M4 Medium Overall recipe:
Add the following to the correct amount of distilled water

Component	Conc (mM)	MW (g/mol)	add per 1L (g)	add per 10L (g)
K2HPO4	1.27	174.18	0.221	2.21
KH2PO4	0.73	136.09	0.099	0.99
NaHCO3	2.00	84.01	0.168	1.68
(NH4)2SO4	9.00	132.14	1.189	11.89
NaCl	125.00	58.44	7.305	73.05
Hepes	5.00	238.3	1.192	11.92
Yeast extract			0.5	5.0
Tryptone			0.5	5.0
100X minerals			10 mL	100 mL
100X CaCl2			10 mL	100 mL
40% sodium lactate	ADD AFTER	AUTOCLAVING!	4.3 mL	43 mL

For 100X Mineral Mix:
Add the following to 1 L distilled water. Store at 4C.

component	final mM	g/mol	final mg/L	100X g/L
Na2EDTA	0.0672	336.24	22.595328	2.260
MgSO4*7H2O	1.01	246.47	248.9347	24.89
MnSO4*4H2O	0.0013	223.07	0.289991	0.029
NaCl	0.01	58.44	0.5844	0.058
FeCl2	0.0054	126.751	0.6844554	0.068
CoCl2	0.005	129.839	0.649195	0.065
ZnSO4*7H2O	0.001	287.53	0.28753	0.029
CuSO4*5H2O	0.0002	249.7	0.04994	0.005
H3BO3	0.0566	61.83	3.499578	0.350
Na2MoO4	0.0039	205.92	0.803088	0.080
NiCl2*6H2O	0.005	237.69	1.18845	0.119
Na2SeO4	0.0015	188.94	0.28341	0.028

For 100X CaCl2 mixture:
Add 7.13 g CaCl2*2H2O to 1L H2O. Store at 4C.

For 40% sodium lactate:
Dilute 60% lactate solution (as ordered) to 40% by pouring 333 mL 60% solution into a graduated cylinder and bringing the volume to 500 mL with distilled water. Mix well, filter sterilize and store at 4C in the filter bottle.