

Table VI
Thermodynamic Properties of Ammonia*
Superheated Vapor

PRESSURE (SAT. TEMP.)		TEMPERATURE F																TEMPERATURE F								PRESSURE (SAT. TEMP.)			
		-40	-20	0	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400					
0	h	524.1	533.9	543.8	553.7	563.6	573.6	583.6	593.6	603.7	613.9	624.2	634.6	645.1	655.7	666.4	677.2	688.1	699.1	710.2	721.4	732.7	744.1	755.6	h	0			
5	v	52.36	54.97	57.55	60.12	62.69	65.24	67.79	70.33	72.87	75.41	77.95	80.48	83.10	85.66	88.23	90.78	93.31	95.84	98.39	100.93	103.47	106.01	108.54	v	5			
	h	522.4	532.5	542.5	552.5	562.5	572.6	582.7	592.8	602.4	612.7	623.7	634.2	644.7	655.2	665.9	676.8	687.8	698.8	710.0	721.2	732.5	743.9	755.4	h	(-83.11°)			
	s	1.3762	1.3677	1.3600	1.4113	1.4318	1.4615	1.4705	1.4899	1.5070	1.5244	1.5414	1.5591	1.5744	1.5904	1.6061	1.6218	1.6377	1.6516	1.6661	1.6803	1.6942	1.7077	1.7212	s				
10	v		27.26	28.68	29.90	31.20	32.49	33.78	35.07	36.35	37.62	38.90	40.17	41.45	42.73	44.03	45.32	46.58	47.85	49.13	50.41	51.68	52.96	54.23	v	10			
	h		530.7	541.0	551.2	561.4	571.6	581.9	592.1	602.4	612.7	623.2	633.7	644.3	654.9	665.7	676.5	687.6	698.6	709.7	720.9	732.2	743.6	755.2	h	(-41.34°)			
	s		1.2834	1.3085	1.3284	1.3492	1.3692	1.3885	1.4071	1.4252	1.4428	1.4599	1.4768	1.4929	1.5089	1.5247	1.5402	1.5554	1.5702	1.5850	1.5991	1.6129	1.6265	1.6400	s				
15	v		18.01	18.92	19.82	20.70	21.68	22.44	23.31	24.17	25.03	25.88	26.74	27.59	28.44	29.30	30.16	31.01	31.86	32.71	33.57	34.42	35.28	36.13	v	15			
	h		528.5	539.3	549.9	560.3	570.6	581.0	591.3	601.7	612.1	622.6	633.2	643.8	654.5	665.3	676.2	687.2	698.2	709.4	720.6	732.0	743.4	754.9	h	(-27.29°)			
	s		1.2323	1.2664	1.2789	1.3001	1.3204	1.3400	1.3589	1.3770	1.3947	1.4119	1.4287	1.4450	1.4610	1.4769	1.4924	1.5076	1.5225	1.5373	1.5515	1.5654	1.5790	1.5925	s				
20	v			14.09	14.78	15.45	16.12	16.78	17.43	18.08	18.73	19.37	20.02	20.66	21.30	21.94	22.59	23.23	23.86	24.51	25.15	25.79	26.44	27.07	v	20			
	h			537.6	548.5	559.1	569.6	580.1	590.6	601.0	611.5	622.1	632.7	643.3	654.1	664.9	676.8	688.6	699.9	709.9	720.4	731.7	743.2	754.7	h	(-16.84°)			
	s			1.2199	1.2430	1.2648	1.2854	1.3052	1.3242	1.3425	1.3604	1.3777	1.3945	1.4109	1.4270	1.4427	1.4583	1.4735	1.4885	1.5034	1.5177	1.5316	1.5452	1.5587	s				
30	v				9.731	10.20	10.65	11.10	11.55	11.99	12.43	12.87	13.30	13.73	14.16	14.59	15.02	15.45	15.87	16.30	16.74	17.17	17.60	18.02	v	30			
	h				545.6	558.7	567.6	576.3	589.0	599.6	610.3	620.9	631.7	642.4	653.2	664.1	675.1	686.2	697.3	708.5	719.8	731.2	742.7	754.3	h	(-0.57°)			
	s				1.1910	1.2137	1.2351	1.2553	1.2748	1.2934	1.3115	1.3290	1.3460	1.3626	1.3787	1.3945	1.4100	1.4252	1.4403	1.4554	1.4697	1.4837	1.4975	1.5110	s				
40	v					7.203	7.568	7.922	8.268	8.609	8.945	9.278	9.609	9.938	10.27	10.59	10.92	11.24	11.56	11.88	12.21	12.53	12.85	13.18	v	40			
	h					542.5	554.2	565.5	576.5	587.4	598.2	609.0	619.8	630.6	641.5	652.4	663.4	674.4	685.5	696.7	708.0	719.3	730.7	742.2	753.6	h	(11.66°)		
	s					1.1823	1.1702	1.1894	1.2192	1.2390	1.2580	1.2763	1.2940	1.3112	1.3279	1.3442	1.3601	1.3767	1.3909	1.4058	1.4212	1.4356	1.4496	1.4634	1.4770	s			
50	v						5.988	6.280	6.584	6.843	7.117	7.387	7.655	7.921	8.185	8.448	8.710	8.970	9.230	9.489	9.750	10.01	10.27	10.52	v	50			
	h						551.6	563.3	574.7	585.8	596.8	607.8	618.7	629.6	640.6	651.5	662.6	673.7	684.8	696.1	707.4	718.7	730.2	741.7	753.4	h	(21.67°)		
	s						1.1461	1.1691	1.1905	1.2109	1.2301	1.2487	1.2666	1.2840	1.3008	1.3172	1.3332	1.3489	1.3642	1.3792	1.3945	1.4091	1.4231	1.4370	1.4506	s			
75	v							4.087	4.289	4.485	4.676	4.863	5.048	5.230	5.410	5.589	5.767	5.943	6.119	6.294	6.468	6.642	6.816	6.987	v	75			
	h							557.6	569.8	581.7	593.2	604.6	616.8	627.0	638.2	649.4	660.6	671.9	683.2	694.5	705.9	717.4	728.9	740.5	h	(41.13°)			
	s							1.1131	1.1363	1.1678	1.1791	1.1974	1.2159	1.2338	1.2609	1.2676	1.2838	1.2997	1.3152	1.3303	1.3457	1.3603	1.3745	1.3884	1.4022	s			
100	v								3.149	3.304	3.454	3.600	3.743	3.883	4.021	4.158	4.294	4.428	4.562	4.695	4.827	4.958	5.089	5.219	v	100			
	h								564.7	577.3	589.4	601.3	612.9	624.4	635.8	647.2	658.6	670.0	681.5	692.9	704.5	716.0	727.7	739.5	h	(66.05°)			
	s								1.0953	1.1183	1.1396	1.1597	1.1787	1.1970	1.2146	1.2316	1.2482	1.2642	1.2799	1.2952	1.3105	1.3253	1.3398	1.3539	1.3677	s			
125	v									2.491	2.593	2.719	2.840	2.958	3.074	3.187	3.299	3.409	3.519	3.627	3.735	3.842	3.948	4.054	v	125			
	h									559.3	572.8	585.6	597.9	609.9	621.7	633.4	645.1	656.8	668.2	679.8	691.4	703.0	714.7	726.4	h	(86.31°)			
	s									1.0614	1.0860	1.1084	1.1294	1.1491	1.1679	1.1859	1.2032	1.2200	1.2363	1.2522	1.2677	1.2828	1.2979	1.3124	1.3266	1.3406	s		
150	v										2.118	2.228	2.334	2.435	2.534	2.631	2.726	2.820	2.912	3.004	3.095	3.186	3.274	3.363	v	150			
	h										568.0	581.5	594.4	606.9	619.0	631.0	642.8	654.6	666.4	678.1	689.8	701.6	713.3	725.1	h	(76.81°)			
	s										1.0581	1.0818	1.1037	1.1241	1.1434	1.1619	1.1799	1.1967	1.2132	1.2293	1.2449	1.2602	1.2751	1.2899	1.3042	1.3183	s		
200	v											1.612	1.698	1.780	1.859	1.935	2.009	2.082	2.154	2.225	2.295	2.364	2.432	2.500	v	200			
	h											573.0	587.1	600.5	613.4	626.0	638.4	650.5	662.6	674.8	686.6	698.6	710.8	722.6	h	(86.34°)			
	s											1.0389	1.0609	1.0829	1.1049	1.1227	1.1412	1.1598	1.1789	1.1923	1.2083	1.2239	1.2391	1.2539	1.2684	1.2827	s		
250	v												1.240	1.316	1.388	1.453	1.518	1.580	1.640	1.699	1.758	1.816	1.872	1.929	v	250			
	h												593.6	598.3	593.9	607.6	620.9	633.8	646.4	658.8	671.2	683.4	695.5	707.8	h	(110.60°)			
	s												0.9982	1.0248	1.0487	1.0708	1.0909	1.1102	1.1285	1.1460	1.1629	1.1793	1.1951	1.2106	1.2258	1.2403	1.2547	s	
300	v													1.058	1.123	1.183	1.239	1.294	1.346	1.397	1.447	1.496	1.544	1.592	v	300			
	h													570.8	588.8	601.6	615.6	629.0	642.1	655.0	667.8	680.2	692.6	705.0	h	(123.21°)			
	s													0.9924	1.0188	1.0421	1.0638	1.0839	1.1028	1.1209	1.1382	1.1549	1.1711	1.1868	1.2021	1.2170	1.2318	s	

*Data from Bureau of Standards Circular No. 142

Base temperature: 32 F

v—volume (cu.ft./lb.)
h—enthalpy (BTU/lb.)
s—entropy (BTU/lb. °F)