

	Document ID:	TDS-MCL-090-500ML	Version:	001
	Date of Issue:	05-NOV-2025	Approved by:	Dr. Iman Kamranfar
	Review Date:	10-JAN-2027	Signature:	
	Title:	TECHNICAL DATASHEET		

RPMI 1640

Filtration/ Treatment	With 15 mM HEPES, With Stable Glutamine
Product Code	MCL-090-500ML
Shelf Life	18 months from DOM
Storage Temperature	+2 to +8°C
Shipping Temperature	ambient

QC Specifications

Physical and Chemical Analysis	Method	Specifications	Units
Appearance	Visual	Clear, red-orange solution	n/a
pH at RT	Electronic pH Meter	6.9 - 7.5	n/a
Osmolality	Osmometer	260 - 340	mOsm/kg
Endotoxin	LAL Kinetic	≤ 1.0	EU/ml
Sterility			
Aerobic Bacteria	Internally Validated	Not detected	n/a
Anaerobic Bacteria	Internally Validated	Not detected	n/a
Fungi (Yeast & Mold)	Internally Validated	Not detected	n/a
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-Alanyl-Glutamine	39537-23-0	446.00
L-Arginine	74-79-3	200.00
L-Asparagine	70-47-3	50.00
L-Aspartic Acid	56-84-8	20.00
L-Cystine	30925-07-6	50.00
L-Glutamic acid	56-86-0	20.00
L-Histidine	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	122666-87-9	20.00
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

	Document ID:	TDS-MCL-090-500ML	Version:	001
	Date of Issue:	05-NOV-2025	Approved by:	Dr. Iman Kamranfar
	Review Date:	10-JAN-2027	Signature:	
	Title:	TECHNICAL DATASHEET		

Vitamin B12	68-19-9	0.01
Other Components		
D-Glucose, Anhydrous	50-99-7	2000.00
Glutathione, Reduced	70-18-8	1.00
HEPES	7365-45-9	3574.00
Phenol Red, Sodium Salt	34487-61-1	5.00
Inorganic Salts		
Calcium Nitrate	13477-34-4	100.00
Magnesium Sulfate	7487-88-9	100.00
Potassium Chloride	7447-40-7	400.00
Sodium Bicarbonate	144-55-8	2000.00
Sodium Chloride	7647-14-5	5500.00
Sodium Phosphate Dibasic, Anhydrous	7558-79-4	800.00

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