

## Composition

**P03-4150                    Ham's F12 Medium**  
**P03-4110                    w: L-Glutamine**  
**P03-4101                    w/o: NaHCO<sub>3</sub>**

	Components	mg/L
Inorganic Salts	Calcium chloride x 2H <sub>2</sub> O	44.00
	Copper(II) sulfate x 5H <sub>2</sub> O	0.0025
	Iron (II) sulfate x 7H <sub>2</sub> O	0.834
	Magnesium chloride x 6H <sub>2</sub> O	122.00
	Potassium chloride	223.65
	Sodium chloride	7,599.00
	di-Sodium hydrogen phosphate anhydrous	142.04
	Zinc sulfate x 7H <sub>2</sub> O	0.863
Other Components	D(+)-Glucose anhydrous	1,801.60
	Hypoxanthine	4.08
	Linoleic acid	0.084
	DL- $\alpha$ -Lipoic acid	0.21
	Phenol red	1.20
	Putrescine x 2HCl	0.161
	Sodium pyruvate	110.00
	Thymidine	0.73
Amino Acids	L-Alanine	8.91
	L-Arginine x HCl	210.70
	L-Asparagine x H <sub>2</sub> O	15.01
	L-Aspartic acid	13.31
	L-Cysteine x HCl x H <sub>2</sub> O	35.12
	L-Glutamine	146.20
	L-Glutamic acid	14.71
	Glycine	7.51

	L-Histidine x HCl x H <sub>2</sub> O	20.96
	L-Isoleucine	3.94
	L-Leucine	13.12
	L-Lysine x HCl	36.54
	L-Methionine	4.48
	L-Phenylalanine	4.96
	L-Proline	34.53
	L-Serine	10.51
	L-Threonine	11.91
	L-Tryptophan	2.04
	L-Tyrosine	5.44
	L-Valine	11.71
Vitamins	D(+)-Biotin	0.007
	D-Calcium pantothenate	0.24
	Choline chloride	13.96
	Folic acid	1.32
	myo-Inositol	18.02
	Nicotinamide	0.037
	Pyridoxine x HCl	0.062
	Riboflavin	0.038
	Thiamine x HCl	0.34
	Vitamin B12	1.36