

TABLE 2. THERMODYNAMIC PROPERTIES OF WATER AT SATURATION^a (Continued)

FAHR. TEMP. t (°F)	ABSOLUTE PRESSURE p × 10 ³		SPECIFIC VOLUME, CU FT PER LB			ENTHALPY, BTU PER LB			ENTROPY, BTU PER (LB) (°F)			FAHR. TEMP. t (°F)
	Lb/Sq. In.	In. Hg	Sat. Solid v _i	Evap. v _{ig} × 10 ⁻⁴	Sat. Vapor v _{ig} × 10 ⁻⁴	Sat. Solid h _i	Evap. h _{ig}	Sat. Vapor h _g	Sat. Solid s _i	Evap. s _{ig}	Sat. Vapor s _g	
-32	0.3049	0.6208	0.01738	8.355	8.355	-173.57	1220.52	1046.95	-0.3573	2.8338	2.4965	-32
-31	0.3238	0.6595	0.01738	7.883	7.883	-173.13	1220.53	1047.40	-0.3562	2.8470	2.4908	-31
-30	0.3440	0.7003	0.01738	7.441	7.441	-172.70	1220.54	1047.84	-0.3551	2.8585	2.4853	-30
-29	0.3652	0.7433	0.01738	7.025	7.025	-172.24	1220.52	1048.28	-0.3542	2.8699	2.4797	-29
-28	0.3876	0.7891	0.01738	6.634	6.634	-171.80	1220.52	1048.72	-0.3532	2.8827	2.4742	-28
-27	0.4113	0.8373	0.01738	6.267	6.267	-171.35	1220.51	1049.16	-0.3521	2.8970	2.4686	-27
-26	0.4363	0.8882	0.01738	5.921	5.921	-170.91	1220.51	1049.60	-0.3511	2.9143	2.4632	-26
-25	0.4627	0.9420	0.01739	5.596	5.596	-170.46	1220.51	1050.03	-0.3501	2.9307	2.4577	-25
-24	0.4905	0.9987	0.01739	5.290	5.290	-170.01	1220.50	1050.49	-0.3490	2.9469	2.4522	-24
-23	0.5199	1.0589	0.01739	5.003	5.003	-169.56	1220.49	1050.93	-0.3480	2.9633	2.4469	-23
-22	0.5509	1.1222	0.01739	4.732	4.732	-169.12	1220.48	1051.37	-0.3470	2.9795	2.4415	-22
-21	0.5836	1.1888	0.01739	4.477	4.477	-168.66	1220.48	1051.80	-0.3460	2.9958	2.4362	-21
-20	0.6181	1.259	0.01739	4.237	4.237	-168.21	1220.47	1052.26	-0.3449	3.0122	2.4308	-20
-19	0.6545	1.333	0.01739	4.011	4.011	-167.76	1220.46	1052.70	-0.3438	3.0285	2.4256	-19
-18	0.6928	1.410	0.01740	3.797	3.797	-167.31	1220.45	1053.14	-0.3429	3.0448	2.4203	-18
-17	0.7332	1.493	0.01740	3.596	3.596	-166.85	1220.43	1053.58	-0.3418	3.0611	2.4150	-17
-16	0.7757	1.579	0.01740	3.407	3.407	-166.40	1220.42	1054.02	-0.3408	3.0773	2.4098	-16
-15	0.8204	1.670	0.01740	3.228	3.228	-165.94	1220.40	1054.44	-0.3398	3.0935	2.4046	-15
-14	0.8678	1.766	0.01740	3.060	3.060	-165.48	1220.39	1054.87	-0.3388	3.1097	2.3995	-14
-13	0.9172	1.867	0.01740	2.901	2.901	-165.03	1220.38	1055.35	-0.3377	3.1259	2.3943	-13
-12	0.9694	1.974	0.01740	2.750	2.750	-164.57	1220.36	1055.79	-0.3367	3.1421	2.3892	-12
-11	1.024	2.086	0.01740	2.606	2.606	-164.11	1220.34	1056.23	-0.3357	3.1583	2.3841	-11
-10	1.082	2.203	0.01741	2.475	2.475	-163.65	1220.32	1056.67	-0.3347	3.1745	2.3790	-10
-9	1.143	2.327	0.01741	2.349	2.349	-163.18	1220.30	1057.12	-0.3336	3.1907	2.3740	-9
-8	1.207	2.457	0.01741	2.229	2.229	-162.72	1220.28	1057.56	-0.3326	3.2069	2.3690	-8
-7	1.274	2.594	0.01741	2.116	2.116	-162.26	1220.26	1058.00	-0.3315	3.2231	2.3640	-7
-6	1.344	2.737	0.01741	2.010	2.010	-161.79	1220.23	1058.44	-0.3305	3.2393	2.3590	-6
-5	1.419	2.888	0.01741	1.909	1.909	-161.33	1220.21	1058.88	-0.3295	3.2555	2.3541	-5
-4	1.496	3.047	0.01742	1.814	1.814	-160.86	1220.18	1059.32	-0.3285	3.2717	2.3492	-4
-3	1.578	3.213	0.01742	1.723	1.723	-160.39	1220.15	1059.76	-0.3275	3.2879	2.3443	-3
-2	1.664	3.388	0.01742	1.638	1.638	-159.92	1220.13	1060.21	-0.3264	3.3041	2.3394	-2
-1	1.754	3.572	0.01742	1.557	1.557	-159.45	1220.10	1060.65	-0.3254	3.3203	2.3346	-1

^aCompiled by John A. Goff and S. Gratch.TABLE 2. THERMODYNAMIC PROPERTIES OF WATER AT SATURATION^a (Continued)

FAHR. TEMP. (°F)	ABSOLUTE PRESSURE p_a		SPECIFIC VOLUME, CU FT PER LB			ENTHALPY, BTU PER LB			ENTROPY, BTU PER (LB) (°F)			FAHR. TEMP. (°F)
	Lb/Sq. In.	In. Hg	Sat. Solid v_i	Evap. $v_{ig} \times 10^{-3}$	Sat. Vapor $v_g \times 10^{-3}$	Sat. Solid h_i	Evap. h_{ig}	Sat. Vapor h_g	Sat. Solid s_i	Evap. s_{ig}	Sat. Vapor s_g	
0	0.01849	0.03704	0.01742	14.81	14.81	-158.98	1220.07	1061.00	-0.3244	2.6541	2.3207	0
1	0.01948	0.03960	0.01742	14.08	14.08	-158.51	1220.04	1061.53	-0.3234	2.6483	2.3249	1
2	0.02052	0.04178	0.01742	13.40	13.40	-158.04	1220.01	1061.97	-0.3224	2.6425	2.3201	2
3	0.02161	0.04400	0.01743	12.75	12.75	-157.56	1219.97	1062.41	-0.3213	2.6367	2.3154	3
4	0.02276	0.04633	0.01743	12.14	12.14	-157.09	1219.94	1062.85	-0.3203	2.6309	2.3106	4
5	0.02396	0.04878	0.01743	11.55	11.55	-156.61	1219.90	1063.29	-0.3193	2.6252	2.3059	5
6	0.02521	0.05134	0.01743	11.00	11.00	-156.14	1219.88	1063.74	-0.3182	2.6194	2.3012	6
7	0.02653	0.05402	0.01743	10.48	10.48	-155.66	1219.84	1064.18	-0.3172	2.6138	2.2966	7
8	0.02791	0.05683	0.01743	9.970	9.970	-155.18	1219.80	1064.62	-0.3162	2.6081	2.2919	8
9	0.02936	0.05977	0.01744	9.507	9.507	-154.70	1219.76	1065.06	-0.3152	2.6025	2.2873	9
10	0.03087	0.06286	0.01744	9.090	9.090	-154.22	1219.72	1065.50	-0.3142	2.5969	2.2827	10
11	0.03246	0.06608	0.01744	8.636	8.636	-153.74	1219.68	1065.94	-0.3131	2.5912	2.2781	11
12	0.03412	0.06946	0.01744	8.234	8.234	-153.26	1219.64	1066.38	-0.3121	2.5857	2.2736	12
13	0.03585	0.07300	0.01744	7.851	7.851	-152.77	1219.59	1066.82	-0.3111	2.5801	2.2690	13
14	0.03767	0.07669	0.01744	7.489	7.489	-152.29	1219.55	1067.26	-0.3101	2.5746	2.2645	14
15	0.03957	0.08056	0.01744	7.144	7.144	-151.80	1219.50	1067.70	-0.3090	2.5690	2.2600	15
16	0.04156	0.08461	0.01745	6.817	6.817	-151.32	1219.46	1068.14	-0.3080	2.5635	2.2555	16
17	0.04363	0.08884	0.01745	6.505	6.505	-150.83	1219.41	1068.58	-0.3070	2.5581	2.2511	17
18	0.04581	0.09326	0.01745	6.210	6.210	-150.34	1219.36	1069.02	-0.3060	2.5526	2.2466	18
19	0.04808	0.09789	0.01745	5.929	5.929	-149.85	1219.31	1069.46	-0.3049	2.5471	2.2422	19
20	0.05045	0.1027	0.01745	5.662	5.662	-149.36	1219.26	1069.90	-0.3039	2.5417	2.2378	20
21	0.05293	0.1078	0.01745	5.408	5.408	-148.87	1219.21	1070.34	-0.3029	2.5364	2.2335	21
22	0.05552	0.1130	0.01745	5.166	5.166	-148.38	1219.16	1070.78	-0.3019	2.5310	2.2291	22
23	0.05823	0.1186	0.01746	4.936	4.936	-147.88	1219.10	1071.22	-0.3008	2.5256	2.2248	23
24	0.06105	0.1243	0.01746	4.717	4.717	-147.39	1219.05	1071.66	-0.2998	2.5203	2.2205	24
25	0.06400	0.1303	0.01746	4.509	4.509	-146.89	1218.99	1072.10	-0.2988	2.5150	2.2162	25
26	0.06708	0.1366	0.01746	4.311	4.311	-146.40	1218.93	1072.53	-0.2978	2.5097	2.2119	26
27	0.07030	0.1431	0.01746	4.122	4.122	-145.90	1218.87	1072.97	-0.2968	2.5045	2.2077	27
28	0.07365	0.1500	0.01746	3.943	3.943	-145.40	1218.81	1073.41	-0.2957	2.4991	2.2034	28
29	0.07715	0.1571	0.01747	3.771	3.771	-144.90	1218.75	1073.85	-0.2947	2.4939	2.1992	29
30	0.08080	0.1645	0.01747	3.608	3.608	-144.40	1218.69	1074.29	-0.2937	2.4887	2.1950	30
31	0.08461	0.1723	0.01747	3.453	3.453	-143.90	1218.63	1074.73	-0.2927	2.4835	2.1908	31
32	0.08858	0.1803	0.01747	3.306	3.306	-143.40	1218.56	1075.16	-0.2916	2.4783	2.1867	32

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