
	Document ID:	TDS-MCP-037-50L	Version:	008
	Date of Issue:	10-JAN-2025	Approved by:	Dr. Iman Kamranfar
	Review Date:	10-JAN-2027	Signature:	
	Title:	TECHNICAL DATASHEET		

RPMI 1640



Filtration/ Treatment	With L-Glutamine and Phenol Red.
Product Code	MCP-037-50L
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 powder	n/a
Solubility	Internally validated	10.42 in ≤ 30 minutes	g/L
Moisture Content	Loss-on drying	≤ 2.0 %	n/a
pH without NaHCO ₃	Electronic pH Meter	7.5 - 8.0	n/a
pH with NaHCO ₃	Electronic pH Meter	7.7 - 8.7	n/a
Osmolality without NaHCO ₃	Osmometer	220 - 280	mOsm/kg
Osmolality with NaHCO ₃	Osmometer	260 - 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)
Glycine	56-40-6	10.00
L-Arginine, Hydrochloride	1119-34-2	242.31
L-Asparagine, Anhydrous	70-47-3	50.00
L-Aspartic Acid	56-84-8	20.00
L-Cystine, Dihydrochloride	30925-07-6	65.00
L-Glutamic acid	56-86-0	20.00
L-Glutamine	56-85-9	300.00
L-Histidine, Anhydrous	71-00-1	15.00
L-Hydroxyproline	51-35-4	20.00
L-Isoleucine	73-32-5	50.00
L-Leucine	61-90-5	50.00
L-Lysine, Hydrochloride	657-27-2	40.00
L-Methionine	63-68-3	15.00
L-Phenylalanine	63-91-2	15.00
L-Proline	147-85-3	20.00
L-Serine	56-45-1	30.00
L-Threonine	72-19-5	20.00
L-Tryptophan	73-22-3	5.00
L-Tyrosine, Disodium, Dihydrate	122666-87-9	29.00
L-Valine	72-18-4	20.00
Vitamins		
Biotin	58-85-5	0.20
Choline Chloride	67-48-1	3.00
D-Calcium Pantothenate	137-08-6	0.25
Folic Acid	59-30-3	1.00
Myo-Inositol	87-89-8	35.00
Niacinamide	98-92-0	1.00
para-Aminobenzoic Acid	150-132-0	1.00
Pyridoxine, Hydrochloride	58-56-0	1.00
Riboflavin	83-88-5	0.20
Thiamine, Hydrochloride	67-03-8	1.00

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Vitamin B12	68-19-9	0.01
Other Components		
D-Glucose, Anhydrous	50-99-7	2000.00
Glutathione, Reduced	70-18-8	1.00
Phenol Red, Sodium Salt	34487-61-1	5.00
Inorganic Salts		
Calcium Nitrate, Tetrahydrate	13477-34-4	100.00
Magnesium Sulfate, Anhydrous	7487-88-9	48.84
Potassium Chloride	7447-40-7	400.00
Sodium Chloride	7647-14-5	6000.00
Sodium Phosphate Dibasic, Anhydrous	7558-79-4	800.70

Note: Sodium Bicarbonate is not included in the powdered media (2000.00 mg/L).

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