
	Document ID:	TDS-MCP-075-50L	Version:	001
	Date of Issue:	10-SEP-2024	Approved by:	Dr. Iman Kamranfar
	Review Date:	10-JAN-2025	Signature:	
	Title:	TECHNICAL DATASHEET		

MEM



Filtration/ Treatment	With Earle's Salts, non-essential amino acids (NEAAs) and L-Glutamine and with Phenol Red
Product Code	MCP-075-50L
Shelf Life	4 years from DOM
Storage Temperature	+2 to +8°C
Shipping Temperature	ambient

QC Specifications

Physical and Chemical Analysis	Method	Specifications	Units
Appearance	Visual	Light orange to tan powder	n/a
Solubility	Internally validated	9.59 in ≤ 30 minutes	g/L
Moisture Content	Loss-on drying	≤ 2.0 %	n/a
pH without NaHCO ₃	Electronic pH Meter	5.5 - 6.7	n/a
pH with NaHCO ₃	Electronic pH Meter	6.8 - 8.0	n/a
Osmolality without NaHCO ₃	Osmometer	240 - 280	mOsm/kg
Osmolality with NaHCO ₃	Osmometer	280 - 320	mOsm/kg
Endotoxin	LAL Kinetic	≤ 1.0	EU/ml
Mycoplasma	qPCR	Not detected	n/a
Cell culture			
Cell growth promotion	Passage test	3 passages	n/a
Viability	Trypan Blue Exclusion	≥75%	n/a



Formulation

Amino Acids	CAS number	Concentration (mg/L)
L-Alanine	56-41-7	8.90
L-Arginine, Hydrochloride	1119-34-2	126.40
L-Asparagine, Monohydrate	5794-13-8	15.00
L-Aspartic acid	56-84-8	13.30
L-Cystine, Dihydrochloride	30925-07-6	31.20
L-Glutamine	56-85-9	292.00
Glycine	56-40-6	7.50
L-Histidine, Hydrochloride, Monohydrate	5934-29-2	41.90
L-Isoleucine	73-32-5	52.50
L-Leucine	61-90-5	52.50
L-Lysine, Hydrochloride	657-27-2	73.00
L-Methionine	63-68-3	15.00
L-Phenylalanine	63-91-2	32.50
L-Proline	147-85-3	11.50
L-Serine	56-45-1	10.50
L-Threonine	72-19-5	47.60
L-Tryptophan	73-22-3	10.00
L-Tyrosine, Disodium, Dihydrate	122666-87-9	51.90
L-Valine	72-18-4	46.80
Vitamins		
Choline Chloride	67-48-1	1.00
D-Calcium Pantothenate	6381-63-1	1.00
Folic Acid	59-30-3	1.00
Myo-Inositol	87-89-8	2.00
Niacinamide	98-92-0	1.00
Pyridoxal, Hydrochloride	65-22-5	1.00
Riboflavin	83-88-5	0.10
Thiamine, Hydrochloride	67-03-8	1.00
Other Components		

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D-Glucose, Anhydrous	50-99-7	1000.00
Phenol Red, Sodium Salt	34487-61-1	15.00
Inorganic Salts		
Calcium Chloride, Anhydrous	10043-52-4	200.00
Magnesium Sulfate, Anhydrous	7487-88-9	97.67
Potassium Chloride	7447-40-7	400.00
Sodium Chloride	7647-14-5	6800.00
Sodium Phosphate, Monobasic, Monohydrate	10049-21-5	125.00

*Note: Gram of powder required for 1 L medium: 9.586.
Sodium Bicarbonate is not included in the powdered media (2200.00 mg/L).*

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Product Use: This product is intended for laboratory use only.