

1 ACETIC ACID, CH₃COOH

MOLECULAR WEIGHT = 60.05
RELATIVE SPECIFIC REFRACTIVITY = 1.065

0.00 % by wt. data are the same for all compounds.
For Values of 0.00 wt. %, solutions see Table 1, Acetic Acid.

A ₀ ⁿ by wt.	ρ D ₄ ²⁰	D ₂₀ ²⁰	C _w g/l	M g-mol/l	C _w g/l	(C ₀ - C _w) g/l	(n - n ₀) × 10 ⁴	n	Δ °C	O Os/kg	S g-mol/l	η/η_0	η/ρ cS	ϕ rhe	γ mmho/cm	T g-mol/l
0.00	0.9982	1.0000	0.0	0.000	998.2	0.0	0	1.3330	0.000	0.000	0.000	1.000	1.004	99.80	0.0	0.000
0.50	0.9989	1.0007	5.0	0.083	993.9	4.3	4	1.3334	0.159	0.086	0.045	1.010	1.013	98.81	0.3	0.003
1.00	0.9996	1.0014	10.0	0.166	989.6	8.6	7	1.3337	0.317	0.170	0.091	1.020	1.022	97.84	0.6	0.006
1.50	1.0003	1.0021	15.0	0.250	985.3	12.9	11	1.3341	0.474	0.255	0.137	1.030	1.032	96.90	0.7	0.007
2.00	1.0011	1.0028	20.0	0.333	981.0	17.2	15	1.3345	0.630	0.339	0.183	1.040	1.041	95.96	0.8	0.008
2.50	1.0018	1.0035	25.0	0.417	976.7	21.5	18	1.3348	0.786	0.423	0.229	1.050	1.051	95.02	0.9	0.009
3.00	1.0025	1.0042	30.1	0.501	972.4	25.9	22	1.3352	0.942	0.507	0.275	1.061	1.060	94.07	1.0	0.010
3.50	1.0031	1.0049	35.1	0.585	968.0	30.2	26	1.3355	1.099	0.591	0.321	1.072	1.070	93.14	1.1	0.010
4.00	1.0038	1.0056	40.2	0.669	963.7	34.5	29	1.3359	1.256	0.675	0.367	1.082	1.080	92.24	1.1	0.011
4.50	1.0045	1.0063	45.2	0.753	959.3	38.9	33	1.3363	1.415	0.761	0.414	1.092	1.090	91.36	1.2	0.011
5.00	1.0052	1.0070	50.3	0.837	955.0	43.3	36	1.3366	1.576	0.847	0.461	1.103	1.099	90.50	1.2	0.012
5.50	1.0059	1.0077	55.3	0.921	950.6	47.6	40	1.3370	1.737	0.934	0.508	1.113	1.109	89.66	1.3	0.012
6.00	1.0066	1.0084	60.4	1.006	946.2	52.0	44	1.3373	1.899	1.021	0.555	1.123	1.118	88.87	1.3	0.013
6.50	1.0073	1.0091	65.5	1.090	941.8	56.4	47	1.3377	2.062	1.108	0.602	1.132	1.126	88.14	1.4	0.013
7.00	1.0080	1.0098	70.6	1.175	937.4	60.8	51	1.3381	2.225	1.196	0.650	1.141	1.134	87.46	1.4	0.013
7.50	1.0087	1.0105	75.7	1.260	933.0	65.2	54	1.3384	2.390	1.285	0.697	1.150	1.142	86.78	1.4	0.014
8.00	1.0093	1.0111	80.7	1.345	928.6	69.6	58	1.3388	2.555	1.374	0.745	1.160	1.152	86.03	1.4	0.014
8.50	1.0100	1.0118	85.9	1.430	924.2	74.1	62	1.3391	2.722	1.463	0.792	1.171	1.162	85.20	1.5	0.014
9.00	1.0107	1.0125	91.0	1.515	919.7	78.5	65	1.3395	2.889	1.553	0.840	1.184	1.173	84.31	1.5	0.014
9.50	1.0114	1.0132	96.1	1.600	915.3	82.9	69	1.3399	3.057	1.644	0.888	1.196	1.185	83.43	1.5	0.015
10.00	1.0121	1.0138	101.2	1.685	910.8	87.4	72	1.3402	3.226	1.734	0.935	1.208	1.196	82.62	1.5	0.015
11.00	1.0134	1.0152	111.5	1.856	901.9	96.3	79	1.3409	3.567	1.918	1.031	1.229	1.215	81.19	1.6	0.015
12.00	1.0147	1.0165	121.8	2.028	893.0	105.3	86	1.3416	3.911	2.103	1.127	1.250	1.234	79.84	1.6	0.016
13.00	1.0161	1.0178	132.1	2.200	884.0	114.3	93	1.3423	4.259	2.290	1.223	1.272	1.255	78.43	1.6	0.016
14.00	1.0174	1.0192	142.4	2.372	874.9	123.3	100	1.3430	4.611	2.479	1.320	1.295	1.275	77.07	1.7	0.016
15.00	1.0187	1.0205	152.8	2.545	865.9	132.4	107	1.3437	4.967	2.670	1.415	1.317	1.295	75.79	1.7	0.016
16.00	1.0200	1.0218	163.2	2.718	856.8	141.5	114	1.3444	5.33	2.86	1.511	1.338	1.314	74.59	1.7	0.016
17.00	1.0213	1.0231	173.6	2.891	847.6	150.6	121	1.3451	5.69	3.06	1.607	1.357	1.331	73.54	1.7	0.017
18.00	1.0225	1.0243	184.1	3.065	838.5	159.8	128	1.3458	6.06	3.26	1.703	1.377	1.349	72.48	1.7	0.017
19.00	1.0238	1.0256	194.5	3.239	829.3	169.0	135	1.3465	6.43	3.46	1.798	1.402	1.372	71.18	1.7	0.017
20.00	1.0250	1.0269	205.0	3.414	820.0	178.2	142	1.3472	6.81	3.66	1.894	1.428	1.396	69.89	1.7	0.017
22.00	1.0275	1.0293	226.1	3.764	801.5	196.8	155	1.3485	7.57	4.07	2.084	1.475	1.438	67.66	1.7	0.017
24.00	1.0299	1.0318	247.2	4.116	782.8	215.5	169	1.3498	8.36	4.49	2.273	1.522	1.481	65.57	1.7	0.016
26.00	1.0323	1.0341	268.4	4.470	763.9	234.3	182	1.3512	9.17	4.93	2.462	1.569	1.523	63.61	1.6	0.015
28.00	1.0346	1.0365	289.7	4.824	744.9	253.3	195	1.3525	10.00	5.38	2.650	1.610	1.559	61.99	1.5	0.015
30.00	1.0369	1.0388	311.1	5.180	725.8	272.4	207	1.3537	10.84	5.83	2.835	1.666	1.610	59.90	1.4	0.014
32.00	1.0391	1.0410	332.5	5.537	706.6	291.6	220	1.3550	11.70	6.29	3.017	1.712	1.651	58.29	1.4	0.013
34.00	1.0413	1.0431	354.0	5.896	687.3	311.0	232	1.3562	12.55	6.75	3.192	1.758	1.692	56.77	1.3	0.012
36.00	1.0434	1.0452	375.6	6.255	667.8	330.5	245	1.3574	13.38	7.20	3.359	1.808	1.736	55.20	1.2	0.011
38.00	1.0454	1.0473	397.3	6.615	648.2	350.1	257	1.3586				1.848	1.771	54.00	1.1	0.011
40.00	1.0474	1.0492	419.0	6.977	628.4	369.8	268	1.3598				1.908	1.825	52.31	1.1	0.010
42.00	1.0493	1.0511	440.7	7.339	608.6	389.7	280	1.3610				1.956	1.868	51.02	1.0	0.010
44.00	1.0510	1.0529	462.5	7.701	588.6	409.7	291	1.3621				2.003	1.910	49.83	1.0	0.009
46.00	1.0528	1.0547	484.3	8.065	568.5	429.7	302	1.3632				2.048	1.949	48.73	0.9	0.009
48.00	1.0545	1.0564	506.2	8.429	548.4	449.9	312	1.3642				2.106	2.001	47.39	0.8	0.008
50.00	1.0562	1.0581	528.1	8.794	528.1	470.1	323	1.3653				2.154	2.043	46.33	0.8	0.007
52.00	1.0577	1.0596	550.0	9.159	507.7	490.5	333	1.3663				2.208	2.092	45.20	0.7	0.007
54.00	1.0592	1.0611	572.0	9.525	487.2	511.0	343	1.3673				2.260	2.138	44.16	0.7	0.006
56.00	1.0605	1.0624	593.9	9.890	466.6	531.6	352	1.3682				2.303	2.176	43.33	0.5	0.005
58.00	1.0618	1.0636	615.8	10.255	445.9	552.3	361	1.3691				2.355	2.222	42.38	0.3	0.003
60.00	1.0629	1.0648	637.7	10.620	425.2	573.1	370	1.3700				2.404	2.266	41.51	0.4	0.004
62.00	1.0640	1.0659	659.7	10.985	404.3	593.9	378	1.3708				2.451	2.308	40.72		
64.00	1.0650	1.0668	681.6	11.350	383.4	614.8	386	1.3716				2.497	2.349	39.97		
66.00	1.0659	1.0678	703.5	11.715	362.4	635.8	394	1.3724				2.548	2.395	39.17		
68.00	1.0668	1.0687	725.4	12.080	341.4	656.9	402	1.3732				2.589	2.432	38.55		
70.00	1.0673	1.0692	747.1	12.441	320.2	678.0	409	1.3738				2.624	2.463	38.03		
72.00	1.0676	1.0695	768.7	12.800	298.9	699.3	415	1.3745				2.657	2.494	37.56		
74.00	1.0678	1.0697	790.2	13.158	277.6	720.6	421	1.3751				2.682	2.517	37.21		
76.00	1.0680	1.0699	811.7	13.516	256.3	741.9	427	1.3757				2.709	2.542	36.84		
78.00	1.0681	1.0700	833.1	13.875	235.0	763.2	432	1.3762				2.715	2.547	36.76		
80.00	1.0680	1.0699	854.4	14.227	213.6	784.6	437	1.3767				2.715	2.547	36.76		
82.00	1.0677	1.0696	875.5	14.579	192.2	806.0	441	1.3770				2.691	2.525	37.09		
84.00	1.0673	1.0692	896.5	14.928	170.8	827.4	443	1.3773				2.653	2.491	37.62		
86.00	1.0666	1.0685	917.3	15.275	149.3	848.9	444	1.3774				2.591	2.434	38.52		
88.00	1.0658	1.0677	937.9	15.618	127.9	870.3	444	1.3774				2.506	2.356	39.82		
90.00	1.0644	1.0663	958.0	15.953	106.4	891.8	441	1.3771				2.381	2.241	41.92		
92.00	1.0629	1.0648	977.9	16.284	85.0	913.2	436	1.3766				2.236	2.108	44.63		
94.00	1.0606	1.0625	997.0	16.602	63.6	934.6	429	1.3759				2.032	1.920	49.11		
96.00	1.0578	1.0597	1015.5	16.912	42.3	955.9	418	1.3748				1.809	1.714	55.17		
98.00	1.0538	1.0557	1032.7	17.196	21.1	977.1	404	1.3734				1.532	1.457	65.14		
100.00	1.0477	1.0496	1047.7	17.446	0.0	998.2	386	1.3716				1.221	1.168	81.73		

2 ACETONE, CH₃COCH₃

MOLECULAR WEIGHT = 58.05
RELATIVE SPECIFIC REFRACTIVITY = 1.349

0.00 % by wt. data are the same for all compounds.
For Values of 0.00 wt. %, solutions see Table 1, Acetic Acid.

A ₀ ⁿ by wt.	ρ D ₄ ²⁰	D ₂₀ ²⁰	C _w g/l	M g-mol/l	C _w g/l
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