

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

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			FAHR. TEMP. (°F)
		v_a	v_{sa}	h_a	h_{sa}	h_g	s_a	s_{sa}	s_g	Enthalpy Btu/Lb h_w	Entropy Btu/Lb (°F) s_w	Vap. Press In. Hg $p_s \times 10^3$	
-160	0.000120	7.520	0.000	-35.504	0.000	-35.504	-0.10300	0.00000	-0.10300	-222.00	-0.4807	0.0001009	-160
-155	0.000369	7.777	0.000	-37.296	0.000	-37.296	-0.09901	0.00000	-0.09901	-220.40	-0.4853	0.0001342	-155
-150	0.000632	7.902	0.000	-38.088	0.000	-38.088	-0.09508	0.00000	-0.09508	-218.77	-0.4899	0.0003301	-150
-145	0.001219	7.962	0.000	-34.881	0.000	-34.881	-0.09121	0.00000	-0.09121	-217.12	-0.4947	0.0009307	-145
-140	0.002109	8.029	0.000	-33.674	0.000	-33.674	-0.08740	0.00000	-0.08740	-215.44	-0.4995	0.0010004	-140
-135	0.003368	8.156	0.000	-32.468	0.000	-32.468	-0.08358	0.00000	-0.08358	-213.75	-0.5043	0.001707	-135
-130	0.006000	8.283	0.000	-31.263	0.000	-31.263	-0.07977	0.00000	-0.07977	-212.03	-0.5090	0.002333	-130
-125	0.009887	8.411	0.000	-30.057	0.000	-30.057	-0.07634	0.00000	-0.07634	-210.28	-0.5138	0.004710	-125
-120	0.01606	8.537	0.000	-28.852	0.000	-28.852	-0.07277	0.00000	-0.07277	-208.52	-0.5185	0.007633	-120
-115	0.02371	8.664	0.000	-27.644	0.000	-27.644	-0.06924	0.00000	-0.06924	-206.77	-0.5233	0.01133	-115
-110	0.04063	8.792	0.000	-26.444	0.000	-26.444	-0.06577	0.00000	-0.06577	-204.92	-0.5281	0.01639	-110
-105	0.06840	8.919	0.000	-25.240	0.001	-25.240	-0.06234	0.00000	-0.06234	-203.09	-0.5329	0.02328	-105
-100	0.09772	9.046	0.000	-24.037	0.001	-24.037	-0.05897	0.00000	-0.05897	-201.23	-0.5377	0.04065	-100
-95	0.1459	9.173	0.000	-22.833	0.002	-22.833	-0.05552	0.00001	-0.05552	-199.37	-0.5425	0.07111	-95
-90	0.2242	9.300	0.000	-21.631	0.002	-21.631	-0.05207	0.00001	-0.05207	-197.44	-0.5473	0.1071	-90
-85	0.3343	9.428	0.000	-20.428	0.003	-20.428	-0.04863	0.00001	-0.04863	-195.51	-0.5521	0.1897	-85
-80	0.4830	9.555	0.000	-19.223	0.005	-19.223	-0.04519	0.00001	-0.04519	-193.55	-0.5569	0.3256	-80
-75	0.6806	9.682	0.000	-18.018	0.006	-18.018	-0.04174	0.00002	-0.04174	-191.57	-0.5617	0.5411	-75
-70	1.040	9.809	0.000	-16.813	0.007	-16.813	-0.03829	0.00003	-0.03829	-189.57	-0.5665	0.976	-70
-65	1.491	9.933	0.000	-15.617	0.008	-15.617	-0.03483	0.00005	-0.03483	-187.53	-0.5713	1.7130	-65
-60	2.118	10.059	0.000	-14.416	0.009	-14.416	-0.03138	0.00006	-0.03138	-185.47	-0.5761	1.0137	-60
-55	2.992	10.186	0.000	-13.212	0.010	-13.212	-0.02792	0.00009	-0.02792	-183.39	-0.5809	1.570	-55
-50	4.163	10.313	0.001	-12.012	0.011	-12.012	-0.02446	0.00013	-0.02446	-181.27	-0.5857	2.423	-50
-45	4.747	10.364	0.001	-10.805	0.011	-10.805	-0.02100	0.00018	-0.02100	-179.10	-0.5905	3.702	-45
-40	5.408	10.414	0.001	-11.651	0.012	-11.651	-0.01754	0.00024	-0.01754	-176.89	-0.5953	5.464	-40
-35	6.069	10.465	0.001	-10.677	0.013	-10.677	-0.01408	0.00030	-0.01408	-174.62	-0.6001	8.240	-35
-30	6.835	10.516	0.001	-9.703	0.013	-9.703	-0.01062	0.00037	-0.01062	-172.32	-0.6049	12.06	-30
-25	7.725	10.568	0.001	-8.829	0.013	-8.829	-0.00716	0.00044	-0.00716	-170.00	-0.6097	18.06	-25
-20	8.850	10.619	0.002	-8.059	0.014	-8.059	-0.00370	0.00052	-0.00370	-167.65	-0.6145	26.09	-20
-15	10.22	10.670	0.002	-7.389	0.015	-7.389	-0.00024	0.00061	-0.00024	-165.27	-0.6193	38.12	-15
-10	11.85	10.721	0.002	-6.819	0.015	-6.819	0.00032	0.00070	0.00032	-162.89	-0.6241	54.16	-10
-5	13.78	10.772	0.003	-6.349	0.016	-6.349	0.00080	0.00080	0.00080	-160.50	-0.6289	75.20	-5
0	15.92	10.823	0.003	-5.979	0.016	-5.979	0.00128	0.00090	0.00128	-158.11	-0.6337	101.2	0
5	18.27	10.874	0.004	-5.709	0.017	-5.709	0.00176	0.00100	0.00176	-155.72	-0.6385	131.2	5
10	20.82	10.925	0.004	-5.539	0.017	-5.539	0.00224	0.00105	0.00224	-153.33	-0.6433	165.2	10
15	23.57	10.976	0.005	-5.469	0.018	-5.469	0.00272	0.00110	0.00272	-150.94	-0.6481	203.2	15
20	26.52	11.027	0.005	-5.499	0.018	-5.499	0.00320	0.00115	0.00320	-148.55	-0.6529	245.2	20
25	29.67	11.078	0.006	-5.629	0.019	-5.629	0.00368	0.00120	0.00368	-146.16	-0.6577	291.2	25
30	33.02	11.129	0.006	-5.759	0.019	-5.759	0.00416	0.00125	0.00416	-143.77	-0.6625	341.2	30
35	36.57	11.180	0.007	-5.889	0.020	-5.889	0.00464	0.00130	0.00464	-141.38	-0.6673	395.2	35
40	40.32	11.231	0.007	-6.019	0.020	-6.019	0.00512	0.00135	0.00512	-138.99	-0.6721	453.2	40
45	44.27	11.282	0.008	-6.149	0.021	-6.149	0.00560	0.00140	0.00560	-136.60	-0.6769	515.2	45
50	48.42	11.333	0.008	-6.279	0.021	-6.279	0.00608	0.00145	0.00608	-134.21	-0.6817	581.2	50
55	52.77	11.384	0.009	-6.409	0.022	-6.409	0.00656	0.00150	0.00656	-131.82	-0.6865	651.2	55
60	57.32	11.435	0.009	-6.539	0.022	-6.539	0.00704	0.00155	0.00704	-129.43	-0.6913	725.2	60
65	62.07	11.486	0.010	-6.669	0.023	-6.669	0.00752	0.00160	0.00752	-127.04	-0.6961	803.2	65
70	67.02	11.537	0.010	-6.799	0.023	-6.799	0.00800	0.00165	0.00800	-124.65	-0.7009	885.2	70
75	72.17	11.588	0.011	-6.929	0.024	-6.929	0.00848	0.00170	0.00848	-122.26	-0.7057	971.2	75
80	77.52	11.639	0.011	-7.059	0.024	-7.059	0.00896	0.00175	0.00896	-119.87	-0.7105	1061.2	80
85	83.07	11.690	0.012	-7.189	0.025	-7.189	0.00944	0.00180	0.00944	-117.48	-0.7153	1155.2	85
90	88.82	11.741	0.012	-7.319	0.025	-7.319	0.00992	0.00185	0.00992	-115.09	-0.7201	1253.2	90
95	94.77	11.792	0.013	-7.449	0.026	-7.449	0.01040	0.00190	0.01040	-112.70	-0.7249	1355.2	95
100	100.92	11.843	0.013	-7.579	0.026	-7.579	0.01088	0.00195	0.01088	-110.31	-0.7297	1461.2	100
105	107.27	11.894	0.014	-7.709	0.027	-7.709	0.01136	0.00200	0.01136	-107.92	-0.7345	1571.2	105
110	113.82	11.945	0.014	-7.839	0.027	-7.839	0.01184	0.00205	0.01184	-105.53	-0.7393	1685.2	110
115	120.57	12.000	0.015	-7.969	0.028	-7.969	0.01232	0.00210	0.01232	-103.14	-0.7441	1803.2	115
120	127.52	12.051	0.015	-8.099	0.028	-8.099	0.01280	0.00215	0.01280	-100.75	-0.7489	1925.2	120
125	134.67	12.102	0.016	-8.229	0.029	-8.229	0.01328	0.00220	0.01328	-98.36	-0.7537	2051.2	125
130	141.92	12.153	0.016	-8.359	0.029	-8.359	0.01376	0.00225	0.01376	-95.97	-0.7585	2181.2	130
135	149.37	12.204	0.017	-8.489	0.030	-8.489	0.01424	0.00230	0.01424	-93.58	-0.7633	2315.2	135
140	156.92	12.255	0.017	-8.619	0.030	-8.619	0.01472	0.00235	0.01472	-91.19	-0.7681	2453.2	140
145	164.57	12.306	0.018	-8.749	0.031	-8.749	0.01520	0.00240	0.01520	-88.80	-0.7729	2595.2	145
150	172.32	12.357	0.018	-8.879	0.031	-8.879	0.01568	0.00245	0.01568	-86.41	-0.7777	2741.2	150
155	180.27	12.408	0.019	-9.009	0.032	-9.009	0.01616	0.00250	0.01616	-84.02	-0.7825	2891.2	155
160	188.42	12.459	0.019	-9.139	0.032	-9.139	0.01664	0.00255	0.01664	-81.63	-0.7873	3045.2	160
165	196.77	12.510	0.020	-9.269	0.033	-9.269	0.01712	0.00260	0.01712	-79.24	-0.7921	3203.2	165
170	205.32	12.561	0.020	-9.399	0.033	-9.399	0.01760	0.00265	0.01760	-76.85	-0.7969	3365.2	170
175	214.07	12.612	0.021	-9.529	0.034	-9.529	0.01808	0.00270	0.01808	-74.46	-0.8017	3531.2	175
180	222.92	12.663	0.021	-9.659	0.034	-9.659	0.01856	0.00275	0.01856	-72.07	-0.8065	3701.2	180
185	231.87	12.714	0.022	-9.789	0.035	-9.789	0.01904	0.00280	0.01904	-69.68	-0.8113	3875.2	185
190	240.92	12.765	0.022	-9.919	0.035	-9.919	0.01952	0.00285	0.01952	-67.29	-0.8161	4053.2	190
195	250.07	12.816	0.023	-10.049	0.036	-10.049	0.02000	0.00290	0.02000	-64.90	-0.8209	4235.2	195
200	259.32	12.867	0.023	-10.179	0.036	-10.179	0.02048	0.00295	0.02048	-62.51	-0.8257	4421.2	200
205	268.77	12.918	0.024	-10.309	0.037	-10.309	0.02096	0.00300	0.02096	-60.12	-0.8305	4611.2	205
210	278.32	12.969	0.024	-10.439	0.037	-10.439	0.02144	0.00305	0.02144	-57.73	-0.8353	4805.2	210
215	287.97	13.020	0.025	-10.569	0.038	-10.569	0.02192	0.00310	0.02192	-55.34	-0.8401	5003.2	215
220	297.72	13.071	0.025	-10									