ProductInformation

Biochemical Solubility

The following is a table with recommendations for solubilizing some of our biochemicals for cell culture use. The list highlights items that we have found to be troublesome. In addition, we have included molecular weights, storage temperatures and testing concentrations. The testing concentrations denote the use of the product in Sigma cell culture testing protocols.

Product	Product No.	M.W.	Storage Temperature	Solubilize or Reconstitute In	Testing Concentration (g/L)
ADENINE	A 2786	135.1	RT	1N NaOH	0.0066
D-ALDOSTERONE	A 8787	360.4	RT	Ethanol	0.01
AMMONIUM METAVANADATE	A 2286	117.0	RT	1N NaOH	0.000000585
ARACHIDONIC ACID	A 3555	304.5	-0ºC	H_2O+1N NaOH	0.0000024
L-ASPARAGINE	A 4159	132.1	RT	1N NaOH or 1N HCl	0.25
L-ASPARAGINE•H_2O	A 4284	150.1	RT	1N NaOH or 1N HCl	0.29
DL-ASPARTIC ACID	A 4409	133.1	RT	1N NaOH or 1N HCl	0.07
L-ASPARTIC ACID	A 4534	133.1	RT	1N NaOH or 1N HCl	0.07
D-BIOTIN	B 4639	244.3	2-8ºC	1N NaOH	0.001
CHOLESTEROL	C 3045	386.7	RT	Serum, Tween, or Ethanol	0.002
COBALT CHLORIDE•H_2O	C 8661	237.9	RT	1N HCl	0.002
L-CYSTINE	C 8786	240.3	RT	1N NaOH	0.02
2'-DEOXYADENOSINE	D 8668	251.2	RT	H_2O	0.01
DEXAMETHASONE	D 4902	392.5	2-8ºC	Ethanol	0.001
DIHYDROTESTOSTERONE	D 5027	290.4	RT	Ethanol	0.001
ERGOCALCIFEROL	E 9007	396.7	2-8ºC	Ethanol	0.00001
ß-ESTRADIOL	E 2758	272.4	RT	Ethanol	0.00001
FERRIC CITRATE	F 3388	244.9	RT	Hot dH_2O & 1N HCl	0.25
GLUCAGON	G 9154	3459.7	2-8ºC	1M NaOH	0.01
DL-GLUTAMIC ACID	G 5513	147.1	RT	1N HCl	0.15
L-GLUTAMIC ACID	G 5638	147.1	RT	1N NaOH	0.15
GUANINE•HCl	G 6263	187.6	RT	1N NaOH & Heat	0.0003
GUANOSINE	G 6264	283.2	RT	1M Acetic Acid	0.0112
HEPARIN	H 3149	N/A	RT	H_2O	0.05
L-HISTIDINE	H 9386	155.2	RT	1N HCl	0.31
HYDROCORTISONE	H 0888	362.5	RT	Ethanol	0.005
HYPOXANTHINE	H 9636	136.1	RT	1N NaOH	0.025
INSULIN	I 6634	5733.5	-0ºC	H_2O+Glacial Acetic Acid	0.0156
DL-ISOLEUCINE	I 6268	131.2	RT	H_2O	0.262
DL-LEUCINE	L 1387	131.2	RT1	1N NaOH	0.39
LINOLEIC ACID	L 1012	280.4	-0ºC	1N NaOH or Ethanol	0.000085
MAGNESIUM SULFATE	M 2643	120.4	RT	1N NaOH	0.24
L-MALIC ACID	M 7397	134.1	RT	Ethanol	0.5
L-METHIONINE	M 2893	149.2	RT	1N NaOH	0.149
OLEIC ACID	O 1383	282.5	-0ºC	Ethanol	0.004
DL-PHENYLALANINE	P 4905	165.2	RT	1N NaOH	0.248
L-PHENYLALANINE	P 5030	165.2	RT	1N NaOH	0.248
PROGESTERONE	P 8783	314.5	RT	Ethanol	0.0000016
PYRIDOXAL-5 PHOSPHATE	P 3657	247.1	-0ºC	1N NaOH	0.0002
TESTOSTERONE	T 6147	288.4	RT	Ethanol	0.0005
DL-6,8-THIOCTIC ACID	T 1395	206.3	RT	Ethanol	0.00021
THYMIDINE	T 1895	242.2	RT	1N NaOH	0.008
L-THYROXINE	T 1775	776.5	RT	1N NaOH & Heat	0.00000005
3,3',5-TRIIODO-L-THYRONINE	T 6397	673.0	-0ºC	0.01N NaOH	0.000005
DL-TRYPTOPHAN	T 7425	204.2	RT	0.5 NHCl	0.02

L-TRYPTOPHAN	T 0271	204.2	RT	1N NaOH	0.04
L-TYROSINE•HCl	T 2025	217.7	RT	1N NaOH & Heat	0.37
URACIL	U 1128	112.1	RT	1N NaOH	0.0003
DL-VALINE	V 6379	117.1	RT	1N HCl	0.234
L-VALINE	V 6504	117.1	RT	1N HCl	0.234
XANTHINE	X 3627	174.1	RT	1N NaOH with Shaking	0.000345
YEAST EXTRACT	Y 0500	N/A	RT	Boil in 100 ml dH_2O Sterilize by autoclaving at 121ºC 15 psi for 20 minutes.	2.0

RT = Room Temperature; (N/A) = not applicable