Effective October 3, 1999
Supersedes August 1, 1986

TABLE OF CONDUCTIVITY VS CONCENTRATION FOR COMMON SOLUTIONS

Conductivity (G) in microsiemen/centimetre (micromho/cm) at 25°C (77°F)

Weight %	ppm mg/litre	Sodium Chloride, NaCl	Sodium Hydroxide, NaOH	Hydrochloric Acid, HCl	Sulfuric Acid, H_2SO_4	Nitric Acid, HNO_3	Hydrofluoric Acid, HF	Acetic Acid (a), CH_3COOH
0.0001	1	2.2	6.2	11.7	8.8	6.8	10	4.2
0.0003	3	6.5	18.4	35.0	26.1	20	30	7.4
0.001	10	21.4	61.1	116	85.6	67	99	15.5
0.003	30	64	182	340	251	199	290	30.6
0.01	100	210	603	1 140	805	657	630	63
0.03	300	617	1 780	3 390	2 180	1 950	1 490	114
0.1	1 000	1 990	5 820	11 100	6 350	6 380	2 420	209
0.3	3 000	5 690	16 200	32 200	15 800	18 900	5 100	368
1.0	10 000	17 600	53 200	103 000	48 500	60 000	11 700	640
3.0	Rarely Used	48 600	144 000	283 000	141 000	172 000	34 700	1 120
5.0	Rarely Used	78 300	223 000	432 000	237 000	275 000	62 000	1 230
10.0	Rarely Used	140 000	358 000	709 000	427 000	498 000	118 000	1 530
20.0	Rarely Used	226 000	414 000	850 000	709 000	763 000	232 300	1 600
30.0	Rarely Used	Saturated	292 000	732 000	828 000	861 000	390 000	1 405
40.0	Rarely Used	Saturated	191 000	Saturated	770 000	820 000	N/A	1 080
50.0	Rarely Used	Saturated	150 000	Saturated	620 000	717 000	N/A	740
75.0	Rarely Used	Saturated	Saturated	Saturated	182 000	340 000	7.8 (0°C)	168
100.0	Rarely Used	Saturated	Saturated	Saturated	10 000	50 000	4 (0°C)	< 1
Point of Maximum Solubility	---	26%	About 50%	37%	---	---	---	---
Point(s) of Maximum Conductivity	---	26%	16%	18.5%	31% 92.5%	31%	About 35%	19%
Maximum Conductivity	---	244 000	412 000	852 000	830 000 139 000	862 000	N/A	1 600

(a) HAc data at 18°C

TABLE OF CONDUCTIVITY VS CONCENTRATION FOR COMMON SOLUTIONS

Conductivity (G) in microsiemen/centimetre (micromho/cm) at 25°C (77°F)

Weight %	ppm mg/litre	Phosphoric Acid, H_3PO_4	Ammonium Hydroxide, NH_4OH	Ammonia, NH_3	Calcium Chloride, CaCl2	Potassium Nitrate, KNO_3	Cupric Sulfate, $CuSO_4$	Carbon Dioxide, CO_2	Sulfur Dioxide, SO_2
0.0001	1	3.9	4.1	6.6	2.4	1.3	0.6	1.2	6.4
0.0003	3	11.5	8.3	14	6.7	4	1.8	1.9	18
0.001	10	36.5	17	27	24	13	6	3.9	54
0.003	30	107	31	49	71	39	18	6.8	150
0.01	100	342	58	84	230	130	58	12	450
0.03	300	890	102	150	670	390	160	20	1 200
0.1	1 000	2 250	189	275	2 080	1 300	500	39	3 600
0.3	3 000	4 820	329	465	5 900	3 700	1 450	Saturated	7 900
1.0	10 000	10 500	490	810	18 000	11 500	4 600	Saturated	17 200
3.0	Rarely Used	23 000	790	1 110	50 000	32 000	13 000	Saturated	32 700
5.0	Rarely Used	35 000	958	1 115	74 000	52 000	21 500	Saturated	42 000
10.0	Rarely Used	60 700	1 115	1 120	130 000	95 500	36 500	Saturated	61 000
20.0	Rarely Used	123 000	968	435	195 000	171 000	Saturated	Saturated	Saturated
30.0	Rarely Used	182 000	725	Saturated	190 000	Saturated	Saturated	Saturated	Saturated
40.0	Rarely Used	223 000	460	Saturated	120 000	Saturated	Saturated	Saturated	Saturated
50.0	Rarely Used	231 000	285	Saturated	Saturated	Saturated	Saturated	Saturated	Saturated
75.0	Rarely Used	135 000	Saturated	Saturated	Saturated	Saturated	Saturated	Saturated	Saturated
100.0	Rarely Used	48 000 EST	---	< 1	Saturated	Saturated	Saturated	< 1	< 1
Point of Maximum Solubility	---	---	13.6% (1 atmosphere)	28% (1 atmosphere)	46%	22%	17.5%	0.15% (1 atmosphere)	11.7% (1 atmosphere)
Point of Maximum Conductivity	---	47%	2.67%	5.5%	24%	22%	17.5%	0.15%	11.7%
Maximum Conductivity	---	234 000	1 120 (18°C)	1 120 (18°C)	204 000	185 000	52 000	48	66 000

Conductance [Micromho/cm @ 25°C (77°F)]	Resistance [Ohm-cm @ 25°C (77°F)]	Dissolved Solids (ppm)
0.055	18 300 000	0
0.056	18 000 000	0.00042
0.063	16 000 000	0.00363
0.071	14 000 000	0.00776
0.083	12 000 000	0.0133
0.100	10 000 000	0.0210
0.125	8 000 000	0.0325
0.167	6 000 000	0.052
0.2	5 000 000	0.067
0.25	4 000 000	0.090
0.5	2 000 000	0.206
1	1 000 000	0.44
2	500 000	0.90
4	250 000	1.8
6	166 667	2.7
8	125 000	3.7
10	100 000	4.6
12	83 333	5.5
14	71 428	6.4
16	62 500	7.4
18	55 555	8.3
20	50 000	9.2
22	45 454	10.1
24	41 666	11
26	38 461	12
28	35 714	13
30	33 333	14
40	25 000	19
50	20 000	23
60	16 667	28
70	14 286	32
80	12 500	37
100	10 000	47
120	8 333	57
140	7 143	66
160	6 250	75
180	5 556	85
200	5 000	91

Conductance [Micromho/cm @ 25°C (77°F)]	Resistance [Ohm-cm @ 25°C (77°F)]	Dissolved Solids (a) (ppm)	Grains per Gallon (a) (G.P.G.)
250	4 000	117	6.8
300	3 333	140	8.2
400	2 500	190	11
500	2 000	237	14
600	1 667	288	17
700	1 429	341	20
800	1 250	391	23
900	1 111	445	26
1 000	1 000	495	29
1 500	667	747	44
2 000	500	1 000	58
3 000	333	1 520	89
4 000	250	2 065	121
5 000	200	2 650	155
6 000	167	3 150	184
7 000	143	3 756	219
8 000	125	4 270	249
9 000	111	4 850	283
10 000	100	5 400	315
20 000	50	10 800	631

(a) ppm and G.P.G. expressed as sodium chloride. (Corresponding figures for calcium carbonate are obtained by multiplying NaCl values by 0.856.)