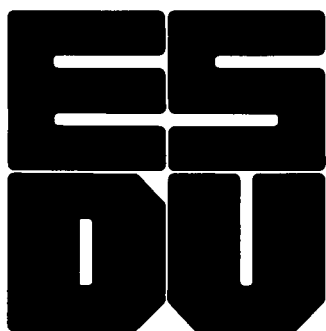




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84022

Vapour pressures and critical points of liquids

Part 1 A: C₁ to C₇ alkanes

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84022

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The work on this Item was carried out in the Internal Flow and Physical Properties Group of the Engineering Sciences Data Unit. The member of staff who undertook the initial assessment of the available information and the construction and subsequent development of the Item was

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with special help and advice from Dr D.Ambrose.

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VAPOUR PRESSURES AND CRITICAL POINTS OF LIQUIDS

1A C₁ TO C₇ ALKANES

1. INTRODUCTION

This Data Item presents saturated vapour pressures of the C₁ to C₇ alkanes listed with alternative names if any, in Table 1 (Page 2). It replaces in part Item No.72028 which dealt with C₁ to C₈ alkanes.

The values of vapour pressure given in the Tables were obtained by evaluating, for each compound, a Wagner equation of the form

$$\ln p = \ln p_c + (T_c/T) [b_1q + b_2q^{3/2} + b_3q^3 + b_4q^6] \quad (1)$$

where $q = 1 - T/T_c$ and T_c and p_c are the critical temperature and critical pressure respectively. This equation has been fitted to the experimental and calculated data that have been selected and weighted in accordance with a critical assessment of all the data.

Table 2 is an index to Tables 5 onward. Table 3 gives T_c , p_c and the coefficients b_1 , b_2 , b_3 and b_4 for each compound that, when used in Equation (1) give p in kPa for T in Kelvins. Table 4 shows for each compound, the normal boiling point in Kelvins, degrees Celsius (Centigrade) and degrees Fahrenheit, the value of dp/dT at the normal boiling point and the acentric factor.

Tables 5 to 9 present values of vapour pressure, in kPa, at 5 K intervals of temperature down to a temperature just above the freezing point or an arbitrary lower limit where the freezing point is not known.

Tables 5(C) to 9(C) present the vapour pressures, in atm and mmHg, at intervals of 5 degrees C and Table 5(F) to 9(F) give the values, in psia, at intervals of 10 degrees F. In Table 5(C) to 9(C) the units of pressure change from atm to mmHg at approximately 2 atm.

The experimental and calculated data for each compound, on which the tabulated values are based, are detailed in Appendix A. The suggested uncertainties in the tabulated values of vapour pressure that the user should allow for are discussed and tabulated in Appendix B.

A full explanation of the correlation procedure used to derive the tabulated values of vapour pressure together with notation and units, conversion factors and References is given in the Introductory Data Item, Reference 1.

2. REFERENCE

1. - Vapour pressures and critical points of liquids. Introduction to Data Items issued after September 1984. Item No.84021, Engineering Sciences Data Unit, 1984.

TABLE 1
C₁ TO C₇ ALKANES

No.	Name	Alternative Name
C ₁ to C ₃ ALKANES		
1	Methane	
2	Ethane	
3	Propane	
BUTANES		
4	Butane	n-Butane
5	2-Methylpropane	Isobutane
PENTANES		
6	Pentane	n-Pentane
7	2-Methylbutane	Isopentane
8	2,2-Dimethylpropane	Neopentane
HEXANES		
9	Hexane	n-Hexane
10	2-Methylpentane	Isohexane
11	3-Methylpentane	
12	2,2-Dimethylbutane	Neohexane
13	2,3-Dimethylbutane	Diisopropyl
HEPTANES		
14	Heptane	n-Heptane
15	2-Methylhexane	
16	3-Methylhexane	
17	3-Ethylpentane	Triethylmethane
18	2,2-Dimethylpentane	
19	2,3-Dimethylpentane	
20	2,4-Dimethylpentane	
21	3,3-Dimethylpentane	
22	2,2,3-Trimethylbutane	Triptane

TABLE 2
INDEX TO MAIN TABLES

The locations of the Tables giving vapour pressures in various units are as follows:-

		kPa v K		atm or mmHg v deg.C		psia v deg.F	
No.	Name	Table	Pages	Table	Pages	Table	Pages
C ₁ TO C ₃ ALKANES							
1	Methane	5	6, 7	5(C)	16,17	5(F)	26,17
2	Ethane	5	6, 7	5(C)	16,17	5(F)	26,17
3	Propane	5	6, 7	5(C)	16,17	5(F)	26,17
BUTANES							
4	Butane	6	8, 9	6(C)	18,19	6(F)	28,29
5	2-Methylpropane	6	8, 9	6(C)	18,19	6(F)	28,29
PENTANES							
6	Pentane	6	8, 9	6(C)	18,19	6(F)	28,29
7	2-Methylbutane	6	8, 9	6(C)	18,19	6(F)	28,29
8	2,2-Dimethylpropane	6	8, 9	6(C)	18,19	6(F)	28,29
HEXANES							
9	Hexane	7	10,11	7(C)	20,21	7(F)	30,31
10	2-Methylpentane	7	10,11	7(C)	20,21	7(F)	30,31
11	3-Methylpentane	7	10,11	7(C)	20,21	7(F)	30,31
12	2,2-Dimethylbutane	7	10,11	7(C)	20,21	7(F)	30,31
13	2,3-Dimethylbutane	7	10,11	7(C)	20,21	7(F)	30,31
HEPTANES							
14	Heptane	8	12,13	8(C)	22,23	8(F)	32,33
15	2-Methylhexane	8	12,13	8(C)	22,23	8(F)	32,33
16	3-Methylhexane	8	12,13	8(C)	22,23	8(F)	32,33
17	3-Ethylpentane	8	12,13	8(C)	22,23	8(F)	32,33
18	2,2-Dimethylpentane	9	14,15	9(C)	24,25	9(F)	34,35
19	2,3-Dimethylpentane	9	14,15	9(C)	24,25	9(F)	34,35
20	2,4-Dimethylpentane	9	14,15	9(C)	24,25	9(F)	34,35
21	3,3-Dimethylpentane	9	14,15	9(C)	24,25	9(F)	34,35
22	2,2,3-Trimethylbutane	9	14,15	9(C)	24,25	9(F)	34,35

TABLE 3
CONSTANTS in EQUATION (1)

Name	T _C K	p _C kPa	b ₁	b ₂	b ₃	b ₄
C ₁ to C ₃ ALKANES						
Methane	190.555	4595	-6.02904	1.25105	-0.91048	-1.23310
Ethane	305.33	4871.4	-6.44527	1.24905	-1.55825	-1.49074
Propane	369.85	4247.0	-6.72534	1.33785	-2.14618	-1.41623
BUTANES						
Butane	425.25	3791	-6.94647	1.33818	-2.46864	-1.51991
2-Methylpropane	407.85	3634	-6.85446	1.27051	-2.22777	-1.82835
PENTANES						
Pentane	469.8	3375	-7.25200	1.44708	-2.87333	-1.96464
2-Methylbutane	460.45	3377	-7.11219	1.38312	-2.58634	-2.08178
2,2-Dimethylpropane	433.75	3194	-6.88722	1.24241	-2.33988	-3.32247
HEXANES						
Hexane	507.9	3030	-7.41167	1.32834	-3.14532	-2.46749
2-Methylpentane	497.85	3025	-7.31634	1.33188	-2.99408	-2.24279
3-Methylpentane	504.45	3128	-7.35286	1.41990	-2.91277	-2.56610
2,2-Dimethylbutane	489.35	3100	-7.09476	1.33708	-2.69236	-1.86611
2,3-Dimethylbutane	500.25	3133	-7.19606	1.40439	-2.89277	-1.87283
HEPTANES						
Heptane	540.15	2736	-7.70799	1.44612	-3.66793	-2.54227
2-Methylhexane	530.35	2728	-7.59532	1.41280	-3.47531	-2.52855
3-Methylhexane	535.25	2810	-7.63493	1.56159	-3.56809	-2.42729
3-Ethylpentane	540.65	2889	-7.54996	1.53371	-3.58700	-2.00043
2,2-Dimethylpentane	520.55	2776	-7.45004	1.53789	-3.36234	-2.07981
2,3-Dimethylpentane	537.35	2907	-7.47058	1.47565	-3.28795	-2.19181
2,4-Dimethylpentane	519.75	2735	-7.51044	1.51789	-3.49586	-2.06906
3,3-Dimethylpentane	536.35	2936	-7.31463	1.43099	-2.98759	-2.16024
2,2,3-Trimethylbutane	531.15	2954	-7.29199	1.55933	-3.07380	-1.83906

TABLE 4

NORMAL BOILING POINTS AND ACENTRIC FACTORS

Name	Normal Boiling Point						Acentric Factor
	p=101.325 kPa		p=760 mmHg		p=14.69595 psia		
	T	dT/dp	T	dT/dp	T	dT/dp	
	K	K per kPa	deg.C	deg.C per mmHg	deg.F	deg.F per psia	
C ₁ to C ₃ ALKANES							
Methane	111.63	0.1198	-161.52	0.01598	-258.73	1.487	0.010
Ethane	184.55	0.1829	-88.60	0.02439	-127.47	2.270	0.099
Propane	231.05	0.2235	-42.10	0.02980	-43.78	2.774	0.152
BUTANES							
Butane	272.65	0.2594	-0.50	0.03458	31.11	3.219	0.199
2-Methylpropane	261.43	0.2525	-11.72	0.03366	10.90	3.133	0.184
PENTANES							
Pentane	309.22	0.2892	36.07	0.03856	96.92	3.590	0.251
2-Methylbutane	300.99	0.2859	27.84	0.03812	82.12	3.548	0.227
2,2-Dimethylpropane	282.65	0.2737	9.50	0.03649	49.10	3.397	0.196
HEXANES							
Hexane	341.88	0.3143	68.73	0.04191	155.72	3.901	0.298
2-Methylpentane	333.41	0.3105	60.26	0.04140	140.47	3.854	0.277
3-Methylpentane	336.42	0.3136	63.27	0.04182	145.89	3.892	0.274
2,2-Dimethylbutane	322.88	0.3084	49.73	0.04112	121.52	3.828	0.230
2,3-Dimethylbutane	331.13	0.3129	57.98	0.04172	136.36	3.883	0.246
HEPTANES							
Heptane	371.57	0.3362	98.42	0.04482	209.16	4.172	0.350
2-Methylhexane	363.20	0.3325	90.05	0.04433	194.09	4.126	0.329
3-Methylhexane	365.00	0.3346	91.85	0.04461	197.32	4.152	0.323
3-Ethylpentane	366.63	0.3365	93.48	0.04487	200.26	4.177	0.310
2,2-Dimethylpentane	352.34	0.3297	79.19	0.04396	174.54	4.092	0.287
2,3-Dimethylpentane	362.93	0.3362	89.78	0.04483	193.60	4.173	0.296
2,4-Dimethylpentane	353.64	0.3283	80.49	0.04377	176.89	4.074	0.303
3,3-Dimethylpentane	359.21	0.3384	86.06	0.04512	186.91	4.200	0.267
2,2,3-Trimethylbutane	354.03	0.3364	80.88	0.04486	177.58	4.176	0.251

TABLE 5

 C_1 to C_3 ALKANES (kPa v. K)

- 1 Methane
2 Ethane
3 Propane

No.	1	2	3
T_c (K)	190.555	305.33	369.85
p_c (kPa)	4595	4871.4	4247.0
T K		p kPa	
365			3891.8
360			3554.2
355			3241.2
350			2950.6
345			2680.7
340			2430.0
335			2197.5
330			1982.0
325			1782.6
320			1598.3
315			1428.5
310			1272.3
305		4837.8	1128.9
300		4357.0	997.80
295		3918.3	878.17
290		3515.8	769.40
285		3146.0	670.88
280		2806.4	581.97
275		2494.9	502.09
270		2209.7	430.66
265		1949.2	367.08
260		1711.8	310.81
255		1496.2	261.30
250		1301.1	218.00
245		1125.1	180.39
240		967.15	147.96
235		826.00	120.23
230		700.54	96.703
225		589.68	76.939
220		492.34	60.499
215		407.46	46.972
210		334.00	35.973
205		270.97	27.144
200		217.37	20.155
195		172.25	14.707
190	4515.7	134.68	10.529
185	3858.7	103.78	7.3840
180	3282.3	78.707	5.0626
175	2774.0	58.653	3.3863
170	2326.5	42.876	2.2045
165	1934.0	30.685	1.3930
160	1591.7	21.452	8.518E-1
155	1295.1	14.613	5.023E-1
150	1040.5	9.6714	2.845E-1

TABLE 5 continued

C_1 to C_3 ALKANES (kPa v. K) continued

No.	1	2	3
continued			
T K	p kPa		
145	823.94	6.1988	1.542E-1
140	641.98	3.8330	7.946E-2
135	491.14	2.2767	3.874E-2
130	368.03	1.2924	1.775E-2
125	269.36	6.970E-1	7.577E-3
120	191.91	3.547E-1	2.987E-3
115	132.59	1.689E-1	1.076E-3
110	88.401	7.457E-2	3.494E-4
105	56.563	3.016E-2	1.007E-4
100	34.496	1.102E-2	2.532E-5
95	19.884	3.579E-3	5.425E-6
90		1.011E-3	9.637E-7
T_f	90.67	89.89	85.47

TABLE 6

BUTANES and PENTANES (kPa v. K)

4	Butane			n-Butane	
5	2-Methylpropane			Isobutane	
6	Pentane			n-Pentane	
7	2-Methylbutane			Isopentane	
8	2,2-Dimethylpropane			Neopentane	
No.	4	5	6	7	8
T _C (K)	425.25	407.85	469.80	460.45	433.75
p _C (kPa)	3791	3634	3375	3377	3194
T			P		
K			kPa		
465			3136.3		
460			2904.7	3353.7	
455			2687.9	3106.8	
450			2484.7	2876.7	
445			2294.1	2661.1	
440			2115.2	2459.0	
435			1947.4	2269.2	
430			1790.0	2091.2	3010.8
425	3775.6		1642.6	1924.1	2781.8
420	3482.2		1504.6	1767.5	2567.6
415	3209.6		1375.6	1620.8	2366.9
410	2955.2		1255.0	1483.4	2178.8
405	2717.3	3465.5	1142.6	1355.0	2002.4
400	2494.7	3187.6	1037.9	1235.1	1837.1
395	2286.5	2928.9	940.46	1123.3	1682.4
390	2091.9	2687.4	850.05	1019.2	1537.7
385	1910.1	2461.9	766.27	922.42	1402.4
380	1740.4	2251.4	688.81	832.66	1276.2
375	1582.2	2054.9	617.35	749.56	1158.5
370	1435.0	1871.6	551.57	672.78	1049.1
365	1298.1	1700.8	491.18	602.00	947.48
360	1171.2	1541.9	435.88	536.93	853.29
355	1053.7	1394.3	385.40	477.26	766.17
350	945.06	1257.4	339.45	422.68	685.78
345	844.94	1130.7	297.77	372.93	611.78
340	752.87	1013.6	260.09	327.72	543.85
335	668.43	905.73	226.15	286.77	481.66
330	591.22	806.54	195.71	249.82	424.90
325	520.83	715.59	168.51	216.60	373.27
320	456.88	632.45	144.32	186.87	326.47
315	398.98	556.67	122.91	160.37	284.20
310	346.76	487.85	104.06	136.86	246.18
305	299.86	425.57	87.541	116.11	212.13
300	257.91	369.42	73.158	97.895	181.77
295	220.58	319.02	60.707	81.991	154.83
290	187.52	273.97	50.000	68.189	131.06
285	158.40	233.91	40.854	56.290	110.20
280	132.89	198.47	33.101	46.100	91.995
275	110.69	167.27	26.580	37.438	76.217

TABLE 6 continued

BUTANES and PENTANES (kPa v. K) continued

No.	4	5	6	7	8
continued					
T K	p kPa				
270	91.489	139.99	21.141	30.132	62.635
265	75.002	116.27	16.645	24.021	51.029
260	60.951	95.802	12.963	18.956	41.190
255	49.072	78.257	9.9802	14.797	
250	39.116	63.340	7.5893	11.417	
245	30.850	50.764	5.6955	8.7002	
240	24.054	40.258	4.2143	6.5425	
235	18.527	31.566	3.0715	4.8502	
230	14.084	24.452	2.2025	3.5411	
225	10.557	18.694	1.5520	2.5431	
220	7.7937	14.093	1.0733	1.7943	
215	5.6604	10.464	7.274E-1	1.2421	
210	4.0392	7.6424	4.824E-1	8.423E-1	
205	2.8279	5.4836	3.124E-1	5.586E-1	
200	1.9394	3.8596	1.972E-1	3.617E-1	
195	1.3006	2.6604	1.211E-1	2.281E-1	
190	8.513E-1	1.7926	7.219E-2	1.398E-1	
185	5.426E-1	1.1783	4.164E-2	8.312E-2	
180	3.361E-1	7.539E-1	2.318E-2	4.777E-2	
175	2.017E-1	4.683E-1	1.241E-2	2.646E-2	
170	1.169E-1	2.816E-1	6.368E-3	1.408E-2	
165	6.528E-2	1.634E-1	3.118E-3	7.164E-3	
160	3.496E-2	9.119E-2	1.451E-3	3.473E-3	
155	1.788E-2	4.873E-2	6.376E-4	1.595E-3	
150	8.691E-3	2.482E-2	2.632E-4	6.904E-4	
145	3.993E-3	1.198E-2	1.014E-4	2.797E-4	
140	1.723E-3	5.452E-3		1.053E-4	
135	6.932E-4	2.321E-3		3.651E-5	
130		9.174E-4		1.155E-5	
125		3.334E-4		3.293E-6	
120		1.102E-4		8.352E-7	
115		3.267E-5		1.855E-7	
T _f	134.86	113	143.47	113	256.77

TABLE 7

HEXANES (kPa v. K)

9	Hexane			n-Hexane	
10	2-Methylpentane			Isohexane	
11	3-Methylpentane				
12	2,2-Dimethylbutane			Neohexane	
13	2,3-Dimethylbutane			Diisopropyl	
No.	9	10	11	12	13
T _C (K)	507.90	497.85	504.45	489.35	500.25
p _C (kPa)	3030	3025	3128	3100	3133
T			p		
K			kPa		
505	2905.4				
500	2702.2		2933.3		3121.8
495	2511.5	2901.9	2728.4		2907.2
490	2332.1	2697.6	2536.0		2706.5
485	2163.3	2506.0	2355.0	2912.2	2517.7
480	2004.3	2325.8	2184.6	2709.6	2339.9
475	1854.7	2156.3	2024.2	2519.1	2172.4
470	1713.9	1996.7	1873.2	2339.8	2014.5
465	1581.4	1846.5	1731.1	2170.9	1865.7
460	1457.0	1705.2	1597.5	2011.7	1725.6
455	1340.1	1572.4	1471.9	1861.8	1593.6
450	1230.4	1447.6	1354.0	1720.5	1469.4
445	1127.7	1330.5	1243.3	1587.6	1352.7
440	1031.6	1220.6	1139.7	1462.6	1243.1
435	941.69	1117.7	1042.6	1345.1	1140.3
430	857.83	1021.5	951.94	1234.9	1043.9
425	779.68	931.57	867.30	1131.5	953.79
420	706.99	847.72	788.42	1034.7	869.57
415	639.50	769.62	715.04	944.16	791.00
410	576.95	697.03	646.89	859.65	717.83
405	519.10	629.67	583.73	780.88	649.82
400	465.72	567.30	525.31	707.58	586.71
395	416.59	509.67	471.39	639.51	528.28
390	371.46	456.55	421.74	576.43	474.31
385	330.14	407.69	376.14	518.09	424.56
380	292.39	362.87	334.36	464.26	378.83
375	258.02	321.88	296.20	414.72	336.90
370	226.82	284.49	261.44	369.24	298.56
365	198.59	250.49	229.88	327.60	263.62
360	173.15	219.68	201.32	289.60	231.86
355	150.29	191.86	175.56	255.03	203.10
350	129.85	166.82	152.41	223.67	177.15
345	111.63	144.38	131.70	195.34	153.82
340	95.475	124.34	113.25	169.83	132.93
335	81.213	106.54	96.871	146.96	114.30
330	68.684	90.793	82.410	126.54	97.773
325	57.737	76.931	69.703	108.38	83.168
320	48.225	64.793	58.597	92.314	70.332
315	40.008	54.223	48.943	78.172	59.111
310	32.955	45.072	40.601	65.788	49.356
305	26.940	37.199	33.439	55.005	40.927
300	21.848	30.470	27.331	45.672	33.691

TABLE 7 continued

HEXANES (kPa v. K) continued

No.	9	10	11	12	13
continued					
T K	p kPa				
295	17.569	24.760	22.158	37.646	27.520
290	14.001	19.950	17.811	30.791	22.296
285	11.052	15.931	14.187	24.978	17.908
280	8.6366	12.600	11.191	20.086	14.251
275	6.6766	9.8657	8.7382	16.003	11.230
270	5.1028	7.6417	6.7484	12.625	8.7585
265	3.8527	5.8515	5.1514	9.8559	6.7554
260	2.8714	4.4262	3.8838	7.6088	5.1494
255	2.1106	3.3047	2.8895	5.8044	3.8762
250	1.5286	2.4332	2.1196	4.3720	2.8789
245	1.0898	1.7651	1.5315	3.2487	2.1078
240	7.639E-1	1.2602	1.0887	2.3791	1.5198
235	5.258E-1	8.845E-1	7.607E-1	1.7154	1.0780
230	3.550E-1	6.096E-1	5.216E-1	1.2164	7.513E-1
225	2.347E-1	4.119E-1	3.506E-1	8.473E-1	5.138E-1
220	1.517E-1	2.725E-1	2.307E-1	5.789E-1	3.443E-1
215	9.575E-2	1.762E-1	1.483E-1	3.874E-1	2.258E-1
210	5.887E-2	1.112E-1	9.293E-2	2.535E-1	1.446E-1
205	3.518E-2	6.833E-2	5.670E-2	1.619E-1	9.027E-2
200	2.040E-2	4.080E-2	3.359E-2	1.008E-1	5.484E-2
195	1.144E-2	2.362E-2	1.928E-2	6.098E-2	3.233E-2
190	6.192E-3	1.322E-2	1.069E-2	3.578E-2	1.846E-2
185	3.222E-3	7.130E-3	5.710E-3	2.030E-2	1.018E-2
180	1.607E-3	3.695E-3	2.927E-3	1.111E-2	5.399E-3
175		1.833E-3	1.435E-3	5.843E-3	2.747E-3
170		8.670E-4	6.697E-4		1.336E-3
165		3.891E-4	2.963E-4		6.177E-4
160		1.648E-4	1.235E-4		2.704E-4
155		6.553E-5	4.826E-5		1.114E-4
150		2.428E-5	1.754E-5		4.292E-5
145		8.322E-6	5.886E-6		1.536E-5
140		2.615E-6	1.807E-6		
135		7.461E-7	5.023E-7		
130		1.910E-7	1.249E-7		
125		4.327E-8	2.740E-8		
120		8.544E-9	5.218E-9		
T _f	177.83	119	—	173	144

TABLE 8

HEPTANES-I (kPa v. K)

14 Heptane		n-Heptane		
15 2-Methylhexane				
16 3-Methylhexane				
17 3-Ethylpentane		Triethylmethane		
No.	14	15	16	17
T _C (K)	540.15	530.35	535.25	540.65
p _C (kPa)	2736	2728	2810	2889
T K	p kPa			
540	2730.2			2863.0
535	2543.8		2800.0	2672.0
530	2369.4	2714.4	2609.3	2493.0
525	2205.5	2528.5	2431.0	2324.6
520	2051.2	2354.4	2263.5	2165.8
515	1905.8	2190.8	2105.8	2016.0
510	1768.9	2036.7	1957.3	1874.7
505	1639.8	1891.6	1817.4	1741.3
500	1518.3	1754.8	1685.5	1615.5
495	1403.9	1626.0	1561.3	1496.9
490	1296.2	1504.6	1444.4	1385.1
485	1195.1	1390.4	1334.4	1279.8
480	1100.1	1283.0	1230.9	1180.7
475	1010.9	1182.1	1133.7	1087.6
470	927.35	1087.3	1042.4	1000.1
465	849.14	998.41	956.86	918.07
460	776.02	915.13	876.72	841.17
455	707.76	837.19	801.76	769.22
450	644.13	764.37	731.73	701.98
445	584.92	696.42	666.42	639.25
440	529.91	633.11	605.59	580.82
435	478.91	574.24	549.04	526.49
430	431.70	519.58	496.56	476.07
425	388.11	468.94	447.96	429.36
420	347.93	422.11	403.03	386.20
415	311.00	378.91	361.60	346.38
410	277.14	339.13	323.47	309.76
405	246.16	302.61	288.48	276.14
400	217.91	269.16	256.45	245.37
395	192.22	238.60	227.20	217.29
390	168.93	210.77	200.58	191.73
385	147.88	185.50	176.42	168.55
380	128.93	162.63	154.56	147.59
375	111.92	142.00	134.86	128.70
370	96.724	123.46	117.17	111.74
365	83.195	106.86	101.34	96.581
360	71.204	92.056	87.230	83.079
355	60.624	78.912	74.713	71.106
350	51.333	67.295	63.658	60.539
345	43.216	57.074	53.941	51.258
340	36.162	48.127	45.442	43.146
335	30.067	40.338	38.048	36.096
330	24.831	33.593	31.653	30.004
325	20.361	27.788	26.155	24.770

TABLE 8 continued

HEPTANES-I (kPa v. K) continued

No.	14	15	16	17
continued				
T K	p kPa			
320	16.572	22.823	21.457	20.303
315	13.381	18.605	17.470	16.515
310	10.715	15.046	14.111	13.327
305	8.5042	12.067	11.302	10.664
300	6.6869	9.5917	8.9710	8.4573
295	5.2061	7.5529	7.0539	6.6439
290	4.0110	5.8885	5.4911	5.1674
285	3.0561	4.5426	4.2293	3.9765
280	2.3012	3.4653	3.2209	3.0258
275	1.7112	2.6121	2.4237	2.2751
270	1.2556	1.9443	1.8007	1.6891
265	9.084E-1	1.4278	1.3198	1.2372
260	6.473E-1	1.0335	9.535E-1	8.933E-1
255	4.539E-1	7.368E-1	6.783E-1	6.352E-1
250	3.129E-1	5.167E-1	4.747E-1	4.443E-1
245	2.118E-1	3.561E-1	3.264E-1	3.055E-1
240	1.405E-1	2.409E-1	2.203E-1	2.061E-1
235	9.133E-2	1.597E-1	1.457E-1	1.363E-1
230	5.803E-2	1.037E-1	9.430E-2	8.828E-2
225	3.599E-2	6.574E-2	5.964E-2	5.587E-2
220	2.175E-2	4.067E-2	3.679E-2	3.450E-2
215	1.278E-2	2.450E-2	2.210E-2	2.075E-2
210	7.287E-3	1.434E-2	1.290E-2	1.213E-2
205	4.022E-3	8.138E-3	7.295E-3	6.873E-3
200	2.143E-3	4.466E-3	3.990E-3	3.769E-3
195	1.099E-3	2.363E-3	2.104E-3	1.993E-3
190	5.411E-4	1.202E-3	1.066E-3	1.014E-3
185	2.546E-4	5.858E-4	5.177E-4	4.945E-4
180		2.724E-4	2.398E-4	2.303E-4
175		1.204E-4	1.056E-4	1.020E-4
170		5.032E-5	4.393E-5	4.276E-5
165		1.979E-5	1.720E-5	1.688E-5
160		7.273E-6	6.293E-6	6.237E-6
155			2.138E-6	2.143E-6
150			6.692E-7	
145			1.913E-7	
140			4.940E-8	
T _f	182.55	155	—	154