



Ham's F-12 Medium Formulation

Catalog no.	218-010 Powder Ham's F-12
Inorganic Salts	mg/L
CaCl ₂ (anhydrous)	33.30
CuSO ₄ (anhydrous)	0.0016
FeSO ₄ ·7H ₂ O	0.834
KCl	223.60
MgSO ₄ (anhydrous)	72.20
NaCl	7600.00
Na ₂ HPO ₄ (anhydrous)	142.00
NaHCO ₃	----
ZnSO ₄ ·7H ₂ O	0.863
Amino Acids	
L-Alanine	8.90
L-Arginine·HCl	211.00
L-Asparagine·H ₂ O	15.00
L-Aspartic acid	13.30
L-Cysteine·HCl·H ₂ O	35.12
L-Glutamic acid	14.70
L-Glutamine	146.20
Glycine	7.50
L-Histidine·HCl·H ₂ O	20.96
L-Isoleucine	3.94
L-Leucine	13.10
L-Lysine·HCl	36.50
L-Methionine	4.48
L-Phenylalanine	4.96
L-Proline	34.50
L-Serine	10.50
L-Threonine	11.90
L-Tryptophan	2.04
L-Tyrosine·2Na·2H ₂ O	7.84
L-Valine	11.70
Vitamins	
Biotin	0.0073
D-Calcium pantothenate	0.48
Choline chloride	13.96
Folic acid	1.30
i-Inositol	18.02
Nicotinamide	0.037
Pyridoxine·HCl	0.062
Riboflavin	0.038
Thiamine·HCl	0.34
Vitamin B ₁₂	1.36

To order: (450)-446-2660 Fax: (450) 446-7038
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Ham's F-12 Medium Formulation (contd.)

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Other	mg/L
D-Glucose	1802.00
Hypoxanthine, Na	4.77
Lipoic acid	0.21
Methyl lineoleate	0.088
Phenol red, Na	1.20
Putrescine·2HCl	0.16
Sodium pyruvate	110.00
Thymidine	0.73
Specifications	
pH (after buffer)	7.5 ± 0.5
Osmolality (mOsm/kg)	290 ± 30
Grams of powder required to prepare 1L (1X Solution)	10.64