

Media Production Formulations

**Alpha Minimum Essential Medium
(without Nucleosides)**

CCF Product Code Number: CCFAC006 (Old Code AE500)

Compound	Formula	mg/L
Part A: Inorganic Salts		
Calcium chloride (anhydrous)	CaCl ₂	200.00
Magnesium sulfate	MgSO ₄ ·7H ₂ O	200.00
Potassium chloride	KCl	400.00
Sodium bicarbonate	NaHCO ₃	2200.00
Sodium chloride	NaCl	6800.00
Sodium phosphate·H ₂ O	NaH ₂ PO ₄ ·H ₂ O	140.00
Part B: Other components		
D-Glucose	C ₆ H ₁₂ O ₆	1000.00
Lipoic acid	C ₈ H ₁₄ O ₂ S ₂	0.20
Phenol Red (Na)	C ₁₉ H ₁₃ NaO ₅ S	10.00
Sodium pyruvate	C ₃ H ₃ O ₃ ·Na	110.00
Part C: Amino Acids		
L-Alanine	C ₃ H ₇ NO ₂	25.00
L-Arginine hydrochloride	C ₆ H ₁₄ N ₄ O ₂ HCl	127.00

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Compound	Formula	mg/L
Part C: Amino Acids	(Continued)	
L-Asparagine H ₂ O	C ₄ H ₈ N ₂ O ₃ H ₂ O	50.00
L-Aspartic acid	C ₄ H ₇ N ₀₄	30.00
L-Cysteine hydrochloride H ₂ O	C ₃ H ₇ NO ₂ S 2H ₂ O	100.00
L-Cystine	C ₆ H ₁₂ N ₂ O ₄ S ₂	24.00
L-Glutamic acid	C ₅ H ₉ NO ₄	75.00
L-Glutamine	C ₅ H ₁₀ N ₂ O ₃	292.00
Glycine	C ₂ H ₅ NO ₂	50.00
L-Histidine hydrochloride H ₂ O	C ₆ H ₉ N ₃ O ₂ HCl H ₂ O	42.00
L-Isoleucine	C ₆ H ₁₃ NO ₂	52.00
L-Leucine	C ₆ H ₁₃ NO ₂	52.40
L-Lysine HCl	C ₆ H ₁₄ N ₂ O ₂ ·HCl	72.47
L-Methionine	C ₅ H ₁₁ NO ₂ S	15.00
L-Phenylalanine	C ₉ H ₁₁ NO ₂	32.00
L-Proline	C ₅ H ₉ NO ₂	40.00
L-Serine	C ₃ H ₇ NO ₃	25.00
L-Threonine	C ₄ H ₉ NO ₃	48.00

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Compound	Formula	mg/L
Part C: Amino Acids	(Continued)	
L-Tryptophan	$C_{11}H_{12}N_2O_2$	10.00
L-Tyrosine	$C_9H_{11}NO_3$	36.00
L-Valine	$C_5H_{11}NO_2$	46.00
Part D: Vitamins		
Ascorbic acid	$C_6H_8O_6$	50.00
Biotin	$C_{10}H_{16}N_2O_3S$	0.10
D-Calcium pantothenate	$C_{18}H_{32}CaN_2O_{10}$	1.00
Choline chloride	$C_5H_{14}ClNO$	1.00
Folic acid	$C_{19}H_{19}N_7O_6$	1.00
i-Inositol	$C_6H_{12}O_6$	2.00
Nicotinamide	$C_6H_6N_2O$	1.00
Pyridoxine hydrochloride	$C_8H_9NO_3 \cdot HCl$	1.00
Riboflavin	$C_{17}H_{20}N_4O_6$	0.10
Thiamine hydrochloride	$C_{12}H_{17}ClN_4OS \cdot HCl$	1.00
Vitamin B ₁₂	$C_{63}H_{88}CoN_{14}O_{14}P$	1.36

pH 7.2 Osmolarity: 300-309 mOsm