

Catalog No.	10-090 1X, Liquid DMEM/F12	10-092 1X, Liquid DMEM/F12
<b>Inorganic Salts</b>	<b>mg/L</b>	<b>mg/L</b>
CaCl <sub>2</sub> (anhydrous)	116.65	116.65
CuSO <sub>4</sub> (anhydrous)	0.0008	0.0008
Fe(NO <sub>3</sub> ) <sub>3</sub> ·9H <sub>2</sub> O	0.05	0.05
FeSO <sub>4</sub> ·7H <sub>2</sub> O	0.417	0.417
KCl	311.80	311.80
MgSO <sub>4</sub> (anhydrous)	84.95	84.95
NaCl	7000.00	7000.00
NaH <sub>2</sub> PO <sub>4</sub> ·H <sub>2</sub> O	62.50	62.50
Na <sub>2</sub> HPO <sub>4</sub> (anhydrous)	71.00	71.00
NaHCO <sub>3</sub>	2438.00	2438.00
ZnSO <sub>4</sub> ·7H <sub>2</sub> O	0.4315	0.4315
<b>Amino Acids</b>		
L-Alanine	4.45	4.45
L-Arginine·HCl	147.50	147.50
L-Asparagine·H <sub>2</sub> O	7.50	7.50
L-Aspartic acid	6.65	6.65
L-Cysteine·HCl·H <sub>2</sub> O	17.56	17.56
L-Cystine·2HCl	31.285	31.285
L-Glutamic acid	7.35	7.35
L-Glutamine	365.10	365.10
Glycine	18.75	18.75
L-Histidine·HCl·H <sub>2</sub> O	31.48	31.48
L-Isoleucine	54.37	54.37
L-Leucine	58.95	58.95
L-Lysine·HCl	91.35	91.35
L-Methionine	17.24	17.24
L-Phenylalanine	35.48	35.48
L-Proline	17.25	17.25
L-Serine	26.25	26.25
L-Threonine	53.55	53.55
L-Tryptophan	9.02	9.02
L-Tyrosine·2Na·2H <sub>2</sub> O	55.815	55.815
L-Valine	52.85	52.85

Catalog No.	10-090 1X, Liquid DMEM/F12	10-092 1X, Liquid DMEM/F12
<b>Vitamins</b>	<b>mg/L</b>	<b>mg/L</b>
Biotin	0.00365	0.00365
D-Calcium pantothenate	2.24	2.24
Choline chloride	8.98	8.98
Folic acid	2.65	2.65
i-Inositol	12.61	12.61
Nicotinamide	2.0185	2.0185
Pyridoxine·HCl	2.031	2.031
Riboflavin	0.219	0.219
Thiamine·HCl	2.17	2.17
Vitamin B <sub>12</sub>	0.68	0.68
<b>Other</b>		
D-Glucose	3151.00	3151.00
HEPES	—	3574.80
Hypoxanthine, Na	2.385	2.385
Lipoic acid	0.105	0.105
Methyl lineoleate	0.044	0.044
Phenol red, Na	8.10	8.10
Putrescine·2HCl	0.08	0.08
Sodium pyruvate	110.00	110.00
Thymidine	0.365	0.365
<b>Add</b>		
NaHCO <sub>3</sub> Powder (g/L)	—	—
7.5% Solution (mL/L)	—	—
L-Glutamine Powder (mg/L)	—	—
200 mM Solution (mL/L)	—	—
<b>Specifications</b>		
pH (before buffer)	N/A	N/A
pH (after buffer)	7.2 ± 0.2	7.2 ± 0.2
Osmolality (mOsm)	310 ± 30	335 ± 30
Grams of powder required to prepare 1L (1X Solution)	N/A	N/A

Dulbecco's Modification of Eagle's Medium Ham's F12 50/50 Mix

Catalog No.	15-090 1X, Liquid DMEM/F12	16-405 1X, Liquid DMEM/F12
<b>Inorganic Salts</b>	<b>mg/L</b>	<b>mg/L</b>
CaCl <sub>2</sub> (anhydrous)	116.65	116.65
CuSO <sub>4</sub> (anhydrous)	0.0008	0.0008
Fe(NO <sub>3</sub> ) <sub>3</sub> •9H <sub>2</sub> O	0.05	0.05
FeSO <sub>4</sub> •7H <sub>2</sub> O	0.417	0.417
KCl	311.80	311.80
MgSO <sub>4</sub> (anhydrous)	84.95	84.95
NaCl	7000.00	7000.00
NaH <sub>2</sub> PO <sub>4</sub> •H <sub>2</sub> O	62.50	62.50
Na <sub>2</sub> HPO <sub>4</sub> (anhydrous)	71.00	71.00
NaHCO <sub>3</sub>	2438.00	2438.00
ZnSO <sub>4</sub> •7H <sub>2</sub> O	0.4315	0.4315
<b>Amino Acids</b>		
L-Alanine	4.45	4.45
L-Arginine•HCl	147.50	147.50
L-Asparagine•H <sub>2</sub> O	7.50	7.50
L-Aspartic acid	6.65	6.65
L-Cysteine•HCl•H <sub>2</sub> O	17.56	17.56
L-Cystine•2HCl	31.285	31.285
L-Glutamic acid	7.35	7.35
L-Glutamine	—	365.10
Glycine	18.75	18.75
L-Histidine•HCl•H <sub>2</sub> O	31.48	31.48
L-Isoleucine	54.37	54.37
L-Leucine	58.95	58.95
L-Lysine•HCl	91.35	91.35
L-Methionine	17.24	17.24
L-Phenylalanine	35.48	35.48
L-Proline	17.25	17.25
L-Serine	26.25	26.25
L-Threonine	53.55	53.55
L-Tryptophan	9.02	9.02
L-Tyrosine•2Na•2H <sub>2</sub> O	55.815	55.815
L-Valine	52.85	52.85

Catalog No.	15-090 1X, Liquid DMEM/F12	16-405 1X, Liquid DMEM/F12
<b>Vitamins</b>	<b>mg/L</b>	<b>mg/L</b>
Biotin	0.00365	0.00365
D-Calcium pantothenate	2.24	2.24
Choline chloride	8.98	8.98
Folic acid	2.65	2.65
i-Inositol	12.61	12.61
Nicotinamide	2.0185	2.0185
Pyridoxine•HCl	2.031	2.031
Riboflavin	0.219	0.219
Thiamine•HCl	2.17	2.17
Vitamin B <sub>12</sub>	0.68	0.68
<b>Other</b>		
D-Glucose	3151.00	3151.00
HEPES	—	—
Hypoxanthine, Na	2.385	2.385
Lipoic acid	0.105	0.105
Methyl lineoleate	0.044	0.044
Phenol red, Na	8.10	—
Putrescine•2HCl	0.08	0.08
Sodium pyruvate	110.00	110.00
Thymidine	0.365	0.365
<b>Add</b>		
NaHCO <sub>3</sub>		
Powder (g/L)	—	—
7.5% Solution (mL/L)	—	—
L-Glutamine		
Powder (mg/L)	365.10	—
200 mM Solution (mL/L)	12.50	—
<b>Specifications</b>		
pH (before buffer)	N/A	N/A
pH (after buffer)	7.2 ± 0.2	7.2 ± 0.2
Osmolality (mOsm)	310 ± 30	310 ± 30
Grams of powder required to prepare 1L (1X Solution)	N/A	N/A

Dulbecco's Modification of Eagle's Medium Ham's F12 50/50 Mix

Catalog No.	90-090 Powder DMEM/F12	90-091 Powder DMEM/F12
<b>Inorganic Salts</b>	<b>mg/L</b>	<b>mg/L</b>
CaCl <sub>2</sub> (anhydrous)	116.65	116.65
CuSO <sub>4</sub> (anhydrous)	0.0008	0.0008
Fe(NO <sub>3</sub> ) <sub>3</sub> ·9H <sub>2</sub> O	0.05	0.05
FeSO <sub>4</sub> ·7H <sub>2</sub> O	0.417	0.417
KCl	311.80	311.80
MgSO <sub>4</sub> (anhydrous)	84.95	84.95
NaCl	7000.00	7000.00
NaH <sub>2</sub> PO <sub>4</sub> ·H <sub>2</sub> O	62.50	62.50
Na <sub>2</sub> HPO <sub>4</sub> (anhydrous)	71.00	71.00
NaHCO <sub>3</sub>	—	—
ZnSO <sub>4</sub> ·7H <sub>2</sub> O	0.4315	0.4315
<b>Amino Acids</b>		
L-Alanine	4.45	4.45
L-Arginine·HCl	147.50	147.50
L-Asparagine·H <sub>2</sub> O	7.50	7.50
L-Aspartic acid	6.65	6.65
L-Cysteine·HCl·H <sub>2</sub> O	17.56	17.56
L-Cystine·2HCl	31.285	31.285
L-Glutamic acid	7.35	7.35
L-Glutamine	—	—
Glycine	18.75	18.75
L-Histidine·HCl·H <sub>2</sub> O	31.48	31.48
L-Isoleucine	54.37	54.37
L-Leucine	58.95	58.95
L-Lysine·HCl	91.35	91.35
L-Methionine	17.24	17.24
L-Phenylalanine	35.48	35.48
L-Proline	17.25	17.25
L-Serine	26.25	26.25
L-Threonine	53.55	53.55
L-Tryptophan	9.02	9.02
L-Tyrosine·2Na·2H <sub>2</sub> O	55.815	55.815
L-Valine	52.85	52.85

Catalog No.	90-090 Powder DMEM/F12	90-091 Powder DMEM/F12
<b>Vitamins</b>	<b>mg/L</b>	<b>mg/L</b>
Biotin	0.00365	0.00365
D-Calcium pantothenate	2.24	2.24
Choline chloride	8.98	8.98
Folic acid	2.65	2.65
i-Inositol	12.61	12.61
Nicotinamide	2.0185	2.0185
Pyridoxine·HCl	2.031	2.031
Riboflavin	0.219	0.219
Thiamine·HCl	2.17	2.17
Vitamin B <sub>12</sub>	0.68	0.68
<b>Other</b>		
D-Glucose	3151.00	3151.00
HEPES	—	—
Hypoxanthine, Na	2.385	2.385
Lipoic acid	0.105	0.105
Methyl lineoleate	0.044	0.044
Phenol red, Na	—	8.10
Putrescine·2HCl	0.08	0.08
Sodium pyruvate	110.00	110.00
Thymidine	0.365	0.365
<b>Add</b>		
NaHCO <sub>3</sub>		
Powder (g/L)	2.438	2.438
7.5% Solution (mL/L)	32.50	32.50
L-Glutamine		
Powder (mg/L)	365.10	365.10
200 mM Solution (mL/L)	12.50	12.50
<b>Specifications</b>		
pH (before buffer)	6.5 ± 0.5	6.5 ± 0.3
pH (after buffer)	8.0 ± 0.5	7.6 ± 0.3
Osmolality (mOsm)	290 ± 30	312 ± 12
Grams of powder required to prepare 1L (1X Solution)	11.69	11.70