICATE OF ANALYSIS

Bottled in the District of Columbia, United States of America; **March 2024**

MURASHIGE & SKOOG BASAL MEDIUM WITH VITAMINS

Product Description : Murashige & Skoog (MS) Basal Medium w/Vitamins

Product Number : MSM5L, MSM10L, MSM50L, MSM100L

Batch Number : 004

Composition

INGREDIENTS	QUANTITY (MG/L)
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
MAGANESE 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

Physical Properties

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

TEST SPECIFICATION	PLANT CELL LINE	RESULTS
Supports and or facilitates plant growth and or shoot proliferation in two or more plant tissue cultured lines with no morphological aberrations to plants.	Philodendron	PASSES
	Carnivorous plants	PASSES

Instructions for Use:

Dissolve 4.54g of dehydrated medium in 600 mL 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 circumstances, lower the pH to about 3.0 to facilitate dissolution of media. The pH of medium is adjusted by using 1N HCL/ 1N NaOH/ 1NKOH. Make up the final volume to 1000 mL 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 15 psi (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. 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 and 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.

Plant Cell Technology provides the above information intended to be used only as a guide to the appropriate handling of this material by a properly trained plant tissue culturist. Plant Cell Technology shall not be held liable for any damage resulting from handling or from contact with the above product.

This product is intended for LABORATORY USE ONLY.

Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticidal products, food additives or as household chemicals.



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