TABLE 2-8 Vapor Pressure of Inorganic and Organic Liquids, $\ln P = C_1 + C_2/T + C_3 \ln T + C_4 T^{C5}$, P in Pa, T in K

Cmpd. no.*	Name	Formula	CAS	C_1	C_2	C_3	C_4	C_5	T_{min}, K	P at T_{min}	T_{max}, K	P at T_{max}
1	Acetaldehyde	C_2H_4O	75-07-0	52.9107	–4643.14	–4.50683	2.70E-17	6	149.78	5.15E-01	466	5.570E+06
2	Acetamide	C_2H_5NO	60-35-5	125.8 1	–12,376	–14.589	5.0824E-06	2	353.33	3.36E+02	761	6.569E+06
3	Acetic acid	$C_2H_4O_2$	64-19-7	53.27	–6304.5	–4.2985	8.89E-18	6	289.81	1.28E+03	591.95	5.739E+06
4	Acetic anhydride	$C_4H_6O_3$	108-24-7	67.1818	–7463.47	–6.24388	6.86E-18	6	200.15	4.10E-02	606	4.000E+06
5	Acetone	C_3H_6O	67-64-1	69.006	–5599.6	–7.0985	6.2237E-06	2	178.45	2.79E+00	508.2	4.709E+06
6	Acetonitrile	C_2H_3N	75-05-8	46.735	–5126.18	–3.54064	1.40E-17	6	229.32	1.71E+02	545.5	4.850E+06
7	Acetylene	C_2H_2	74-86-2	39.63	–2552.2	–2.78	2.39E-16	6	192.4	1.27E+05	308.3	6.106E+06
8	Acrolein	C_3H_4O	107-02-8	138.4	–7122.7	–19.638	0.026447	1	185.45	1.03E+01	506	5.020E+06
9	Acrylic acid	$C_3H_4O_2$	79-10-7	46.745	–6587.1	–3.2208	5.2253E-07	2	286.15	2.57E+02	615	5.661E+06
10	Acrylonitrile	C_3H_3N	107-13-1	57.3157	–5662.2	–5.06221	1.51E-17	6	189.63	2.47E+00	540	4.660E+06
11	Air	Mixture	132259-10-0	21.662	–692.39	–0.39208	0.0047574	1	59.15	5.64E+03	132.45	3.793E+06
12	Ammonia	H_3N	7664-41-7	90.483	–4669.7	–11.607	0.017194	1	195.41	6.11E+03	405.65	1.130E+07
13	Anisole	C_7H_8O	100-66-3	128.06	–9307.7	–16.693	0.014919	1	235.65	2.45E+00	645.6	4.273E+06
14	Argon	Ar	7440-37-1	42.127	–1093.1	–4.1425	0.000057254	2	83.78	6.87E+04	150.86	4.896E+06
15	Benzamide	C_7H_7NO	55-21-0	85.474	–11,932	–8.3348	1.29E-18	6	403	3.55E+02	824	5.047E+06
16	Benzene	C_6H_6	71-43-2	83.107	–6486.2	–9.2194	6.9844E-06	2	278.68	4.76E+03	562.05	4.875E+06
17	Benzenethiol	C_6H_6S	108-98-5	77.765	–8455.1	–7.7404	4.31E-18	6	258.27	7.68E+00	689	4.728E+06
18	Benzoic acid	$C_7H_6O_2$	65-85-0	88.513	–11,829	–8.6826	2.32E-19	6	395.45	7.96E+02	751	4.469E+06
19	Benzonitrile	C_7H_5N	100-47-0	55.0403	–7363.83	–4.50612	1.95E-18	6	260.28	5.40E+00	702.3	4.215E+06
20	Benzophenone	$C_{13}H_{10}O$	119-61-9	88.404	–11,769	–8.9014	1.93E-18	6	321.35	1.49E+00	830	3.357E+06
21	Benzyl alcohol	C_7H_8O	100-51-6	100.68	–11,059	–10.709	3.06E-18	6	257.85	1.88E-01	720.15	4.372E+06
22	Benzyl ethyl ether	$C_9H_{12}O$	539-30-0	68.541	–7886.2	–6.5804	2.4285E-06	2	275.65	2.31E+01	662	3.113E+06
23	Benzyl mercaptan	C_7H_8S	100-53-8	118.02	–10,527	–13.91	6.4794E-06	2	243.95	2.98E-01	718	4.074E+06
24	Biphenyl	$C_{12}H_{10}$	92-52-4	77.314	–9910.4	–7.5079	2.24E-18	6	342.2	9.42E+01	773	3.407E+06
25	Bromine	Br_2	7726-95-6	108.26	–6592	–14.16	0.016043	1	265.85	5.85E+03	584.15	1.028E+07
26	Bromobenzene	C_6H_5Br	108-86-1	63.749	–7130.2	–5.879	5.21E-18	6	242.43	7.84E+00	670.15	4.520E+06
27	Bromoethane	C_2H_5Br	74-96-4	57.3242	–4931.2	–5.2244	3.08E-17	6	154.25	3.80E-01	503.8	5.565E+06
28	Bromomethane	CH_3Br	74-83-9	44.7643	–3907.8	–3.4016	2.95E-17	6	179.44	2.07E+02	464	6.929E+06
29	1,2-Butadiene	C_4H_6	590-19-2	39.714	–3769.9	–2.6407	6.94E-18	6	136.95	4.47E-01	452	4.361E+06
30	1,3-Butadiene	C_4H_6	106-99-0	75.572	–4621.9	–8.5323	0.000012269	2	164.25	6.92E+01	425	4.303E+06
31	Butane	C_4H_{10}	106-97-8	66.343	–4363.2	–7.046	9.4509E-06	2	134.86	6.74E-01	425.12	3.770E+06
32	1,2-Butanediol	$C_4H_{10}O_2$	584-03-2	103.28	–11,548	–10.925	4.26E-18	6	220	2.93E-04	680	5.202E+06
33	1,3-Butanediol	$C_4H_{10}O_2$	107-88-0	123.22	–12,620	–13.986	0.000003926	2	196.15	3.74E-07	676	4.033E+06
34	1-Butanol	$C_4H_{10}O$	71-36-3	106.29483	–9866.35511	–11.6553	1.08E-17	6	183.85	2.91E-04	563.1	4.414E+06
35	2-Butanol	$C_4H_{10}O$	78-92-2	122.552	–10,236.2	–14.125	2.36E-17	6	158.45	1.24E-06	535.9	4.190E+06
36	1-Butene	C_4H_8	106-98-9	51.836	–4019.2	–4.5229	4.88E-17	6	87.8	6.94E-07	419.5	4.021E+06
37	*cis*-2-Butene	C_4H_8	590-18-1	72.541	–4691.2	–7.9776	0.000010368	2	134.26	2.72E-01	435.5	4.238E+06
38	*trans*-2-Butene	C_4H_8	624-64-6	71.704	–4563.1	–7.9053	0.000011319	2	167.62	7.45E+01	428.6	4.100E+06
39	Butyl acetate	$C_6H_{12}O_2$	123-86-4	122.82	–9253.2	–14.99	0.00001047	2	199.65	8.17E-02	575.4	3.087E+06
40	Butylbenzene	$C_{10}H_{14}$	104-51-8	101.22	–9255.4	–11.538	5.9208E-06	2	185.3	1.54E-04	660.5	2.882E+06
41	Butyl mercaptan	$C_4H_{10}S$	109-79-5	65.382	–6262.4	–6.2585	1.49E-17	6	157.46	2.35E-03	570.1	3.973E+06
42	*sec*-Butyl mercaptan	$C_4H_{10}S$	513-53-1	60.649	–5785.9	–5.6113	1.59E-17	6	133.02	3.40E-05	554	4.060E+06
43	1-Butyne	C_4H_6	107-00-6	77.004	–5054.5	–8.5665	0.000010161	2	147.43	1.18E+00	440	4.599E+06
44	Butyraldehyde	C_4H_8O	123-72-8	51.648	–5301.36	–4.2559	1.14E-17	6	176.8	6.97E-01	537.2	4.410E+06
45	Butyric acid	$C_4H_8O_2$	107-92-6	78.1171	–8924.37	–7.59929	7.39E-18	6	267.95	1.03E+01	615.7	4.060E+06
46	Butyronitrile	C_4H_7N	109-74-0	60.6576	–6404.32	–5.49286	1.13E-17	6	161.3	9.41E-04	585.4	3.880E+06
47	Carbon dioxide	CO_2	124-38-9	47.0169	–2839	–3.86388	2.81E-16	6	216.58	5.18E+05	304.21	7.384E+06
48	Carbon disulfide	CS_2	75-15-0	67.114	–4820.4	–7.5303	0.0091695	1	161.11	1.49E+00	552	8.041E+06
49	Carbon monoxide	CO	630-08-0	45.698	–1076.6	–4.8814	0.000075673	2	68.15	1.54E+04	132.92	3.494E+06
50	Carbon tetrachloride	CCl_4	56-23-5	78.441	–6128.1	–8.5766	6.8465E-06	2	250.33	1.12E+03	556.35	4.544E+06
51	Carbon tetrafluoride	CF_4	75-73-0	61.89	–2296.3	–7.086	0.000034687	2	89.56	1.08E+02	227.51	3.742E+06
52	Chlorine	Cl_2	7782-50-5	71.334	–3855	–8.5171	0.012378	1	172.12	1.37E+03	417.15	7.793E+06
53	Chlorobenzene	C_6H_5Cl	108-90-7	54.144	–6244.4	–4.5343	4.70E-18	6	227.95	8.45E+00	632.35	4.529E+06
54	Chloroethane	C_2H_5Cl	75-00-3	44.677	–4026	–3.371	2.27E-17	6	136.75	2.61E-01	460.35	5.267E+06
55	Chloroform	$CHCl_3$	67-66-3	146.43	–7792.3	–20.614	0.024578	1	207.15	5.25E+01	536.4	5.554E+06
56	Chloromethane	CH_3Cl	74-87-3	44.555	–3521.3	–3.4258	5.63E-17	6	175.45	8.84E+02	416.25	6.759E+06
57	1-Chloropropane	C_3H_7Cl	540-54-5	58.3592	–5111.33	–5.35261	2.47E-17	6	150.35	8.47E-02	503.15	4.425E+06
58	2-Chloropropane	C_3H_7Cl	75-29-6	46.854	–4445.5	–3.6533	1.33E-17	6	155.97	9.08E-01	489	4.510E+06
59	*m*-Cresol	C_7H_8O	108-39-4	95.403	–10,581	–10.004	4.30E-18	6	285.39	5.86E+00	705.85	4.522E+06
60	*o*-Cresol	C_7H_8O	95-48-7	210.88	–13,928	–29.483	0.025182	1	304.19	6.53E+01	697.55	5.058E+06

(*Continued*)

TABLE 2-8 Vapor Pressure of Inorganic and Organic Liquids, $\ln P = C_1 + C_2/T + C_3 \ln T + C_4 T^{C5}$, P in Pa, T in K (*Continued*)

Cmpd. no.*	Name	Formula	CAS	C_1	C_2	C_3	C_4	C_5	T_{min}, K	P at T_{min}	T_{max}, K	P at T_{max}
61	*p*-Cresol	C_7H_8O	106-44-5	118.53	−11,957	−13.293	8.70E-18	6	307.93	3.45E+01	704.65	5.151E+06
62	Cumene	C_9H_{12}	98-82-8	102.81	−8674.6	−11.922	7.0048E-06	2	177.14	4.71E-04	631	3.226E+06
63	Cyanogen	C_2N_2	460-19-5	39.0596	−3473.98	−2.48683	2.86E-17	6	245.25	7.44E+04	400.15	5.924E+06
64	Cyclobutane	C_4H_8	287-23-0	85.899	−4884.4	−10.883	0.014934	1	182.48	1.80E+02	459.93	4.991E+06
65	Cyclohexane	C_6H_{12}	110-82-7	51.087	−5226.4	−4.2278	9.76E-18	6	279.69	5.36E+03	553.8	4.093E+06
66	Cyclohexanol	$C_6H_{12}O$	108-93-0	189.19	−14,337	−24.148	0.00001074	2	296.6	7.65E+01	650.1	4.265E+06
67	Cyclohexanone	$C_6H_{10}O$	108-94-1	85.424	−7944.4	−9.2862	4.9957E-06	2	242	6.80E+00	653	3.989E+06
68	Cyclohexene	C_6H_{10}	110-83-8	88.184	−6624.9	−10.059	8.2566E-06	2	169.67	1.04E-01	560.4	4.392E+06
69	Cyclopentane	C_5H_{10}	287-92-3	66.341	−5198.5	−6.8103	0.000006193	2	179.28	9.07E+00	511.7	4.513E+06
70	Cyclopentene	C_5H_8	142-29-0	67.952	−5187.5	−7.0785	6.8165E-06	2	138.13	1.28E-02	507	4.799E+06
71	Cyclopropane	C_3H_6	75-19-4	40.608	−3179.6	−2.8937	5.61E-17	6	145.59	7.80E+01	398	5.494E+06
72	Cyclohexyl mercaptan	$C_6H_{12}S$	1569-69-3	85.146	−7843.7	−9.2982	5.1788E-06	2	189.64	8.24E-03	664	3.970E+06
73	Decanal	$C_{10}H_{20}O$	112-31-2	93.5742	−10,403.8	−9.79483	4.57E-18	6	285	5.51E+00	674	2.600E+06
74	Decane	$C_{10}H_{22}$	124-18-5	112.73	−9749.6	−13.245	7.1266E-06	2	243.51	1.39E+00	617.7	2.091E+06
75	Decanoic acid	$C_{10}H_{20}O_2$	334-48-5	126.405	−14,864.6	−13.9067	2.51E-18	6	304.55	1.45E-01	722.1	2.280E+06
76	1-Decanol	$C_{10}H_{22}O$	112-30-1	156.23933	−15,212.33492	−18.42393	8.50E-18	6	280.05	1.50E-01	688	2.308E+06
77	1-Decene	$C_{10}H_{20}$	872-05-9	68.401	−7776.9	−6.4637	6.38E-18	6	206.89	2.59E-02	616.6	2.223E+06
78	Decyl mercaptan	$C_{10}H_{22}S$	143-10-2	91.91	−10,565	−9.5957	5.70E-18	6	247.56	2.59E-02	696	2.130E+06
79	1-Decyne	$C_{10}H_{18}$	764-93-2	142.94	−11,119	−17.818	0.00001102	2	229.15	1.60E-01	619.85	2.363E+06
80	Deuterium	D_2	7782-39-0	18.947	−154.47	−0.57226	0.038899	1	18.73	1.72E+04	38.35	1.663E+06
81	1,1-Dibromoethane	$C_2H_4Br_2$	557-91-5	62.711	−6503.5	−5.7669	1.0427E-06	2	210.15	2.64E+00	628	6.034E+06
82	1,2-Dibromoethane	$C_2H_4Br_2$	106-93-4	43.751	−5587.7	−3.0891	8.2664E-07	2	282.85	7.53E+02	650.15	5.375E+06
83	Dibromomethane	CH_2Br_2	74-95-3	86.295	−7010.3	−9.5972	6.7794E-06	2	220.6	2.13E+01	611	7.170E+06
84	Dibutyl ether	$C_8H_{18}O$	142-96-1	72.227	−7537.6	−7.0596	9.14E-18	6	175.3	7.14E-04	584.1	2.459E+06
85	*m*-Dichlorobenzene	$C_6H_4Cl_2$	541-73-1	53.187	−6827.5	−4.3233	2.31E-18	6	248.39	6.41E+00	683.95	4.070E+06
86	*o*-Dichlorobenzene	$C_6H_4Cl_2$	95-50-1	77.105	−8111.1	−7.8886	2.7267E-06	2	256.15	6.49E+00	705	4.074E+06
87	*p*-Dichlorobenzene	$C_6H_4Cl_2$	106-46-7	88.31	−8463.4	−9.6308	4.5833E-06	2	326.14	1.23E+03	684.75	4.070E+06
88	1,1-Dichloroethane	$C_2H_4Cl_2$	75-34-3	66.611	−5493.1	−6.7301	5.3579E-06	2	176.19	2.21E+00	523	5.106E+06
89	1,2-Dichloroethane	$C_2H_4Cl_2$	107-06-2	92.355	−6920.4	−10.651	9.1426E-06	2	237.49	2.37E+02	561.6	5.318E+06
90	Dichloromethane	CH_2Cl_2	75-09-2	101.6	−6541.6	−12.247	0.000012311	2	178.01	5.93E+00	510	6.093E+06
91	1,1-Dichloropropane	$C_3H_6Cl_2$	78-99-9	83.495	−6661.4	−9.2386	6.7652E-06	2	192.5	1.72E+00	560	4.239E+06
92	1,2-Dichloropropane	$C_3H_6Cl_2$	78-87-5	65.955	−6015.6	−6.5509	4.3172E-06	2	172.71	8.25E-02	572	4.232E+06
93	Diethanol amine	$C_4H_{11}NO_2$	111-42-2	106.38	−13,714	−11.06	3.26E-18	6	301.15	1.02E-01	736.6	4.260E+06
94	Diethyl amine	$C_4H_{11}N$	109-89-7	49.314	−4949	−3.9256	9.20E-18	6	223.35	3.74E+02	496.6	3.674E+06
95	Diethyl ether	$C_4H_{10}O$	60-29-7	136.9	−6954.3	−19.254	0.024508	1	156.85	3.95E-01	466.7	3.641E+06
96	Diethyl sulfide	$C_4H_{10}S$	352-93-2	46.705	−5177.4	−3.5985	1.7147E-06	2	169.2	9.93E-02	557.15	3.961E+06
97	1,1-Difluoroethane	$C_2H_4F_2$	75-37-6	73.491	−4385.9	−8.1851	0.000012978	2	154.56	6.45E+01	386.44	4.507E+06
98	1,2-Difluoroethane	$C_2H_4F_2$	624-72-6	84.625	−5217.4	−9.871	0.00001305	2	179.6	1.17E+02	445	4.372E+06
99	Difluoromethane	CH_2F_2	75-10-5	69.132	−3847.7	−7.5868	0.000015065	2	136.95	5.43E+01	351.26	5.761E+06
100	Di-sopropyl amine	$C_6H_{15}N$	108-18-9	462.84	−18,227	−73.734	0.092794	1	176.85	4.47E-03	523.1	3.199E+06
101	Di-sopropyl ether	$C_6H_{14}O$	108-20-3	41.631	−4668.7	−2.8551	0.00063693	1	187.65	6.86E+00	500.05	2.869E+06
102	Di-sopropyl ketone	$C_7H_{14}O$	565-80-0	50.868	−6036.5	−4.066	1.1326E-06	2	204.81	8.21E-01	576	3.017E+06
103	1,1-Dimethoxyethane	$C_4H_{10}O_2$	534-15-6	53.637	−5251.2	−4.5649	1.68E-17	6	159.95	9.45E-02	507.8	3.773E+06
104	1,2-Dimethoxypropane	$C_5H_{12}O_2$	7778-85-0	62.097	−6174.9	−5.715	1.23E-17	6	226.1	4.50E+01	543	3.447E+06
105	Dimethyl acetylene	C_4H_6	503-17-3	66.592	−4999.8	−6.8387	6.6793E-06	2	240.91	6.12E+03	473.2	4.870E+06
106	Dimethyl amine	C_2H_7N	124-40-3	71.738	−5302	−7.3324	6.42E-17	6	180.96	7.56E+01	437.2	5.258E+06
107	2,3-Dimethylbutane	C_6H_{14}	79-29-8	77.161	−5691.1	−8.501	8.0325E-06	2	145.19	1.52E-02	500	3.130E+06
108	1,1-Dimethylcyclohexane	C_8H_{16}	590-66-9	81.184	−6927	−8.8498	0.000005458	2	239.66	6.06E+01	591.15	2.939E+06
109	*cis*-1,2-Dimethylcyclohexane	C_8H_{16}	2207-01-4	78.952	−7075.4	−8.4344	4.5035E-06	2	223.16	6.41E+00	606.15	2.939E+06
110	*trans*-1,2-Dimethylcyclohexane	C_8H_{16}	6876-23-9	78.429	−6882.1	−8.4129	4.9831E-06	2	184.99	8.04E-02	596.15	2.938E+06
111	Dimethyl disulfide	$C_2H_6S_2$	624-92-0	81.045	−6941.3	−8.777	5.5501E-06	2	188.44	2.07E-01	615	5.363E+06
112	Dimethyl ether	C_2H_6O	115-10-6	44.704	−3525.6	−3.4444	5.46E-17	6	131.65	3.05E+00	400.1	5.274E+06
113	*N,N*-Dimethyl formamide	C_3H_7NO	68-12-2	82.762	−7955.5	−8.8038	4.2431E-06	2	212.72	1.95E-01	649.6	4.365E+06
114	2,3-Dimethylpentane	C_7H_{16}	565-59-3	78.335	−6348.7	−8.5105	6.4311E-06	2	160	1.26E-02	537.3	2.882E+06
115	Dimethyl phthalate	$C_{10}H_{10}O_4$	131-11-3	72.517	−10,415	−6.755	1.3269E-06	2	274.18	3.72E-02	766	2.779E+06
116	Dimethylsilane	C_2H_8Si	1111-74-6	63.08	−4062.3	−6.425	1.51E-16	6	122.93	4.15E-01	402	3.561E+06
117	Dimethyl sulfide	C_2H_6S	75-18-3	84.39	−5740.6	−9.6454	0.000010073	2	174.88	7.86E+00	503.04	5.533E+06
118	Dimethyl sulfoxide	C_2H_6OS	67-68-5	56.273	−7620.6	−4.6279	4.3819E-07	2	291.67	5.02E+01	729	5.648E+06
119	Dimethyl terephthalate	$C_{10}H_{10}O_4$	120-61-6	66.1795	−9870.41	−5.85599	1.47E-18	6	413.79	1.15E+03	777.4	2.759E+06
120	1,4-Dioxane	$C_4H_8O_2$	123-91-1	44.494	−5406.7	−3.1287	2.89E-18	6	284.95	2.53E+03	587	5.158E+06

121	Diphenyl ether	$C_{12}H_{10}O$	101-84-8	59.969	−8585.5	−5.1538	2.00E-18	6	300.03	7.09E+00	766.8	3.097E+06
122	Dipropyl amine	$C_6H_{15}N$	142-84-7	54	−6018.5	−4.4981	9.97E-18	6	210.15	3.69E+00	550	3.111E+06
123	Dodecane	$C_{12}H_{26}$	112-40-3	137.47	−11,976	−16.698	8.0906E-06	2	263.57	6.15E-01	658	1.822E+06
124	Eicosane	$C_{20}H_{42}$	112-95-8	203.66	−19,441	−25.525	8.8382E-06	2	309.58	9.26E-03	768	1.175E+06
125	Ethane	C_2H_6	74-84-0	51.857	−2598.7	−5.1283	0.000014913	2	90.35	1.13E+00	305.32	4.852E+06
126	Ethanol	C_2H_6O	64-17-5	73.304	−7122.3	−7.1424	2.8853E-06	2	159.05	4.96E-04	514	6.109E+06
127	Ethyl acetate	$C_4H_8O_2$	141-78-6	66.824	−6227.6	−6.41	1.79E-17	6	189.6	1.43E+00	523.3	3.850E+06
128	Ethyl amine	C_2H_7N	75-04-7	81.56	−5596.9	−9.0779	0.000008792	2	192.15	1.52E+02	456.15	5.594E+06
129	Ethylbenzene	C_8H_{10}	100-41-4	89.063	−7733.7	−9.917	0.000005986	2	178.2	3.91E-03	617.15	3.590E+06
130	Ethyl benzoate	$C_9H_{10}O_2$	93-89-0	52.923	−7531.7	−4.2347	1.1835E-06	2	238.45	1.69E-01	698	3.203E+06
131	2-Ethyl butanoic acid	$C_6H_{12}O_2$	88-09-5	90.464	−10,243	−9.2836	5.26E-18	6	258.15	4.63E-01	655	3.403E+06
132	Ethyl butyrate	$C_6H_{12}O_2$	105-54-4	57.661	−6346.5	−5.032	8.25E-18	6	175.15	1.04E-02	571	2.935E+06
133	Ethylcyclohexane	C_8H_{16}	1678-91-7	80.208	−7203.2	−8.6023	4.5901E-06	2	161.84	3.57E-04	609.15	3.041E+06
134	Ethylcyclopentane	C_7H_{14}	1640-89-7	88.671	−7012.7	−10.045	7.4578E-06	2	134.71	3.71E-06	569.5	3.412E+06
135	Ethylene	C_2H_4	74-85-1	53.963	−2443	−5.5643	0.000019079	2	104	1.26E+02	282.34	5.032E+06
136	Ethylenediamine	$C_2H_8N_2$	107-15-3	73.51	−7572.7	−7.1435	1.21E-17	6	284.29	6.78E+02	593	6.290E+06
137	Ethylene glycol	$C_2H_6O_2$	107-21-1	84.09	−10,411	−8.1976	1.65E-18	6	260.15	2.19E-01	720	8.257E+06
138	Ethyleneimine	C_2H_5N	151-56-4	66.51	−6019.2	−6.3332	1.04E-17	6	195.2	9.71E+00	537	6.850E+06
139	Ethylene oxide	C_2H_4O	75-21-8	91.944	−5293.4	−11.682	0.014902	1	160.65	7.79E+00	469.15	7.255E+06
140	Ethyl formate	$C_3H_6O_2$	109-94-4	73.833	−5817	−7.809	0.00000632	2	193.55	1.81E+01	508.4	4.708E+06
141	2-Ethyl hexanoic acid	$C_8H_{16}O_2$	149-57-5	122.364	−13,308.8	−13.5709	6.42E-18	6	155.15	1.44E-14	674.6	2.780E+06
142	Ethylhexyl ether	$C_8H_{18}O$	5756-43-4	77.523	−7978.8	−7.7757	1.01E-17	6	180	7.60E-04	583	2.460E+06
143	Ethylisopropyl ether	$C_5H_{12}O$	625-54-7	57.723	−5236.9	−5.2136	2.30E-17	6	140	4.31E-03	489	3.414E+06
144	Ethylisopropyl ketone	$C_6H_{12}O$	565-69-5	57.459	−6356.8	−4.9545	5.20E-18	6	204.15	9.70E-01	567	3.293E+06
145	Ethyl mercaptan	C_2H_6S	75-08-1	65.551	−5027.4	−6.6853	6.3208E-06	2	125.26	1.14E-03	499.15	5.492E+06
146	Ethyl propionate	$C_5H_{10}O_2$	105-37-3	105.64	−8007	−12.477	0.000009	2	199.25	7.80E-01	546	3.336E+06
147	Ethylpropyl ether	$C_5H_{12}O$	628-32-0	86.898	−6646.4	−9.5758	5.96E-17	6	145.65	1.61E-03	500.23	3.372E+06
148	Ethyltrichlorosilane	$C_2H_5Cl_3Si$	115-21-9	61.6271	−6095.88	−5.69714	1.06E-17	6	167.55	1.96E-02	559.95	3.321E+06
149	Fluorine	F_2	7782-41-4	42.393	−1103.3	−4.1203	0.000057815	2	53.48	2.53E+02	144.12	5.167E+06
150	Fluorobenzene	C_6H_5F	462-06-6	51.915	−5439	−4.2896	8.75E-18	6	230.94	1.51E+02	560.09	4.544E+06
151	Fluoroethane	C_2H_5F	353-36-6	38.593	−3123.34	−2.53014	5.30E-17	6	129.95	9.43E+00	375.31	4.980E+06
152	Fluoromethane	CH_3F	593-53-3	41.2744	−2676.65	−3.03914	2.45E-16	6	131.35	4.34E+02	317.42	5.875E+06
153	Formaldehyde	CH_2O	50-00-0	49.3632	−3847.87	−4.09834	4.64E-17	6	155.15	4.89E+01	420	6.590E+06
154	Formamide	CH_3NO	75-12-7	100.3	−10,763	−10.946	3.8503E-06	2	275.6	1.04E+00	771	7.751E+06
155	Formic acid	CH_2O_2	64-18-6	43.8066	−5131.03	−3.18777	2.37819E-06	2	281.45	2.41E+03	588	5.810E+06
156	Furan	C_4H_4O	110-00-9	74.738	−5417	−8.0636	0.00000747	2	187.55	5.00E+01	490.15	5.550E+06
157	Helium-4	He	7440-59-7	11.533	−8.99	0.6724	0.2743	1	1.76	1.46E+03	5.2	2.284E+05
158	Heptadecane	$C_{17}H_{36}$	629-78-7	156.95	−15,557	−18.966	6.4559E-06	2	295.13	4.65E-02	736	1.344E+06
159	Heptanal	$C_7H_{14}O$	111-71-7	55.3058	−6694.68	−4.64122	5.28E-18	6	229.8	2.56E+00	620	3.160E+06
160	Heptane	C_7H_{16}	142-82-5	87.829	−6996.4	−9.8802	7.2099E-06	2	182.57	1.83E-01	540.2	2.719E+06
161	Heptanoic acid	$C_7H_{14}O_2$	111-14-8	112.372	−12,660.1	−12.147	4.39E-18	6	265.83	4.66E-02	677.3	3.042E+06
162	1-Heptanol	$C_7H_{16}O$	111-70-6	147.41	−13,466	−17.353	1.13E-17	6	239.15	1.95E-02	632.3	3.013E+06
163	2-Heptanol	$C_7H_{16}O$	543-49-7	153.088	−12,618.7	−18.7479	7.45073E-06	2	220	6.55E-03	608.3	3.000E+06
164	3-Heptanone	$C_7H_{14}O$	106-35-4	78.463	−8077.2	−7.9062	8.05E-18	6	234.15	2.30E+00	606.6	2.919E+06
165	2-Heptanone	$C_7H_{14}O$	110-43-0	75.494	−7896.5	−7.5047	8.91E-18	6	238.15	3.54E+00	611.4	2.946E+06
166	1-Heptene	C_7H_{14}	592-76-7	65.922	−6189	−6.3629	2.01E-17	6	154.12	1.86E-03	537.4	2.921E+06
167	Heptyl mercaptan	$C_7H_{16}S$	1639-09-4	79.858	−8501.8	−8.1043	8.15E-18	6	229.92	3.05E-01	645	2.772E+06
168	1-Heptyne	C_7H_{12}	628-71-7	59.083	−6031.8	−5.3072	1.44E-17	6	192.22	8.15E-01	547	3.209E+06
169	Hexadecane	$C_{16}H_{34}$	544-76-3	156.06	−15,015	−18.941	6.8172E-06	2	291.31	9.23E-02	723	1.411E+06
170	Hexanal	$C_6H_{12}O$	66-25-1	58.7734	−6529.3	−5.17151	6.95E-18	6	214.93	1.86E+00	594	3.460E+06
171	Hexane	C_6H_{14}	110-54-3	104.65	−6995.5	−12.702	0.000012381	2	177.83	9.02E-01	507.6	3.045E+06
172	Hexanoic acid	$C_6H_{12}O_2$	142-62-1	98.3767	−11,394	−10.2239	3.29E-18	6	269.25	3.17E-01	660.2	3.309E+06
173	1-Hexanol	$C_6H_{14}O$	111-27-3	135.42149	−12,288.40621	−15.73191	1.27E-17	6	228.55	2.25E-02	611.3	3.446E+06
174	2-Hexanol	$C_6H_{14}O$	626-93-7	122.695	−10,870	−14.192	0.000003871	2	223	7.46E-02	585.3	3.323E+06
175	2-Hexanone	$C_6H_{12}O$	591-78-6	107.44	−8528.6	−12.679	8.4606E-06	2	217.35	1.45E+00	587.61	3.286E+06
176	3-Hexanone	$C_6H_{12}O$	589-38-8	73.155	−7242.9	−7.2569	1.27E-17	6	217.5	2.22E+00	582.82	3.322E+06
177	1-Hexene	C_6H_{12}	592-41-6	51.9766	−5104.66	−4.34844	1.17E-17	6	133.39	5.16E-04	504	3.210E+06
178	3-Hexyne	C_6H_{10}	928-49-4	47.091	−5104	−3.6371	0.00051621	1	170.05	2.20E-01	544	3.540E+06
179	Hexyl mercaptan	$C_6H_{14}S$	111-31-9	68.467	−7390.5	−6.5456	7.76E-18	6	192.62	1.31E-02	623	3.079E+06
180	1-Hexyne	C_6H_{10}	693-02-7	133.2	−7492.9	−18.405	0.022062	1	141.25	3.92E-04	516.2	3.635E+06
181	2-Hexyne	C_6H_{10}	764-35-2	123.71	−7639	−16.451	0.016495	1	183.65	5.40E-01	549	3.530E+06
182	Hydrazine	H_4N_2	302-01-2	76.858	−7245.2	−8.22	0.0061557	1	274.69	4.08E+02	653.15	1.473E+07
183	Hydrogen	H_2	1333-74-0	12.69	−94.896	1.1125	0.00032915	2	13.95	7.21E+03	33.19	1.315E+06

(*Continued*)

TABLE 2-8 Vapor Pressure of Inorganic and Organic Liquids, $\ln P = C_1 + C_2/T + C_3 \ln T + C_4 T^{C5}$, P in Pa, T in K (*Continued*)

Cmpd. no.*	Name	Formula	CAS	C_1	C_2	C_3	C_4	C_5	T_{min}, K	P at T_{min}	T_{max}, K	P at T_{max}
184	Hydrogen bromide	BrH	10035-10-6	29.315	–2424.5	–1.1354	2.38E-18	6	185.15	2.95E+04	363.15	8.463E+06
185	Hydrogen chloride	ClH	7647-01-0	104.27	–3731.2	–15.047	0.03134	1	158.97	1.35E+04	324.65	8.356E+06
186	Hydrogen cyanide	CHN	74-90-8	36.75	–3927.1	–2.1245	3.89E-17	6	259.83	1.87E+04	456.65	5.353E+06
187	Hydrogen fluoride	FH	7664-39-3	59.544	–4143.8	–6.1764	0.000014161	2	189.79	3.37E+02	461.15	6.487E+06
188	Hydrogen sulfide	H_2S	7783-06-4	85.584	–3839.9	–11.199	0.018848	1	187.68	2.29E+04	373.53	8.999E+06
189	Isobutyric acid	$C_4H_8O_2$	79-31-2	110.38	–10,540	–12.262	1.43E-17	6	227.15	7.82E-02	605	3.683E+06
190	Isopropyl amine	C_3H_9N	75-31-0	136.66	–7201.5	–18.934	0.022255	1	177.95	7.73E+00	471.85	4.540E+06
191	Malonic acid	$C_3H_4O_4$	141-82-2	119.172	–15,688.8	–12.6757	1.55E-18	6	409.15	9.97E+01	834	6.097E+06
192	Methacrylic acid	$C_4H_6O_2$	79-41-4	109.53	–10,410	–12.289	0.000003199	2	288.15	5.86E+01	662	4.812E+06
193	Methane	CH_4	74-82-8	39.205	–1324.4	–3.4366	0.000031019	2	90.69	1.17E+04	190.56	4.590E+06
194	Methanol	CH_4O	67-56-1	82.718	–6904.5	–8.8622	7.4664E-06	2	175.47	1.11E-01	512.5	8.145E+06
195	*N*-Methyl acetamide	C_3H_7NO	79-16-3	79.128	–9523.9	–7.7355	3.16E-18	6	301.15	2.86E+01	718	4.997E+06
196	Methyl acetate	$C_3H_6O_2$	79-20-9	61.267	–5618.6	–5.6473	2.11E-17	6	175.15	1.02E+00	506.55	4.695E+06
197	Methyl acetylene	C_3H_4	74-99-7	50.242	–3811.9	–4.2526	6.53E-17	6	170.45	4.15E+02	402.4	5.619E+06
198	Methyl acrylate	$C_4H_6O_2$	96-33-3	107.69	–7027.2	–13.916	0.015185	1	196.32	4.07E+00	536	4.277E+06
199	Methyl amine	CH_5N	74-89-5	75.206	–5082.8	–8.0919	0.000008113	2	179.69	1.77E+02	430.05	7.414E+06
200	Methyl benzoate	$C_8H_8O_2$	93-58-3	84.828	–9334.7	–8.7063	6.17E-18	6	260.75	1.81E+00	693	3.589E+06
201	3-Methyl-1,2-butadiene	C_5H_8	598-25-4	66.575	–5213.4	–6.7693	4.8106E-06	2	159.53	7.28E-01	490	3.831E+06
202	2-Methylbutane	C_5H_{12}	78-78-4	71.308	–4976	–7.7169	8.7271E-06	2	113.25	1.21E-04	460.4	3.366E+06
203	2-Methylbutanoic acid	$C_5H_{10}O_2$	116-53-0	85.383	–9575.4	–8.6164	5.61E-18	6	193	6.94E-05	643	3.886E+06
204	3-Methyl-1-butanol	$C_5H_{12}O$	123-51-3	117.074	–10,743.2	–13.1654	1.17E-17	6	155.95	1.14E-08	577.2	3.933E+06
205	2-Methyl-1-butene	C_5H_{10}	563-46-2	93.131	–5525.4	–11.852	0.014205	1	135.58	2.05E-02	465	3.465E+06
206	2-Methyl-2-butene	C_5H_{10}	513-35-9	83.927	–5640.5	–9.6453	0.000011121	2	139.39	1.94E-02	470	3.394E+06
207	2-Methyl-1-butene-3-yne	C_5H_6	78-80-8	95.453	–5448.8	–12.384	0.015643	1	160.15	2.92E+00	492	4.469E+06
208	Methylbutyl ether	$C_5H_{12}O$	628-28-4	60.164	–5621.7	–5.53	1.86E-17	6	157.48	2.99E-02	512.74	3.377E+06
209	Methylbutyl sulfide	$C_5H_{12}S$	628-29-5	96.344	–7856.3	–11.058	0.000007308	2	175.3	4.61E-03	593	3.464E+06
210	3-Methyl-1-butyne	C_5H_8	598-23-2	69.459	–5250	–7.1125	7.93E-17	6	183.45	4.36E+01	463.2	4.199E+06
211	Methyl butyrate	$C_5H_{10}O_2$	623-42-7	71.87	–6885.7	–7.0944	1.49E-17	6	187.35	1.34E-01	554.5	3.480E+06
212	Methylchlorosilane	CH_5ClSi	993-00-0	95.984	–5401.7	–11.829	0.000018092	2	139.05	4.12E-01	442	4.170E+06
213	Methylcyclohexane	C_7H_{14}	108-87-2	92.684	–7080.8	–10.695	8.1366E-06	2	146.58	1.52E-04	572.1	3.486E+06
214	1-Methylcyclohexanol	$C_7H_{14}O$	590-67-0	134.63	–10,682	–16.511	8.4427E-06	2	299.15	2.57E+02	686	3.994E+06
215	*cis*-2-Methylcyclohexanol	$C_7H_{14}O$	7443-70-1	125.1	–10,288	–15.157	0.000010918	2	280.15	4.56E+01	614	3.807E+06
216	*trans*-2-Methylcyclohexanol	$C_7H_{14}O$	7443-52-9	54.179	–7477.2	–4.22	3.52E-18	6	269.15	1.62E+01	617	3.767E+06
217	Methylcyclopentane	C_6H_{12}	96-37-7	55.368	–5149.8	–5.0136	0.000003222	2	130.73	2.25E-04	532.7	3.759E+06
218	1-Methylcyclopentene	C_6H_{10}	693-89-0	52.732	–5286.9	–4.4509	1.09E-17	6	146.62	3.98E-03	542	4.130E+06
219	3-Methylcyclopentene	C_6H_{10}	1120-62-3	52.601	–5120.3	–4.4554	1.33E-17	6	168.54	5.37E-01	526	4.129E+06
220	Methyldichlorosilane	CH_4Cl_2Si	75-54-7	79.788	–5420	–9.0702	0.000011489	2	182.55	2.58E+01	483	3.964E+06
221	Methylethyl ether	C_3H_8O	540-67-0	78.586	–5176.3	–8.7501	9.1727E-06	2	160	7.85E+00	437.8	4.433E+06
222	Methylethyl ketone	C_4H_8O	78-93-3	72.698	–6143.6	–7.5779	5.6476E-06	2	186.48	1.39E+00	535.5	4.120E+06
223	Methylethyl sulfide	C_3H_8S	624-89-5	79.07	–6114.1	–8.631	6.5333E-06	2	167.23	2.25E-01	533	4.261E+06
224	Methyl formate	$C_2H_4O_2$	107-31-3	77.184	–5606.1	–8.392	7.8468E-06	2	174.15	6.88E+00	487.2	5.983E+06
225	Methylisobutyl ether	$C_5H_{12}O$	625-44-5	57.984	–5339.6	–5.2362	2.08E-17	6	188	8.70E+00	497	3.416E+06
226	Methylisobutyl ketone	$C_6H_{12}O$	108-10-1	80.503	–7421.8	–8.379	1.81E-17	6	189.15	6.99E-02	574.6	3.272E+06
227	Methyl Isocyanate	C_2H_3NO	624-83-9	57.612	–5197.9	–5.1269	2.17E-17	6	256.15	7.28E+03	488	5.480E+06
228	Methylisopropyl ether	$C_4H_{10}O$	598-53-8	53.867	–4701	–4.7052	2.88E-17	6	127.93	3.32E-03	464.48	3.764E+06
229	Methylisopropyl ketone	$C_5H_{10}O$	563-80-4	45.242	–5324.4	–3.2551	3.04E-18	6	180.15	2.95E-01	553.4	3.792E+06
230	Methylisopropyl sulfide	$C_4H_{10}S$	1551-21-9	52.82	–5437.7	–4.442	9.51E-18	6	171.64	1.80E-01	553.1	4.022E+06
231	Methyl mercaptan	CH_4S	74-93-1	54.15	–4337.7	–4.8127	4.50E-17	6	150.18	3.15E+00	469.95	7.231E+06
232	Methyl methacrylate	$C_5H_8O_2$	80-62-6	107.36	–8085.3	–12.72	8.3307E-06	2	224.95	1.91E+01	566	3.674E+06
233	2-Methyloctanoic acid	$C_9H_{18}O_2$	3004-93-1	105.7	–12,458	–11.234	4.46E-18	6	240	4.19E-04	694	2.545E+06
234	2-Methylpentane	C_6H_{14}	107-83-5	53.579	–5041.2	–4.6404	1.94E-17	6	119.55	2.07E-05	497.7	3.044E+06
235	Methyl pentyl ether	$C_6H_{14}O$	628-80-8	61.907	–6188.9	–5.706	1.18E-17	6	176	6.33E-02	546.49	3.041E+06
236	2-Methylpropane	C_4H_{10}	75-28-5	108.43	–5039.9	–15.012	0.022725	1	113.54	1.21E-02	407.8	3.630E+06
237	2-Methyl-2-propanol	$C_4H_{10}O$	75-65-0	172.27	–11,589	–22.113	0.000013703	2	298.97	5.88E+03	506.2	3.957E+06
238	2-Methyl propene	C_4H_8	115-11-7	78.01	–4634.1	–8.9575	0.000013413	2	132.81	6.45E-01	417.9	4.004E+06
239	Methyl propionate	$C_4H_8O_2$	554-12-1	70.717	–6439.7	–6.9845	2.01E-17	6	185.65	6.34E-01	530.6	4.028E+06
240	Methylpropyl ether	$C_4H_{10}O$	557-17-5	67.942	–5419.1	–6.8067	4.78E-17	6	133.97	2.90E-03	476.25	3.802E+06
241	Methylpropyl sulfide	$C_4H_{10}S$	3877-15-4	83.711	–6786.9	–9.2526	6.6666E-06	2	160.17	4.26E-03	565	3.972E+06
242	Methylsilane	CH_6Si	992-94-9	37.205	–2590.3	–2.5993	6.0508E-06	2	116.34	1.43E+01	352.5	4.702E+06

243	alpha-Methyl styrene	C_9H_{10}	98-83-9	56.485	−6954.2	−4.7889	2.78E-18	6	249.95	9.23E+00	654	3.341E+06
244	Methyl tert-butyl ether	$C_5H_{12}O$	1634-04-4	57.1299	−5200.7	−5.13976	1.65E-17	6	164.55	4.94E-01	497.1	3.286E+06
245	Methyl vinyl ether	C_3H_6O	107-25-5	51.085	−4271	−4.307	3.05E-17	6	151.15	3.37E+00	437	4.583E+06
246	Naphthalene	$C_{10}H_8$	91-20-3	62.964	−8137.5	−5.6317	2.27E-18	6	353.43	9.91E+02	748.4	4.069E+06
247	Neon	Ne	7440-01-9	29.755	−271.06	−2.6081	0.000527	2	24.56	4.38E+04	44.4	2.665E+06
248	Nitroethane	$C_2H_5NO_2$	79-24-3	75.632	−7202.3	−7.6464	1.83E-17	6	183.63	3.18E-02	593	5.159E+06
249	Nitrogen	N_2	7727-37-9	58.282	−1084.1	−8.3144	0.044127	1	63.15	1.25E+04	126.2	3.391E+06
250	Nitrogen trifluoride	F_3N	7783-54-2	68.149	−2257.9	−8.9118	0.023233	1	66.46	1.86E-01	234	4.500E+06
251	Nitromethane	CH_3NO_2	75-52-5	57.278	−6089	−4.9821	1.22E-17	6	244.6	1.47E+02	588.15	6.309E+06
252	Nitrous oxide	N_2O	10024-97-2	96.512	−4045	−12.277	0.00002886	2	182.3	8.69E+04	309.57	7.278E+06
253	Nitric oxide	NO	10102-43-9	72.974	−2650	−8.261	9.70E-15	6	109.5	2.20E+04	180.15	6.516E+06
254	Nonadecane	$C_{19}H_{40}$	629-92-5	182.54	−17,897	−22.498	7.4008E-06	2	305.04	1.59E-02	758	1.208E+06
255	Nonanal	$C_9H_{18}O$	124-19-6	80.3832	−9096.15	−8.03581	4.71E-18	6	267.3	4.25E+00	658.5	2.680E+06
256	Nonane	C_9H_{20}	111-84-2	109.35	−9030.4	−12.882	7.8544E-06	2	219.66	4.31E-01	594.6	2.305E+06
257	Nonanoic acid	$C_9H_{18}O_2$	112-05-0	123.374	−14,215.3	−13.5607	3.17E-18	6	285.55	4.58E-02	710.7	2.513E+06
258	1-Nonanol	$C_9H_{20}O$	143-08-8	162.854	−15,204.55331	−19.42436	1.07E-17	6	268.15	8.58E-02	670.9	2.528E+06
259	2-Nonanol	$C_9H_{20}O$	628-99-9	213.069	−16,246	−27.6195	1.31827E-05	2	238.15	3.85E-03	649.5	2.540E+06
260	1-Nonene	C_9H_{18}	124-11-8	63.313	−7040.4	−5.8055	7.58E-18	6	191.91	2.04E-02	593.1	2.427E+06
261	Nonyl mercaptan	$C_9H_{20}S$	1455-21-6	106.2	−10,982	−11.696	8.90E-18	6	253.05	1.47E-01	681	2.330E+06
262	1-Nonyne	C_9H_{16}	3452-09-3	114.77	−9430.8	−13.631	8.1918E-06	2	223.15	4.50E-01	598.05	2.619E+06
263	Octadecane	$C_{18}H_{38}$	593-45-3	157.68	−16,093	−18.954	5.9272E-06	2	301.31	3.39E-02	747	1.255E+06
264	Octanal	$C_8H_{16}O$	124-13-0	74.0298	−8302.12	−7.19776	5.31E-18	6	251.65	3.49E+00	638.9	2.960E+06
265	Octane	C_8H_{18}	111-65-9	96.084	−7900.2	−11.003	7.1802E-06	2	216.38	2.11E+00	568.7	2.467E+06
266	Octanoic acid	$C_8H_{16}O_2$	124-07-2	116.477	−13,300.4	−12.6746	3.98E-18	6	289.65	2.76E-01	694.26	2.779E+06
267	1-Octanol	$C_8H_{18}O$	111-87-5	144.11083	−13,667.15667	−16.82611	9.37E-18	6	257.65	9.60E-02	652.3	2.781E+06
268	2-Octanol	$C_8H_{18}O$	123-96-6	185.828	−14,520.2	−23.6236	1.08854E-05	2	241.55	3.79E-02	629.8	2.749E+06
269	2-Octanone	$C_8H_{16}O$	111-13-7	63.775	−7711.3	−5.7359	3.09E-18	6	252.85	4.68E+00	632.7	2.647E+06
270	3-Octanone	$C_8H_{16}O$	106-68-3	72.382	−8054.8	−7.0002	5.83E-18	6	255.55	7.84E+00	627.7	2.705E+06
271	1-Octene	C_8H_{16}	111-66-0	74.936	−7155.9	−7.5843	1.71E-17	6	171.45	2.98E-03	566.9	2.663E+06
272	Octyl mercaptan	$C_8H_{18}S$	111-88-6	78.368	−8855.4	−7.8202	5.66E-18	6	223.95	3.05E-02	667.3	2.523E+06
273	1-Octyne	C_8H_{14}	629-05-0	64.612	−6802.5	−6.0261	1.10E-17	6	193.55	1.04E-01	574	2.880E+06
274	Oxalic acid	$C_2H_2O_4$	144-62-7	107.476	−12,833.4	−11.3837	1.34E-18	6	462.65	1.97E+04	828	8.203E+06
275	Oxygen	O_2	7782-44-7	51.245	−1200.2	−6.4361	0.028405	1	54.36	1.48E+02	154.58	5.021E+06
276	Ozone	O_3	10028-15-6	40.067	−2204.8	−2.9351	7.75E-16	6	80.15	7.35E-01	261	5.566E+06
277	Pentadecane	$C_{15}H_{32}$	629-62-9	135.57	−13,478	−16.022	5.6136E-06	2	283.07	1.29E-01	708	1.474E+06
278	Pentanal	$C_5H_{10}O$	110-62-3	28.3041	−4657.56	−0.732149	−8.31E-18	6	191.59	1.16E+00	566.1	3.845E+06
279	Pentane	C_5H_{12}	109-66-0	78.741	−5420.3	−8.8253	9.6171E-06	2	143.42	6.86E-02	469.7	3.364E+06
280	Pentanoic acid	$C_5H_{10}O_2$	109-52-4	93.2079	−10,470.5	−9.61345	5.62E-18	6	239.15	3.97E-02	639.16	3.630E+06
281	1-Pentanol	$C_5H_{12}O$	71-41-0	114.74801	−10,643.3	−12.85754	1.25E-17	6	195.56	5.47E-04	588.1	3.897E+06
282	2-Pentanol	$C_5H_{12}O$	6032-29-7	116.828	−10,453	−13.1768	1.07E-17	6	200	5.24E-03	561	3.699E+06
283	2-Pentanone	$C_5H_{10}O$	107-87-9	84.635	−7078.4	−9.3	6.2702E-06	2	196.29	7.52E-01	561.08	3.706E+06
284	3-Pentanone	$C_5H_{10}O$	96-22-0	44.286	−5415.1	−3.0913	1.86E-18	6	234.18	7.34E+01	560.95	3.699E+06
285	1-Pentene	C_5H_{10}	109-67-1	46.994	−4289.5	−3.7345	2.54E-17	6	108.02	3.71E-05	464.8	3.562E+06
286	2-Pentyl mercaptan	$C_5H_{12}S$	2084-19-7	58.985	−6193.1	−5.2746	7.40E-18	6	160.75	1.77E-03	584.3	3.537E+06
287	Pentyl mercaptan	$C_5H_{12}S$	110-66-7	67.309	−6880.8	−6.4449	1.01E-17	6	197.45	2.01E-01	598	3.473E+06
288	1-Pentyne	C_5H_8	627-19-0	82.805	−5683.8	−9.4301	0.000010767	2	167.45	2.40E+00	481.2	4.170E+06
289	2-Pentyne	C_5H_8	627-21-4	137.29	−7447.1	−19.01	0.021415	1	163.83	2.05E-01	519	4.020E+06
290	Phenanthrene	$C_{14}H_{10}$	85-01-8	72.958	−10,943	−6.7902	1.09E-18	6	372.38	2.93E+01	869	2.902E+06
291	Phenol	C_6H_6O	108-95-2	95.444	−10,113	−10.09	6.76E-18	6	314.06	1.88E+02	694.25	6.058E+06
292	Phenyl isocyanate	C_7H_5NO	103-71-9	86.779	−8101.8	−9.5303	6.1367E-06	2	243.15	4.33E+00	653	4.063E+06
293	Phthalic anhydride	$C_8H_4O_3$	85-44-9	126.5	−12,551	−15.002	7.7521E-06	2	404.15	7.90E+02	791	4.734E+06
294	Propadiene	C_3H_4	463-49-0	57.069	−3682.7	−5.5662	6.5133E-06	2	136.87	1.82E+01	394	5.218E+06
295	Propane	C_3H_8	74-98-6	59.078	−3492.6	−6.0669	0.000010919	2	85.47	1.68E-04	369.83	4.213E+06
296	1-Propanol	C_3H_8O	71-23-8	84.66416	−8307.24422	−8.57673	7.51E-18	6	146.95	4.27E-07	536.8	5.169E+06
297	2-Propanol	C_3H_8O	67-63-0	110.717	−9040	−12.676	0.000005538	2	185.26	1.69E-02	508.3	4.771E+06
298	Propenylcyclohexene	C_9H_{14}	13511-13-2	64.268	−7298.9	−5.9109	4.85E-18	6	199	2.48E-02	636	3.130E+06
299	Propionaldehyde	C_3H_6O	123-38-6	50.8769	−4931	−4.16673	1.67E-17	6	165	7.54E-01	503.6	5.040E+06
300	Propionic acid	$C_3H_6O_2$	79-09-4	54.552	−7149.4	−4.2769	1.18E-18	6	252.45	1.31E+01	600.81	4.608E+06
301	Propionitrile	C_3H_5N	107-12-0	59.9958	−6006.16	−5.46004	1.70E-17	6	180.37	1.89E-01	561.3	4.260E+06
302	Propyl acetate	$C_5H_{10}O_2$	109-60-4	115.16	−8433.9	−13.934	0.000010346	2	178.15	1.71E-02	549.73	3.366E+06
303	Propyl amine	C_3H_9N	107-10-8	58.398	−5312.7	−5.2876	1.9913E-06	2	188.36	1.30E+01	496.95	4.738E+06
304	Propylbenzene	C_9H_{12}	103-65-1	91.379	−8276.8	−10.176	0.000005624	2	173.55	1.81E-04	638.35	3.202E+06
305	Propylene	C_3H_6	115-07-1	43.905	−3097.8	−3.4425	1.00E-16	6	87.89	1.17E-03	364.85	4.599E+06

(*Continued*)

TABLE 2-8 Vapor Pressure of Inorganic and Organic Liquids, ln $P = C_1 + C_2/T + C_3 \ln T + C_4 T^{C5}$, P in Pa, T in K (*Continued*)

Cmpd. no.*	Name	Formula	CAS	C_1	C_2	C_3	C_4	C_5	T_{min}, K	P at T_{min}	T_{max}, K	P at T_{max}
306	Propyl formate	$C_4H_8O_2$	110-74-7	104.08	−7535.9	−12.348	0.000009602	2	180.25	2.11E-01	538	4.031E+06
307	2-Propyl mercaptan	C_3H_8S	75-33-2	60.43	−5276.9	−5.6572	2.60E-17	6	142.61	9.73E-03	517	4.752E+06
308	Propyl mercaptan	C_3H_8S	107-03-9	62.165	−5624	−5.8595	2.06E-17	6	159.95	6.51E-02	536.6	4.627E+06
309	1,2-Propylene glycol	$C_3H_8O_2$	57-55-6	212.8	−15,420	−28.109	0.000021564	2	213.15	9.29E-05	626	6.041E+06
310	Quinone	$C_6H_4O_2$	106-51-4	48.651	−7289.5	−3.4453	1.01E-18	6	388.85	1.17E+04	683	5.925E+06
311	Silicon tetrafluoride	F_4Si	7783-61-1	272.85	−9548.9	−40.089	6.37E-15	6	186.35	2.21E+05	259	3.748E+06
312	Styrene	C_8H_8	100-42-5	105.93	−8685.9	−12.42	7.5583E-06	2	242.54	1.06E+01	636	3.823E+06
313	Succinic acid	$C_4H_6O_4$	110-15-6	165.977	−19,914.4	−18.9344	1.91E-18	6	460.85	7.78E+02	838	5.001E+06
314	Sulfur dioxide	O_2S	7446-09-5	47.365	−4084.5	−3.6469	1.80E-17	6	197.67	1.67E+03	430.75	7.860E+06
315	Sulfur hexafluoride	F_6S	2551-62-4	29.16	−2383.6	−1.1342			223.15	2.30E+05	318.69	3.771E+06
316	Sulfur trioxide	O_3S	7446-11-9	180.99	−12,060	−22.839	7.24E-17	6	289.95	2.09E+04	490.85	8.192E+06
317	Terephthalic acid	$C_8H_6O_4$	100-21-0	124.004	−17,894.4	−13.156	1.18E-18	6	700.15	2.42E+05	883.6	3.487E+06
318	*o*-Terphenyl	$C_{18}H_{14}$	84-15-1	110.52	−14,045	−11.861	2.21E-18	6	329.35	4.14E-01	857	2.974E+06
319	Tetradecane	$C_{14}H_{30}$	629-59-4	140.47	−13,231	−16.859	6.5877E-06	2	279.01	2.53E-01	693	1.569E+06
320	Tetrahydrofuran	C_4H_8O	109-99-9	54.898	−5305.4	−4.7627	1.43E-17	6	164.65	1.96E-01	540.15	5.203E+06
321	1,2,3,4-Tetrahydronaphthalene	$C_{10}H_{12}$	119-64-2	137.23	−10,620	−17.908	0.014506	1	237.38	1.33E-01	720	3.624E+06
322	Tetrahydrothiophene	C_4H_8S	110-01-0	75.881	−6910.6	−7.9499	4.4315E-06	2	176.99	1.54E-02	631.95	5.117E+06
323	2,2,3,3-Tetramethylbutane	C_8H_{18}	594-82-1	57.963	−5901.5	−5.2048	9.13E-18	6	373.96	8.69E+04	568	2.871E+06
324	Thiophene	C_4H_4S	110-02-1	93.193	−7001.5	−10.738	8.2308E-06	2	234.94	1.86E+02	579.35	5.702E+06
325	Toluene	C_7H_8	108-88-3	76.945	−6729.8	−8.179	5.3017E-06	2	178.18	4.75E-02	591.75	4.080E+06
326	1,1,2-Trichloroethane	$C_2H_3Cl_3$	79-00-5	54.153	−6041.8	−4.5383	4.98E-18	6	236.5	4.47E+01	602	4.447E+06
327	Tridecane	$C_{13}H_{28}$	629-50-5	137.45	−12,549	−16.543	7.1275E-06	2	267.76	2.51E-01	675	1.679E+06
328	Triethyl amine	$C_6H_{15}N$	121-44-8	56.55	−5681.9	−4.9815	1.24E-17	6	158.45	1.06E-02	535.15	3.037E+06
329	Trimethyl amine	C_3H_9N	75-50-3	134.68	−6055.8	−19.415	0.028619	1	156.08	9.92E+00	433.25	4.102E+06
330	1,2,3-Trimethylbenzene	C_9H_{12}	526-73-8	78.341	−8019.8	−8.1458	3.8971E-06	2	247.79	3.71E+00	664.5	3.447E+06
331	1,2,4-Trimethylbenzene	C_9H_{12}	95-63-6	85.301	−8215.9	−9.2166	4.7979E-06	2	229.33	6.93E-01	649.1	3.211E+06
332	2,2,4-Trimethylpentane	C_8H_{18}	540-84-1	84.912	−6722.2	−9.5157	7.2244E-06	2	165.78	1.71E-02	543.8	2.550E+06
333	2,3,3-Trimethylpentane	C_8H_{18}	560-21-4	83.105	−6903.7	−9.1858	6.4703E-06	2	172.22	1.68E-02	573.5	2.812E+06
334	1,3,5-Trinitrobenzene	$C_6H_3N_3O_6$	99-35-4	506.33	−37,483	−69.22	0.000027381	2	398.4	8.50E+00	846	3.410E+06
335	2,4,6-Trinitrotoluene	$C_7H_5N_3O_6$	118-96-7	302	−24,324	−40.13	0.000017403	2	354	9.36E-01	828	3.019E+06
336	Undecane	$C_{11}H_{24}$	1120-21-4	131	−11,143	−15.855	8.1871E-06	2	247.57	4.08E-01	639	1.949E+06
337	1-Undecanol	$C_{11}H_{24}O$	112-42-5	182.57122	−17,112.47062	−22.1251	1.13E-17	6	288.45	1.25E-01	703.9	2.119E+06
338	Vinyl acetate	$C_4H_6O_2$	108-05-4	57.406	−5702.8	−5.0307	1.10E-17	6	180.35	7.06E-01	519.13	3.930E+06
339	Vinyl acetylene	C_4H_4	689-97-4	55.682	−4439.3	−5.0136	1.97E-17	6	173.15	6.69E+01	454	4.887E+06
340	Vinyl chloride	C_2H_3Cl	75-01-4	91.432	−5141.7	−10.981	0.000014318	2	119.36	1.92E-02	432	5.749E+06
341	Vinyl trichlorosilane	$C_2H_3Cl_3Si$	75-94-5	54.571	−5561.5	−4.712	1.07E-17	6	178.35	3.54E-01	543.15	3.058E+06
342	Water	H_2O	7732-18-5	73.649	−7258.2	−7.3037	4.1653E-06	2	273.16	6.11E+02	647.1	2.193E+07
343	*m*-Xylene	C_8H_{10}	108-38-3	85.099	−7615.9	−9.3072	5.5643E-06	2	225.3	3.18E+00	617	3.528E+06
344	*o*-Xylene	C_8H_{10}	95-47-6	90.405	−7955.2	−10.086	5.9594E-06	2	247.98	2.18E+01	630.3	3.741E+06
345	*p*-Xylene	C_8H_{10}	106-42-3	88.72	−7741.2	−9.8693	0.000006077	2	286.41	5.76E+02	616.2	3.501E+06

Vapor pressure P_s is calculated by $P_s = \exp(C_1 + C_2/T + C_3 \ln(T) + C_4 T^{C5})$ where P_s is in Pa and T is in K.

*All substances and their numbers are listed by chemical family in Table 2-6 and by formula in Table 2-7.