

William's Medium E w/o
Phenol Red or L-Glutamine

BE02-019

Lonza

Description	CAS #	Chemical Formula	Concentration		Molarity	
			mg/L	ug/L	mM	uM
D-Glucose anhydrous	50-99-7	C6H12O6	2.000E+03	2.000E+06	11.101	1.110E+04
Fe(NO3)3.9H2O	7782-61-8	Fe(NO3)3 • 9H2O	1.000E-04	0.100	2.475E-07	0.000
KCl	7447-40-7	KCl	400.000	4.000E+05	5.366	5.366E+03
NaCl	7647-14-5	NaCl	6.800E+03	6.800E+06	116.359	1.164E+05
Glutathione reduced	70-18-8	C10H17N3O6S	5.000E-02	50.000	1.627E-04	0.163
Sodium Pyruvate	113-24-6	C3H3NaO3	25.000	2.500E+04	0.227	227.182
L-Alanine	56-41-7	HO2CCH(NH2)CH3	90.000	9.000E+04	1.010	1.010E+03
L-Asparagine.H2O	5794-13-8	NH2COCH2CH(NH2)COOH • H2O	20.000	2.000E+04	0.133	133.218
L-Aspartic Acid	56-84-8	HO2CCH(NH2)CH2CO2H	30.000	3.000E+04	0.225	225.394
L-Cystine	56-89-3	C6H12N2O4S2	20.000	2.000E+04	8.323E-02	83.229
Glycine	56-40-6	HO2CCH2NH2	50.000	5.000E+04	0.666	666.045
L-Glutamic Acid	56-86-0	C5H9NO4	50.000	5.000E+04	0.340	339.905
L-Isoleucine	73-32-5	HO2CCH(NH2)CH(CH3)CH2CH3	50.000	5.000E+04	0.381	381.185
L-Leucine	61-90-5	HO2CCH(NH2)CH2CH(CH3)2	75.000	7.500E+04	0.572	571.777
L-Lysine.HCl	657-27-2	C6H14N2O2 • HCl	87.500	8.750E+04	0.479	479.058
L-Methionine	63-68-3	HO2CCH(NH2)CH2CH2SCH3	15.000	1.500E+04	0.101	100.536
L-Phenylalanine	63-91-2	HO2CCH(NH2)CH2C6H5	25.000	2.500E+04	0.151	151.341
L-Serine	56-45-1	HO2CCH(NH2)CH2OH	10.000	1.000E+04	9.516E-02	95.157
L-Threonine	72-19-5	HO2CCH(NH2)CH(OH)CH3	40.000	4.000E+04	0.336	335.796
L-Tryptophane	73-22-3	C11H12N2O2	10.000	1.000E+04	4.896E-02	48.964
L-Tyrosine	60-18-4	C9H11NO3	35.000	3.500E+04	0.193	193.167
L-Valine	72-18-4	HO2CCH(NH2)CH(CH3)2	50.000	5.000E+04	0.427	426.985
L-Proline	147-85-3	C5H9NO2	30.000	3.000E+04	0.261	260.575
D-Calcium Pantothenate	137-08-6	C18H32CaN2O10	1.000	1.000E+03	2.099E-03	2.099
Folic Acid	59-30-3	C19H19N7O6	1.000	1.000E+03	2.266E-03	2.266
Myo-Inositol	87-89-8	C6H12O6	2.000	2.000E+03	1.110E-02	11.101
Nicotinamide	98-92-0	C6H6N2O	1.000	1.000E+03	8.189E-03	8.189
Riboflavine	83-88-5	C17H20N4O6	0.100	100.000	2.657E-04	0.266
Thiamine.HCl	67-03-8	C12H17ClN4Os HCl	1.000	1.000E+03	2.965E-03	2.965
D-Biotin (Vitamin H)	58-85-5	C10H16N2O3S	0.500	500.000	2.047E-03	2.047
Vitamin B12	68-19-9	C63H88CoN14O14P	0.200	200.000	1.476E-04	0.148
ZnSO4.7H2O	7446-20-0	ZnSO4 • 7H2O	2.000E-04	0.200	6.957E-07	0.001
Choline Chloride	67-48-1	HOCH2CH2N(CH3)3Cl	1.500	1.500E+03	1.074E-02	10.743
Tween 80	9005-65-6	C64H124O26	1.836	1.836E+03	1.402E-03	1.402
Vitamine A Acetate	127-47-9	C22H32O2	0.100	100.000	3.044E-04	0.304
Ascorbic Acid	50-81-7	C6H8O6	2.000	2.000E+03	1.136E-02	11.355
DL-Tocopherol Phosphate.2Na	60934-46-5	C29H49O5PNa2	1.000E-02	10.000	1.803E-05	0.018
Ergocalciferol	50-14-6	C28H44O	0.100	100.000	2.521E-04	0.252
Linoleic Acid Methylster	112-63-0	C19H34O2	3.000E-02	30.000	1.019E-04	0.102
Pyridoxal.HCl	65-22-5	C8H9NO3 • HCl	1.000	1.000E+03	4.912E-03	4.912
L-Arginine	74-79-3	C6H14N4O2	50.000	5.000E+04	0.287	287.026
L-Cysteine	52-90-4	HS-CH2CH(NH2)COOH	40.000	4.000E+04	0.330	330.142
L-Histidine	71-00-1	(C3N2H3)CH2CH(NH2)COOH	15.000	1.500E+04	9.667E-02	96.674
CaCl2 anhydrous	10043-52-4	CaCl2	200.000	2.000E+05	1.802	1.802E+03
MgSO4 anhydrous	7487-88-9	MgSO4	497.671	4.977E+05	4.135	4.135E+03
NaH2PO4 Anhydrous	7558-79-4	Na2HPO4	140.000	1.400E+05	0.986	985.915
MnCl2.4H2O	13446-34-9	MnCl2 • 4H2O	1.000E-04	0.100	5.053E-07	0.001
CuSO4.5H2O	7758-99-8	CuSO4 • 5H2O	1.000E-04	0.100	4.005E-07	0.000
Menadione sodium bisulfite	130-37-0	C11H9NaO5S • 3H2O	1.000E-02	10.000	3.028E-05	0.030
NaHCO3	144-55-8	NaHCO3	2.200E+03	2.200E+06	26.187	2.619E+04
Absolute ethanol	64-17-5	CH3CH2OH	0.0010%		N/A	