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Date of Issue:	10-JAN-2022	Approved by:	Dr. Iman Kamranfar
Review Date:	10-JAN-2024	Signature:	
Title:	<b>TECHNICAL DATA SHEET</b>		

**SPECIMEN**

<b>Product Name</b>	Dulbecco's Modified Eagle's/ Ham's F12 Medium
<b>Filtration/Treatment</b>	With L-Glutamine
<b>Product Codes</b>	MCP-047-50L
<b>Shelf Life</b>	4 years
<b>Storage Temperature</b>	2 to 8 °C
<b>Shipping Temperature</b>	ambient
<b>Substance</b>	<b>Concentration (mg/L)</b>
<b>Amino Acids</b>	
Glycine	18.75
L-Alanine	4.45
L-Arginine, Hydrochloride	147.50
L-Asparagine, Monohydrate	7.50
L-Aspartic Acid	6.65
L-Cysteine, Hydrochloride, Monohydrate	17.56
L-Cystine, Dihydrochloride	31.29
L-Glutamic Acid	7.35
L-Glutamine	365.00
L-Histidine, Hydrochloride, Monohydrate	31.48
L-Isoleucine	54.47
L-Leucine	59.05
L-Lysine, Hydrochloride	91.25
L-Methionine	17.24
L-Phenylalanine	35.48
L-Proline	17.25
L-Serine	26.25
L-Threonine	53.45
L-Tryptophan	9.02
L-Tyrosine, Disodium, Dihydrate	55.79
L-Valine	52.85
<b>Vitamins</b>	
Biotin	0.004
Choline Chloride	8.98
D-Calcium Pantothenate	2.24
Folic Acid	2.65
Myo-Inositol	12.60
Niacinamide	2.02
Pyridoxine, Hydrochloride	2.03
Riboflavin	0.22
Thiamine, Hydrochloride	2.17
Vitamin B12	0.68
<b>Other Components</b>	
D-Glucose, Anhydrous	3151.00
Hypoxanthine, Sodium	2.39
Linoleic Acid	0.04
Lipoic Acid (DL-Thiolic Acid)	0.11
Phenol Red, Sodium Salt	8.10

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Putrescine, Dihydrochloride	0.08
<b>Substance</b>	<b>Concentration (mg/L)</b>
Pyruvic Acid, Sodium Salt	55.00
Thymidine	0.37
<b>Inorganic Salts</b>	
Calcium Chloride, Anhydrous	116.60
Cupric Sulfate, Pentahydrate	0.001
Ferric Nitrate, Nonahydrate	0.05
Ferrous Sulfate, Heptahydrate	0.42
Magnesium Chloride, Anhydrous	28.61
Magnesium Sulfate, Anhydrous	48.93
Potassium Chloride	311.80
Sodium Chloride	6995.50
Sodium Phosphate Dibasic, Anhydrous	70.96
Sodium Phosphate, Monobasic, Monohydrate	62.50
Zinc Sulfate, Heptahydrate	0.43
<b>Specifications</b>	
Appearance	Off-white to orange powder
Solubility	11.99 g/L in ≤ 30 minutes
Moisture Content	≤ 2.0 %
Particle Size (100 mesh)	≥ 90%
pH without NaHCO <sub>3</sub>	6.1 - 6.8
pH with NaHCO <sub>3</sub>	Record
Osmolality without NaHCO <sub>3</sub>	240-280 mM/kg
Osmolality with NaHCO <sub>3</sub>	Record
Endotoxin	≤ 1.0 EU/ml
Mycoplasma	Not detected
Cell Culture – Cell Growth Promotion	3 Passages
Viability	≥ 75%

Note: Sodium Bicarbonate is not included in the powdered media (1200.00 mg/L).

**THIS PRODUCT IS FOR LABORATORY USE ONLY.**