

Minimum Essential Medium Eagle (MEM)

Catalog No.	10-010 1X Liquid EMEM	15-010 1X Liquid EMEM	15-015 1X Liquid SMEM	17-305 1X Liquid EMEM
Inorganic Salts	mg/L	mg/L	mg/L	mg/L
CaCl ₂ (anhydrous)	200.00	200.00	--	200.00
KCl	400.00	400.00	400.00	400.00
MgSO ₄ (anhydrous)	97.70	97.70	--	97.70
NaCl	6800.00	6800.00	6800.00	6800.00
NaH ₂ PO ₄ • H ₂ O	140.00	140.00	1217.00	140.00
NaHCO ₃	2200.00	2200.00	2200.00	2200.00
Amino Acids				
L-Arginine • HCl	126.40	126.40	126.40	126.40
L-Cystine • 2HCl	31.20	31.20	31.20	31.20
L-Glutamine	292.00	--	--	--
L-Histidine • HCl • H ₂ O	41.90	41.90	41.90	41.90
L-Isoleucine	52.50	52.50	52.50	52.50
L-Leucine	52.50	52.50	52.50	52.50
L-Lysine • HCl	72.50	72.50	72.50	72.50
L-Methionine	15.00	15.00	15.00	15.00
L-Phenylalanine	32.50	32.50	32.50	32.50
L-Threonine	47.60	47.60	47.60	47.60
L-Tryptophan	10.00	10.00	10.00	10.00
L-Tyrosine • 2Na • 2H ₂ O	51.90	51.90	51.90	51.90
L-Valine	46.80	46.80	46.80	46.80
Vitamins				
D-Calcium pantothenate	1.00	1.00	1.00	1.00
Choline chloride	1.00	1.00	1.00	1.00
Folic acid	1.00	1.00	1.00	1.00
i-Inositol	2.00	2.00	2.00	2.00
Nicotinamide	1.00	1.00	1.00	1.00
Pyridoxine • HCl	1.00	1.00	1.00	1.00
Riboflavin	0.10	0.10	0.10	0.10
Thiamine • HCl	1.00	1.00	1.00	1.00
Other				
D-Glucose	1000.00	1000.00	1000.00	1000.00
Phenol red, Na	10.00	10.00	10.00	--
Add				
L-Glutamine Powder (mg/L)	--	292.00	292.00	292.00
200 mM Solution (mL/L)	--	10.00	10.00	10.00
Specifications				
pH	7.2 ± 0.2	7.2 ± 0.2	7.2 ± 0.2	7.2 ± 0.2
Osmolality (mOsm/kg)	290 ± 30	290 ± 30	290 ± 30	290 ± 30
Grams of powder required to prepare 1L (1X Solution)	n/a	n/a	n/a	n/a

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Minimum Essential Medium Eagle (MEM)

Catalog No.	50-004 Powder, GMEM	50-010 Powder, EMEM	50-011 Powder, EMEM	50-019 Powder, HMEM	51-010 Powder Autoclavable EMEM	90-009 Powder, EMEM
Inorganic Salts	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
CaCl ₂ (anhydrous)	200.00	200.00	200.00	140.00	200.00	200.00
Fe(NO ₃) ₃ • 9H ₂ O	0.10	--	--	--	--	--
KCl	400.00	400.00	400.00	400.00	400.00	400.00
KH ₂ PO ₄	--	--	--	60.00	--	--
MgSO ₄ (anhydrous)	97.67	97.70	97.70	97.67	97.00	97.70
NaCl	6400.00	6800.00	6800.00	8000.00	6800.00	6800.00
NaH ₂ PO ₄ • H ₂ O	124.00	140.00	140.00	--	140.00	140.00
Na ₂ HPO ₄ (anhydrous)	--	--	--	47.88	--	--
NaHCO ₃	--	--	--	--	--	--
Na succinate • 6H ₂ O	--	--	--	--	100.00	--
Amino Acids						
L-Alanine	--	--	8.90	--	--	--
L-Arginine • HCl	42.00	126.40	126.40	126.00	126.40	126.40
L-Asparagine • H ₂ O	--	--	15.00	--	--	--
L-Aspartic acid	--	--	13.30	--	--	--
L-Cystine • 2HCl	31.28	31.20	31.20	31.20	31.10	31.20
L-Glutamic acid	--	--	14.70	--	--	--
L-Glutamine	292.00	292.00	292.00	292.00	--	--
Glycine	--	--	7.50	--	--	--
L-Histidine • HCl • H ₂ O	21.00	41.90	41.90	42.00	41.90	41.90
L-Isoleucine	52.40	52.50	52.50	52.00	52.50	52.50
L-Leucine	52.40	52.50	52.50	52.00	52.50	52.50
L-Lysine • HCl	73.10	72.50	72.50	72.50	73.06	72.50
L-Methionine	15.00	15.00	15.00	15.00	14.90	15.00
L-Phenylalanine	33.00	32.50	32.50	32.00	33.02	32.50
L-Proline	--	--	11.50	--	--	--
L-Serine	--	--	10.50	--	--	--
L-Threonine	47.60	47.60	47.60	48.00	47.64	47.60
L-Tryptophan	8.00	10.00	10.00	10.00	10.20	10.00
L-Tyrosine • 2Na • 2H ₂ O	52.19	51.90	51.90	51.90	--	51.90
L-Tyrosine, free base	--	--	--	--	36.00	--
L-Valine	46.80	46.80	46.80	46.00	46.90	46.80
Vitamins						
Choline bitartrate	--	--	--	--	1.80	--
D-Calcium pantothenate	2.00	1.00	1.00	1.00	1.00	1.00
Choline chloride	2.00	1.00	1.00	1.00	--	1.00
Folic acid	2.00	1.00	1.00	1.00	1.00	1.00
i-Inositol	3.60	2.00	2.00	2.00	2.00	2.00
Nicotinamide	2.00	1.00	1.00	1.00	1.00	1.00
Pyridoxine • HCl	2.00	1.00	1.00	1.00	1.00	1.00
Riboflavin	0.20	0.10	0.10	0.10	0.10	0.10
Thiamine • HCl	2.00	1.00	1.00	1.00	1.00	1.00
Other						
D-Glucose	4500.00	1000.00	1000.00	1000.00	1000.00	1000.00
Phenol red, Na	15.00	10.00	10.00	10.00	6.00	--
Sodium pyruvate	--	--	--	--	--	--
Succinic acid	--	--	--	--	75.00	--
Add						
NaHCO ₃						
Powder (g/L)	2.75	2.20	2.20	2.20	2.20	2.20
7.5% Solution (mL/L)	33.40	26.70	26.70	26.70	26.70	26.70
L-Glutamine						
Powder (mg/L)	--	--	--	--	292.00	292.00
200 mM Solution (mL/L)	--	--	--	--	10.00	10.00
Specifications						
pH (before buffer)	6.0 ± 0.5	6.0 ± 0.5	5.5 ± 0.5	6.7 ± 0.2	INFO	6.0 ± 0.5
pH (after buffer)	7.5 ± 0.5	7.5 ± 0.5	7.5 ± 0.5	7.2 ± 0.2	INFO	7.5 ± 0.5
Osmolality (mOsm)	290 ± 30	290 ± 30	290 ± 30	285 ± 15	INFO	290 ± 30
Grams of powder required to prepare 1L (1X Solution)	12.52	9.53	9.61	10.63	9.39	9.23