

Table 1. Sodium Chloride Brine Tables for Brine at 60°F

(1) Salometer Degrees	(2) Freezing Point Deg. F. ^a	(3) Percent Sodium Chloride by Wt.	(4) Pounds Salt Per Gallon of Water	(5) Pounds per Gallon of Brine	(6) Gallon Water Per Gal. of Brine	(7) Specific Gravity	(8) Salometer Degrees
				NaCl	Water		
0	+32.0	.000	.000	.000	8.328	1.000	0
2	+31.5	.528	.044	.044	8.318	.999	2
4	+31.1	1.056	.089	.089	8.297	.996	4
6	+30.5	1.584	.134	.133	8.287	.995	6
8	+30.0	2.112	.179	.178	8.275	.993	8
10	+29.3	2.640	.226	.224	8.262	.992	10
12	+28.8	3.167	.273	.270	8.250	.990	12
14*	+28.2	3.695	.320	.316	8.229	.988	14*
16	+27.6	4.223	.367	.362	8.216	.987	16
18	+27.0	4.751	.415	.409	8.202	.985	18
20	+26.4	5.279	.464	.456	8.188	.983	20
22	+25.7	5.807	.512	.503	8.175	.982	22
24	+25.1	6.335	.563	.552	8.159	.980	24
26	+24.4	6.863	.614	.600	8.144	.978	26
28	+23.7	7.391	.665	.649	8.129	.976	28
30	+23.0	7.919	.716	.698	8.113	.974	30
32	+22.3	8.446	.768	.747	8.097	.972	32
34	+21.6	8.974	.821	.797	8.081	.970	34
36	+20.9	9.502	.875	.847	8.064	.968	36
38	+20.2	10.030	.928	.897	8.047	.966	38
40	+19.4	10.558	.983	.948	8.030	.964	40
42	+18.7	11.086	1.039	.999	8.012	.962	42
44	+17.9	11.614	1.094	1.050	7.994	.960	44
46	+17.1	12.142	1.151	1.102	7.976	.958	46
48	+16.2	12.670	1.208	1.154	7.957	.955	48
50	+15.4	13.198	1.266	1.207	7.937	.953	50
52	+14.5	13.725	1.325	1.260	7.918	.951	52
54	+13.7	14.253	1.385	1.313	7.898	.948	54
56	+12.8	14.781	1.444	1.366	7.878	.946	56
58	+11.8	15.309	1.505	1.420	7.858	.943	58
60	+10.9	15.837	1.568	1.475	7.836	.941	60
62	+9.9	16.365	1.629	1.529	7.815	.938	62
64	+8.9	16.893	1.692	1.584	7.794	.936	64
66	+7.9	17.421	1.756	1.639	7.772	.933	66
68	+6.8	17.949	1.822	1.697	7.755	.931	68
70	+5.7	18.477	1.888	1.753	7.733	.929	70
72	+4.6	19.004	1.954	1.809	7.710	.926	72
74	+3.4	19.532	2.022	1.866	7.686	.923	74
76	+2.2	20.060	2.091	1.925	7.669	.921	76
78	+1.0	20.588	2.159	1.982	7.645	.918	78
80	-.4	21.116	2.229	2.040	7.620	.915	80
82	-1.6	21.644	2.300	2.098	7.596	.912	82
84	-3.0	22.172	2.372	2.158	7.577	.910	84
86	-4.4	22.700	2.446	2.218	7.551	.907	86
88	-5.8	23.228	2.520	2.279	7.531	.904	88
88.3 ^b	-6.0 ^b	23.307	2.531	2.288	7.528	.904	88.3 ^b
90	-1.1	23.756	2.594	2.338	7.506	.901	90
92	+4.8	24.283	2.670	2.398	7.479	.898	92
94	+11.1	24.811	2.745	2.459	7.460	.896	94
95	+14.4	25.075	2.787	2.491	7.444	.894	95
96	+18.0	25.339	2.827	2.522	7.430	.892	96
97	+21.6	25.603	2.865	2.552	7.417	.891	97
98	+25.5	25.867	2.906	2.585	7.409	.890	98
99	+29.8	26.131	2.947	2.616	7.394	.888	99
99.6	+32.3	26.289	2.970	2.634	7.386	.887	99.6
100 ^c	+60.0 ^c	26.395 ^c	2.987	2.647	7.380	.886	100 ^c

The above table applies to brine tested at 60°F. For other brine temperatures the observed salometer readings must be converted before using them in the table. For practical purposes, add one degree salometer for each 10 degrees above 60°F and deduct one degree salometer for each 10 degrees below 60°F.

* Approximate salinity range for seawater.

^a Temperature at which freezing begins. Ice forms, brine concentrates, and freezing point lowers to eutectic.

^b Eutectic point. For brines stronger than eutectic, the temperatures shown are the saturation temperatures for sodium chloride dihydrate. Brines stronger than eutectic deposit excess sodium chloride as dihydrate when cooled, and freeze at eutectic.

^c Saturated brine at 60°F.