

TABLE 2. THERMODYNAMIC PROPERTIES OF MOIST AIR* (STANDARD ATMOSPHERIC PRESSURE, 29.921 IN. Hg) (Continued)

FAHR. TEMP. (°F)	HUMIDITY RATIO $W \times 10^3$	VOLUME CU FT/LB DRY AIR			ENTHALPY BTU/LB DRY AIR			ENTROPY BTU PER (°F) (LB DRY AIR)			CONDENSED WATER		
		CU FT/LB DRY AIR			BTU/LB DRY AIR			BTU PER (°F) (LB DRY AIR)			CONDENSED WATER		
		v_h	v_{hs}	v_g	h_h	h_{hs}	h_g	s_h	s_{hs}	s_g	Enthalpy Btu/Lb h_w	Entropy Btu/Lb s_w	Vap. Press In. Hg $P_s \times 10^3$
7	1.130	11.756	0.031	11.777	1.881	1.202	2.883	0.00364	0.00271	0.00635	-155.01	-0.3172	5.4032
8	1.189	11.761	0.032	11.803	1.922	1.266	3.188	0.00415	0.00286	0.00668	-154.85	-0.3172	5.4822
9	1.251	11.806	0.034	11.830	2.162	1.333	3.494	0.00467	0.00300	0.00699	-154.68	-0.3172	5.5776
10	1.315	11.851	0.035	11.856	2.402	1.401	3.803	0.00518	0.00314	0.00732	-154.51	-0.3172	5.6835
11	1.383	11.857	0.036	11.883	2.642	1.474	4.116	0.00569	0.00328	0.00766	-154.34	-0.3172	5.8005
12	1.454	11.862	0.037	11.910	2.882	1.550	4.432	0.00620	0.00342	0.00800	-154.17	-0.3172	5.9482
13	1.528	11.867	0.038	11.938	3.123	1.626	4.753	0.00671	0.00356	0.00834	-154.00	-0.3172	6.1277
14	1.606	11.873	0.039	11.966	3.363	1.703	5.076	0.00722	0.00370	0.00868	-153.83	-0.3172	6.3299
15	1.687	11.878	0.040	11.994	3.603	1.780	5.403	0.00772	0.00384	0.00902	-153.66	-0.3172	6.5545
16	1.772	11.883	0.041	12.022	3.843	1.857	5.735	0.00822	0.00398	0.00936	-153.49	-0.3172	6.7917
17	1.861	12.009	0.042	12.050	4.083	1.934	6.071	0.00872	0.00412	0.00970	-153.32	-0.3172	7.0415
18	1.953	12.034	0.043	12.072	4.324	2.011	6.412	0.00922	0.00426	0.01004	-153.15	-0.3172	7.3037
19	2.051	12.059	0.044	12.094	4.564	2.088	6.756	0.00972	0.00440	0.01038	-152.98	-0.3172	7.5789
20	2.152	12.084	0.045	12.116	4.804	2.165	7.106	0.01022	0.00454	0.01072	-152.81	-0.3172	7.8662
21	2.258	12.109	0.046	12.138	5.044	2.242	7.460	0.01072	0.00468	0.01106	-152.64	-0.3172	8.1658
22	2.368	12.135	0.047	12.160	5.284	2.319	7.820	0.01122	0.00482	0.01140	-152.47	-0.3172	8.4789
23	2.483	12.160	0.048	12.182	5.525	2.396	8.186	0.01172	0.00496	0.01174	-152.30	-0.3172	8.8055
24	2.606	12.186	0.049	12.204	5.765	2.473	8.557	0.01222	0.00510	0.01208	-152.13	-0.3172	9.1467
25	2.733	12.211	0.050	12.226	6.005	2.550	8.934	0.01272	0.00524	0.01242	-151.96	-0.3172	9.5025
26	2.865	12.236	0.051	12.248	6.245	2.627	9.316	0.01322	0.00538	0.01276	-151.79	-0.3172	9.8739
27	3.003	12.262	0.052	12.270	6.485	2.704	9.706	0.01372	0.00552	0.01310	-151.62	-0.3172	10.2611
28	3.147	12.287	0.053	12.292	6.725	2.781	10.100	0.01422	0.00566	0.01344	-151.45	-0.3172	10.6651
29	3.297	12.313	0.054	12.314	6.965	2.858	10.506	0.01472	0.00580	0.01378	-151.28	-0.3172	11.0873
30	3.454	12.338	0.055	12.336	7.205	2.935	10.916	0.01522	0.00594	0.01412	-151.11	-0.3172	11.5285
31	3.617	12.363	0.056	12.360	7.446	3.012	11.333	0.01572	0.00608	0.01446	-150.94	-0.3172	11.9897
32	3.788	12.388	0.057	12.383	7.686	3.089	11.758	0.01622	0.00622	0.01480	-150.77	-0.3172	12.4619
33	3.964	12.413	0.058	12.408	7.927	3.166	12.189	0.01672	0.00636	0.01514	-150.60	-0.3172	12.9451
34	4.107	12.438	0.059	12.433	8.167	3.243	12.626	0.01722	0.00650	0.01548	-150.43	-0.3172	13.4393
35	4.275	12.464	0.060	12.459	8.407	3.320	13.069	0.01772	0.00664	0.01582	-150.26	-0.3172	13.9545
36	4.460	12.489	0.061	12.484	8.647	3.397	13.516	0.01822	0.00678	0.01616	-150.09	-0.3172	14.4907
37	4.631	12.514	0.062	12.509	8.887	3.474	13.968	0.01872	0.00692	0.01650	-149.92	-0.3172	15.0479

* Compiled by John A. Goff and S. Gratch.

* Extrapolated to represent metastable equilibrium with undercooled liquid.

TABLE 2. THERMODYNAMIC PROPERTIES OF MOIST AIR* (STANDARD ATMOSPHERIC PRESSURE, 29.921 IN. Hg) (Continued)

FAHR. TEMP. (°F)	HUMIDITY RATIO $W \times 10^3$	VOLUME CU FT/LB DRY AIR			ENTHALPY BTU/LB DRY AIR			ENTROPY BTU PER (°F) (LB DRY AIR)			CONDENSED WATER		
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		v_h	v_{hs}	v_g	h_h	h_{hs}	h_g	s_h	s_{hs}	s_g	Enthalpy Btu/Lb h_w	Entropy Btu/Lb s_w	Vap. Press In. Hg $P_s \times 10^3$
38	4.818	12.540	0.063	12.537	9.128	3.551	14.419	0.01922	0.00706	0.03006	9.08	0.0122	0.22004
39	5.012	12.565	0.064	12.562	9.368	3.628	14.867	0.01972	0.00720	0.03040	7.08	0.0142	0.23519
40	5.211	12.590	0.065	12.587	9.608	3.705	15.316	0.02022	0.00734	0.03074	8.00	0.0162	0.25034
41	5.414	12.616	0.066	12.613	9.848	3.782	15.765	0.02072	0.00748	0.03108	9.09	0.0182	0.26549
42	5.638	12.641	0.067	12.638	10.088	3.859	16.214	0.02122	0.00762	0.03142	10.09	0.0202	0.28064
43	5.860	12.666	0.068	12.663	10.328	3.936	16.663	0.02172	0.00776	0.03176	11.10	0.0222	0.29579
44	6.091	12.691	0.069	12.688	10.568	4.013	17.112	0.02222	0.00790	0.03210	12.10	0.0242	0.31094
45	6.331	12.717	0.070	12.714	10.808	4.090	17.561	0.02272	0.00804	0.03244	13.10	0.0262	0.32609
46	6.578	12.742	0.071	12.739	11.048	4.167	18.010	0.02322	0.00818	0.03278	14.10	0.0282	0.34124
47	6.835	12.767	0.072	12.764	11.288	4.244	18.459	0.02372	0.00832	0.03312	15.10	0.0302	0.35639
48	7.100	12.792	0.073	12.789	11.528	4.321	18.908	0.02422	0.00846	0.03346	16.11	0.0322	0.37154
49	7.374	12.818	0.074	12.815	11.768	4.398	19.357	0.02472	0.00860	0.03380	17.11	0.0342	0.38669
50	7.658	12.843	0.075	12.840	12.008	4.475	19.806	0.02522	0.00874	0.03414	18.11	0.0362	0.40184
51	7.952	12.868	0.076	12.865	12.248	4.552	20.255	0.02572	0.00888	0.03448	19.11	0.0382	0.41699
52	8.256	12.894	0.077	12.891	12.488	4.629	20.704	0.02622	0.00902	0.03482	20.11	0.0402	0.43214
53	8.569	12.919	0.078	12.916	12.728	4.706	21.153	0.02672	0.00916	0.03516	21.12	0.0422	0.44729
54	8.894	12.944	0.079	12.941	12.968	4.783	21.602	0.02722	0.00930	0.03550	22.12	0.0442	0.46244
55	9.229	12.970	0.080	12.967	13.208	4.860	22.051	0.02772	0.00944	0.03584	23.12	0.0462	0.47759
56	9.575	13.000	0.081	13.000	13.448	4.937	22.500	0.02822	0.00958	0.03618	24.12	0.0482	0.49274
57	9.934	13.020	0.082	13.020	13.688	5.014	22.949	0.02872	0.00972	0.03652	25.12	0.0502	0.50789
58	10.300	13.045	0.083	13.045	13.928	5.091	23.398	0.02922	0.00986	0.03686	26.12	0.0522	0.52304
59	10.689	13.071	0.084	13.071	14.168	5.168	23.847	0.02972	0.01000	0.03720	27.12	0.0542	0.53819
60	11.089	13.096	0.085	13.096	14.408	5.245	24.296	0.03022	0.01014	0.03754	28.12	0.0562	0.55334
61	11.499	13.121	0.086	13.121	14.648	5.322	24.745	0.03072	0.01028	0.03788	29.12	0.0582	0.56849
62	11.919	13.147	0.087	13.147	14.888	5.399	25.194	0.03122	0.01042	0.03822	30.12	0.0602	0.58364
63	12.349	13.172	0.088	13.172	15.128	5.476	25.643	0.03172	0.01056	0.03856	31.12	0.0622	0.59879
64	12.789	13.197	0.089	13.197	15.372	5.553	26.092	0.03222	0.01070	0.03890	32.12	0.0642	0.61394
65	13.239	13.222	0.090	13.222	15.616	5.630	26.541	0.03272	0.01084	0.03924	33.12	0.0662	0.62909
66	13.700	13.247	0.091	13.247	15.860	5.707	26.990	0.03322	0.01098	0.03958	34.11	0.0682	0.64424
67	14.174	13.273	0.092	13.273	16.104	5.784	27.439	0.03372	0.01112	0.03992	35.11	0.0702	0.65939
68	14.658	13.298	0.093	13.298	16.348	5.861	27.888	0.03422	0.01126	0.04026	36.11	0.0722	0.67454
69	15.152	13.323	0.094	13.323	16.592	5.938	28.337	0.03472	0.01140	0.04060	37.11	0.0742	0.68969

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