

HEATING VENTILATING AIR CONDITIONING GUIDE 1939

TABLE 3. PROPERTIES OF METHYL CHLORIDE

SAT. TEMP. F	ABS. PRESS. LB. PER SQ. IN.	VOLUME		HEAT CONTENT AND ENTROPY TAKEN FROM -40 F							
				Heat Content		Entropy		100 F Superheat		200 F Superheat	
		Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Ht. Ct.	Entropy	Ht. Ct.	Entropy
0	18.73	0.0162	5.052	14.4	192.4	0.0328	0.4197	215.6	0.467	237.2	0.507
2	19.60	0.0162	4.856	15.1	193.1	0.0344	0.4196	216.2	0.466	237.7	0.505
4	20.47	0.0163	4.661	15.8	193.8	0.0360	0.4195	216.7	0.465	238.2	0.504
6	21.39	0.0163	4.476	16.2	194.1	0.0368	0.4195	217.0	0.464	238.5	0.503
8	22.34	0.0164	4.303	16.6	194.4	0.0376	0.4194	217.3	0.464	238.8	0.502
10	23.30	0.0164	4.129	17.3	195.1	0.0391	0.4193	217.9	0.463	239.4	0.501
12	24.38	0.0164	3.984	18.1	195.8	0.0407	0.4192	218.5	0.463	240.0	0.500
14	25.46	0.0164	3.839	18.8	196.3	0.0423	0.4184	219.0	0.462	240.5	0.499
16	26.55	0.0165	3.693	19.6	196.7	0.0439	0.4176	219.5	0.462	241.0	0.498
18	27.63	0.0165	3.548	20.3	197.2	0.0454	0.4168	220.0	0.461	241.5	0.498
20	28.71	0.0166	3.403	21.1	197.6	0.0472	0.4160	220.5	0.461	242.0	0.497
22	29.98	0.0166	3.258	21.8	198.1	0.0486	0.4152	221.0	0.460	242.5	0.496
24	31.25	0.0166	3.112	22.5	198.5	0.0501	0.4148	221.5	0.459	243.0	0.495
26	32.53	0.0167	3.057	23.2	198.9	0.0516	0.4143	222.0	0.459	243.6	0.495
28	33.80	0.0167	2.941	24.0	199.3	0.0532	0.4139	222.4	0.458	244.1	0.494
30	35.07	0.0168	2.826	24.8	199.7	0.0547	0.4134	222.9	0.458	244.7	0.494
32	36.55	0.0168	2.734	25.5	200.1	0.0562	0.4130	223.4	0.457	245.2	0.493
34	38.03	0.0169	2.642	26.2	200.5	0.0577	0.4124	223.9	0.456	245.7	0.492
36	39.51	0.0169	2.549	27.0	200.9	0.0592	0.4118	224.3	0.455	246.2	0.492
38	40.99	0.0169	2.457	27.7	201.4	0.0607	0.4111	224.8	0.455	246.7	0.491
40	42.47	0.0170	2.365	28.5	201.8	0.0622	0.4105	225.2	0.454	247.2	0.491
42	43.33	0.0170	2.282	29.2	202.2	0.0637	0.4099	225.5	0.453	247.7	0.490
44	44.18	0.0171	2.290	29.9	202.6	0.0651	0.4093	225.7	0.453	248.0	0.490
46	45.89	0.0171	2.216	30.7	203.0	0.0666	0.4087	226.1	0.452	248.3	0.489
48	47.61	0.0171	2.141	31.4	203.3	0.0680	0.4081	226.6	0.451	248.8	0.489
50	49.32	0.0172	2.067	32.2	203.7	0.0695	0.4075	227.0	0.450	249.3	0.488
52	51.03	0.0172	1.992	32.9	204.1	0.0709	0.4069	227.5	0.449	249.8	0.487
54	52.74	0.0173	1.931	33.7	204.4	0.0724	0.4063	227.9	0.448	250.1	0.486
56	54.97	0.0173	1.870	34.4	204.7	0.0739	0.4056	228.2	0.448	250.5	0.486
58	56.94	0.0173	1.810	35.2	205.1	0.0754	0.4050	228.6	0.447	250.9	0.485
60	58.91	0.0173	1.749	35.9	205.4	0.0769	0.4043	228.9	0.447	251.2	0.485
62	60.88	0.0174	1.688	36.7	205.7	0.0784	0.4037	229.3	0.446	251.6	0.484
64	63.13	0.0174	1.638	37.4	206.0	0.0798	0.4030	229.6	0.445	252.0	0.483
66	65.37	0.0174	1.588	38.2	206.3	0.0812	0.4024	229.9	0.444	252.3	0.483
68	67.62	0.0175	1.539	38.9	206.6	0.0827	0.4017	230.3	0.443	252.6	0.482
70	69.86	0.0175	1.489	39.7	206.9	0.0841	0.4011	230.6	0.442	252.9	0.482
72	72.11	0.0176	1.439	40.4	207.2	0.0855	0.4004	231.0	0.441	253.2	0.481
74	74.66	0.0176	1.398	41.1	207.5	0.0869	0.3998	231.3	0.440	253.5	0.480
76	77.21	0.0177	1.357	41.9	207.7	0.0883	0.3992	231.6	0.439	253.8	0.480
78	79.76	0.0177	1.315	42.6	208.0	0.0898	0.3985	232.0	0.439	254.1	0.479
80	82.31	0.0178	1.274	43.4	208.2	0.0912	0.3979	232.3	0.438	254.4	0.479
82	84.86	0.0178	1.233	44.1	208.5	0.0926	0.3973	232.6	0.437	254.7	0.478
84	87.74	0.0178	1.199	44.8	208.7	0.0940	0.3967	233.0	0.436	255.0	0.478
86	90.62	0.0179	1.165	45.6	209.0	0.0953	0.3960	233.3	0.435	255.3	0.477
88	93.50	0.0179	1.130	46.3	209.2	0.0967	0.3954	233.6	0.435	255.6	0.477
90	96.38	0.0180	1.096	47.1	209.5	0.0980	0.3947	233.9	0.434	255.9	0.476
92	99.26	0.0180	1.062	47.8	209.7	0.0994	0.3941	234.2	0.433	256.2	0.476
94	102.49	0.0180	1.033	48.6	209.9	0.1008	0.3935	234.5	0.433	256.5	0.476
96	105.72	0.0181	1.005	49.3	210.2	0.1022	0.3929	234.8	0.432	256.8	0.475
98	108.94	0.0181	0.9764	50.1	210.4	0.1035	0.3922	235.1	0.432	257.1	0.475
100	112.17	0.0182	0.9478	50.8	210.7	0.1049	0.3916	235.4	0.431	257.4	0.474
102	115.40	0.0182	0.9193	51.6	210.9	0.1063	0.3910	235.7	0.431	257.7	0.474
104	118.63	0.0183	0.8952	52.3	211.1	0.1076	0.3903	236.0	0.430	258.0	0.474
106	122.60	0.0183	0.8712	53.1	211.3	0.1090	0.3897	236.3	0.430	258.3	0.473
108	126.20	0.0184	0.8471	53.8	211.4	0.1103	0.3890	236.6	0.429	258.6	0.473
110	129.80	0.0184	0.8231	54.6	211.6	0.1117	0.3884	236.9	0.429	258.9	0.472
112	133.40	0.0185	0.7990	55.3	211.8	0.1130	0.3877	237.2	0.428	259.2	0.472
114	137.42	0.0185	0.7786	56.1	212.0	0.1144	0.3871	237.5	0.427	259.5	0.471
116	141.44	0.0185	0.7583	56.8	212.2	0.1157	0.3864	237.8	0.427	259.8	0.470
118	145.46	0.0186	0.7379	57.6	212.4	0.1171	0.3858	238.1	0.426	260.1	0.470
120	149.48	0.0186	0.7176	58.3	212.6	0.1184	0.3851	238.4	0.426	260.4	0.469
122	153.50	0.0187	0.6972	59.1	212.8	0.1198	0.3845	238.7	0.425	260.7	0.468

CHAPTER 2. REFRIGERANTS AND AIR DRYING AGENTS

TABLE 4. PROPERTIES OF CARBON DIOXIDE

Sat. Temp. F	Abs. Press. Lb per Sq In.	VOLUME		HEAT CONTENT AND ENTROPY TAKEN FROM -40 F							
		Liquid	Vapor	Heat Content		Entropy		50 F Superheat		100 F Superheat	
				Liquid	Vapor	Liquid	Vapor	Ht. Ct.	Entropy	Ht. Ct.	Entropy
0	305.5	0.01570	0.29040	18.8	138.9	0.0418	0.3024	153.7	0.3342	167.5	0.3612
2	315.9	0.01579	0.28030	19.8	138.8	0.0440	0.3014	153.7	0.3330	167.6	0.3600
4	326.5	0.01588	0.27070	20.8	138.8	0.0461	0.3005	153.7	0.3318	167.7	0.3588
5	332.0	0.01592	0.26610	21.3	138.8	0.0472	0.3000	153.7	0.3312	167.7	0.3582
6	337.4	0.01596	0.26140	21.8	138.7	0.0483	0.2994	153.7	0.3306	167.8	0.3576
8	348.7	0.01605	0.25260	22.9	138.7	0.0504	0.2982	153.7	0.3293	167.9	0.3563
10	360.2	0.01614	0.24370	24.0	138.7	0.0526	0.2970	153.7	0.3281	168.0	0.3550
12	371.9	0.01623	0.23540	25.0	138.6	0.0548	0.2958	153.7	0.3270	168.1	0.3538
14	383.9	0.01632	0.22740	26.1	138.6	0.0571	0.2946	153.7	0.3259	168.2	0.3526
16	396.2	0.01642	0.21970	27.2	138.5	0.0593	0.2933	153.7	0.3249	168.3	0.3513
18	408.9	0.01652	0.21210	28.3	138.4	0.0616	0.2921	153.7	0.3238	168.5	0.3501
20	421.8	0.01663	0.20490	29.4	138.3	0.0638	0.2909	153.7	0.3227	168.6	0.3489
22	434.0	0.01673	0.19790	30.5	138.2	0.0662	0.2897	153.7	0.3214	168.7	0.3479
24	446.4	0.01684	0.19120	31.7	138.1	0.0686	0.2885	153.7	0.3202	168.8	0.3470
26	462.2	0.01695	0.18460	32.9	138.0	0.0710	0.2873	153.7	0.3189	168.9	0.3460
28	476.3	0.01707	0.17830	34.1	137.9	0.0734	0.2861	153.7	0.3177	169.0	0.3451
30	490.8	0.01719	0.17220	35.4	137.8	0.0758	0.2849	153.7	0.3164	169.1	0.3441
32	505.5	0.01731	0.16630	36.7	137.7	0.0781	0.2834	153.7	0.3158	169.2	0.3431
34	522.6	0.01744	0.16030	37.9	137.4	0.0804	0.2820	153.7	0.3151	169.3	0.3421
36	536.0	0.01759	0.15500	39.1	137.2	0.0828	0.2805	153.7	0.3145	169.4	0.3411
38	551.7	0.01773	0.14960	40.4	136.9	0.0851	0.2791	153.7	0.3138	169.5	0.3401
39	559.7	0.01780	0.14700	41.0	136.8	0.0862	0.2783	153.7	0.3135	169.5	0.3396
40	567.8	0.01787	0.14440	41.7	136.7	0.0874	0.2776	153.7	0.3132	169.6	0.3391
41	576.0	0.01794	0.14185	42.3	136.5	0.0887	0.2768	153.7	0.3127	169.6	0.3386
42	584.3	0.01801	0.13930	42.9	136.3	0.0899	0.2761	153.7	0.3122	169.7	0.3381
44	601.1	0.01817	0.13440	44.3	136.1	0.0924	0.2745	153.7	0.3112	169.8	0.3371
46	618.2	0.01834	0.12970	45.6	135.7	0.0950	0.2730	153.7	0.3101	169.9	0.3362
48	635.7	0.01851	0.12500	47.0	135.4	0.0975	0.2714	153.7	0.3091	170.0	0.3352
50	653.6	0.01868	0.12050	48.4	135.0	0.1000	0.2699	153.7	0.3081	170.1	0.3342
52	671.9	0.01887	0.11610	49.8	134.5	0.1027	0.2681	153.7	0.3069	170.2	0.3333
54	690.6	0.01906	0.11170	51.2	133.9	0.1054	0.2663	153.7	0.3057	170.3	0.3324
56	709.5	0.01927	0.10750	52.6	133.4	0.1081	0.2644	153.7	0.3046	170.5	0.3315
58	728.8	0.01948	0.10340	54.0	132.7	0.1108	0.2626	153.7	0.3034	170.6	0.3306
60	748.6	0.01970	0.09940	55.5	132.1	0.1135	0.2608	153.7	0.3022	170.7	0.3297
62	769.0	0.01995	0.09545	57.0	131.3	0.1164	0.2584	153.7	0.3012	170.8	0.3289
64	789.4	0.02020	0.09180	58.6	130.6	0.1194	0.2560	153.7	0.3002	170.9	0.3281
66	810.3	0.02048	0.08800	60.2	129.7	0.1223	0.2535	153.7	0.2991	171.0	0.3273
68	831.6	0.02079	0.08422	61.9	128.7	0.1253	0.2511	153.7	0.2981	171.1	0.3265
70	853.4	0.02112	0.08040	63.7	127.5	0.1282	0.2487	153.7	0.2971	171.2	0.3257
72	875.8	0.02152	0.07654	65.5	126.0	0.1321	0.2450	153.7	0.2962	171.3	0.3250
74	898.2	0.02192	0.07269	67.3	124.5	0.1360	0.2414	153.7	0.2953	171.4	0.3242
76	921.3	0.02242	0.06875	69.4	122.8	0.1398	0.2377	153.7	0.2945	171.5	0.3235
78	944.8	0.02300	0.06473	71.6	120.9	0.1437	0.2341	153.7	0.2936	171.6	0.3227
80	968.7	0.02370	0.06064	73.9	118.7	0.1476	0.2304	153.7	0.2927	171.7	0.3220
82	993.0	0.02456	0.05648	76.4	116.6	0.1578	0.2195	153.7	0.2920	171.8	0.3215
84	1017.7	0.02553	0.05223	79.4	113.9	0.1679	0.2087	153.7	0.2914	176.0	0.3209
86	1043.0	0.02686	0.04789	83.3	110.4	0.1781	0.1978	153.7	0.2907	178.2	0.3204
87.8	1069.9	0.03454	0.03454	97.0	97.0	0.1880	0.1880	153.7	0.2901	180.1	0.3199