

Table 1 Experimental P - V - T values of ammonia in the neighborhood of critical point

T ($^{\circ}\text{C}$)	$1/V$ (mol/l)	P (atm)	V (cc/mol)	Z
131.05 $^{\circ}\text{C}$	9.110	108.33	109.77	0.3585
	9.396	108.55	106.43	0.3483
	9.709	108.75	103.00	0.3377
	10.042	108.89	99.58	0.3269
	10.399	109.03	96.16	0.3161
	11.784	109.14	84.86	
	13.114	109.17	76.25	
	13.114	109.17	67.71	
	14.768	109.17	60.85	
	17.420	109.31	57.41	0.1892
	17.843	109.65	56.04	0.1852
	18.297	110.32	54.65	0.1818
	18.720	111.21	53.42	0.1791
	131.54 $^{\circ}\text{C}$	9.073	109.18	110.21
9.485		109.44	105.43	0.3474
9.971		109.68	100.29	0.3312
10.286		109.81	97.22	0.3215
10.664		109.93	93.77	0.3104
11.350		110.03	88.11	
12.308		110.07	81.25	
13.444		110.09	74.38	
15.603		110.13	64.09	
16.208		110.12	61.70	
16.963		110.27	58.95	0.1957
17.685		110.80	56.55	0.1887
18.127		111.45	55.17	0.1852
18.657		112.56	53.60	0.1817
132.04 $^{\circ}\text{C}$	9.075	109.93	110.19	0.3643
	9.406	110.23	106.32	0.3525
	9.753	110.44	102.53	0.3406
	10.110	110.59	98.91	0.3290
	10.474	110.73	95.47	0.3180
	10.903	110.84	91.72	0.3508
	11.552	110.95	86.57	0.2889
	12.547	111.00	79.70	
	13.730	111.04	72.83	
	15.163	111.12	65.95	
	15.985	111.17	62.56	0.2092
	16.678	111.35	59.96	0.2008
	17.319	111.75	57.74	0.1940
	18.064	112.82	55.36	0.1878
18.648	114.10	53.63	0.1840	

132.25°C	9.190	110.44	108.81	0.3612
	9.456	110.65	105.75	0.3518
	9.770	110.86	102.35	0.3411
	10.141	111.03	98.61	0.3291
	10.528	111.17	94.98	0.3174
	10.902	111.26	91.73	0.3068
	11.324	111.35	88.31	0.2956
	11.654	111.43	85.81	0.2874
	12.519	111.48	79.88	0.2677
	13.409	111.54	74.58	
	14.228	111.55	70.28	
	14.843	111.56	67.37	
	15.392	111.64	64.97	0.2180
	16.075	111.76	62.21	0.2090
	16.578	111.89	60.32	0.2029
	17.015	112.20	58.77	0.1982
	17.534	112.69	57.03	0.1932
	17.965	113.34	55.65	0.1896
	18.654	114.86	53.61	0.1851
	132.54°C	9.073	110.60	110.22
9.517		111.02	105.08	0.3504
9.972		111.31	100.28	0.3353
10.509		111.53	95.16	0.3188
11.112		111.72	89.99	0.3020
11.785		111.83	84.85	0.2850
12.547		111.92	79.70	0.2680
13.412		112.04	74.56	0.2509
14.409		112.08	69.40	0.2336
15.198		112.12	65.80	0.2216
16.032		112.26	62.38	0.2104
17.062		112.73	58.61	0.1985
17.790		113.70	56.21	0.1920
18.420		114.96	54.29	0.1875
133.00°C	9.184	111.34	108.89	0.3638
	9.485	111.66	105.43	0.3532
	10.040	112.06	99.60	0.3349
	10.586	112.33	94.46	0.3184
	11.417	112.62	87.59	0.2960
	12.412	112.82	80.57	0.2727
	13.443	112.86	74.39	0.2519
	14.443	112.97	69.23	0.2347
	15.194	113.07	65.82	0.2233
	16.027	113.29	62.39	0.2121
	16.967	113.90	58.94	0.2014
	17.688	114.82	56.54	0.1948
	18.125	115.72	55.17	0.1916