

SODIUM CHLORIDE SOLUTIONS

NaCl Conc. (% by wt)	NaCl per bbl of water (ppb)	Vol of Final Solution (bbl)	NaCl (mg/L)	Cl- (mg/L)	Density		Freezing Point Degrees F
					(ppg)	(pcf)	
0	0.00	1.0000	0	0	8.34	62.4	32.0
1	3.54	1.0036	10,050	6,100	8.37	62.7	31.0
2	7.14	1.0074	20,250	12,290	8.43	63.2	30.0
4	14.58	1.0152	41,070	24,920	8.55	64.1	27.8
6	22.34	1.0232	62,480	37,910	8.67	65.0	25.5
8	30.43	1.0317	84,470	51,260	8.80	65.9	22.9
10	38.89	1.0405	107,100	64,990	8.92	66.8	20.2
12	47.73	1.0497	130,300	79,070	9.04	67.7	17.3
14	56.98	1.0593	153,100	92,900	9.17	68.7	14.1
16	66.67	1.0694	178,600	108,370	9.30	69.7	10.6
18	76.83	1.0800	202,700	123,000	9.43	70.6	6.7
20	87.50	1.0912	229,600	139,320	9.56	71.6	2.4
22	98.72	1.1029	256,100	155,400	9.70	72.6	2.5
24	110.53	1.1152	283,300	171,910	9.83	73.7	1.4
26	122.97	1.1282	311,300	188,890	9.97	74.7	27.9
26.4	126.00	1.1330	315,500	191,210	9.99	74.8	27.9

POTASSIUM CHLORIDE SOLUTIONS

KCl Conc. (% by wt)	KCl per bbl of Solution (ppb)	Water Content (% by vol)	KCl (mg/L)	Cl- (mg/L)	K+ (mg/L)	Density			Freezing Point Degrees F
						(sp gr)	(ppg)	(pcf)	
1	3.52	99	10,050	4,779.1	5,270.9	1.0046	8.4	62.6	31
2	7.09	99	20,220	9,615.2	10,604.8	1.0110	8.4	63.0	30
3	10.64	98	30,330	14,422.8	15,907.2	1.0175	8.5	63.4	29.5
4	14.36	98	40,960	19,477.7	21,482.3	1.0239	8.5	63.8	29
6	21.81	97	62,210	29,582.7	32,627.3	1.0369	8.6	64.6	27
8	29.44	96	84,000	39,944.5	44,055.5	1.0500	8.8	65.4	26
10	37.27	95	106,300	50,548.4	55,751.6	1.0633	8.9	66.3	24
12	45.28	94	129,200	61,438.5	67,761.5	1.0768	9.0	67.1	22
14	53.51	93	152,700	72,613.4	80,086.6	1.0905	9.1	68.0	20
16	61.95	92	176,700	84,026.1	92,673.9	1.1043	9.2	68.8	17
18	70.56	91	201,300	95,724.2	105,575.8	1.1185	9.3	69.7	15
20	79.42	90	226,600	107,755.1	118,844.9	1.1328	9.4	70.9	13
22	88.49	89	252,400	120,023.7	132,376.3	1.1474	9.6	71.5	34
24	97.78	88	279,000	132,672.9	146,327.1	1.1623	9.7	72.4	59

CALCIUM CHLORIDE SOLUTIONS

CaCl2 Conc. (% by wt)	CaCl2 per bbl of Sol. (ppb)	Water Content (% by vol)	Density			Freezing Point Degrees F
			(sp gr)	(ppg)	(pcf)	
1	3	99	1.007	8.4	62.8	+31
3	13	99	1.030	8.6	64.3	+28
7	24	98	1.055	8.8	65.8	+25
9	35	98	1.079	9.0	67.3	+21
11	46	97	1.103	9.2	68.8	+17
14	58	96	1.127	9.4	70.3	+12
16	70	85	1.151	9.6	71.8	+6
19	81	94	1.175	9.8	73.3	0
21	94	93	1.199	10.0	74.8	-8
23	106	92	1.223	10.2	76.3	-18
26	118	91	1.247	10.4	77.8	-29
28	130	90	1.271	10.6	79.3	-43
30	142	89	1.295	10.8	80.8	-59
32	154	88	1.319	11.0	82.3	-22
34	167	86	1.343	11.2	83.8	0
36	180	85	1.367	11.4	85.3	+27
38	192	84	1.391	11.6	86.8	+44