TABLE 2-8 Vapor Pressure of Inorganic and Organic Liquids, ln P = C1 + C2/T + C3 ln T + C4 T^{C5}, P in Pa

No.	Name	Formula	CAS no.	C1	C2	C3	C4	C5	T_{min}, K	P at T_{min}	T_{max}, K	P at T_{max}
1	Acetaldehyde	C_2H_4O	75-07-0	193.69	–8,036.7	–29.502	4.3678E-02	1	150.15	3.23E–01	466	5.565E+06
2	Acetamide	C_2H_5NO	60-35-5	125.81	–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	–6,304.5	–4.2985	8.8865E-18	6	289.81	1.28E+03	591.95	5.739E+06
4	Acetic anhydride	$C_4H_6O_3$	108-24-7	100.95	–8,873.2	–11.451	6.1316E-06	2	200.15	2.20E–02	606	3.970E+06
5	Acetone	C_3H_6O	67-64-1	69.006	–5,599.6	–7.0985	6.2237E-06	2	178.45	2.79E+00	508.2	4.709E+06
6	Acetonitrile	C_2H_3N	75-05-8	58.302	–5,385.6	–5.4954	5.3634E-06	2	229.32	1.87E+02	545.5	4.852E+06
7	Acetylene	C_2H_2	74-86-2	39.63	–2,552.2	–2.78	2.3930E-16	6	192.4	1.27E+05	308.3	6.106E+06
8	Acrolein	C_3H_4O	107-02-8	138.4	–7,122.7	–19.638	2.6447E-02	1	185.45	1.03E+01	506	5.020E+06
9	Acrylic acid	$C_3H_4O_2$	79-10-7	46.745	–6,587.1	–3.2208	5.2253E-07	2	286.15	2.57E+02	615	5.661E+06
10	Acrylonitrile	C_3H_3N	107-13-1	87.604	–6,392.7	–10.101	1.0891E-05	2	189.63	3.68E+00	535	4.480E+06
11	Air	Mixture	132259-10-0	21.662	–692.39	–0.392	4.7574E-03	1	59.15	5.64E+03	132.45	3.793E+06
12	Ammonia	H_3N	7664-41-7	90.483	–4,669.7	–11.607	1.7194E-02	1	195.41	6.11E+03	405.65	1.130E+07
13	Anisole	C_7H_8O	100-66-3	128.06	–9,307.7	–16.693	1.4919E-02	1	235.65	2.45E+00	645.6	4.273E+06
14	Argon	Ar	7440-37-1	42.127	–1,093.1	–4.1425	5.7254E-05	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	1.2850E-18	6	403	3.55E+02	824	5.047E+06
16	Benzene	C_6H_6	71-43-2	83.107	–6,486.2	–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	–8,455.1	–7.7404	4.3089E-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	2.3248E-19	6	395.45	7.96E+02	751	4.469E+06
19	Benzonitrile	C_7H_5N	100-47-0	138.5	–11,195	–17.085	9.5641E-06	2	260.4	3.08E+00	699.35	4.243E+06
20	Benzophenone	$C_{13}H_{10}O$	119-61-9	88.404	–11,769	–8.9014	1.9334E-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	3.0582E-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	–7,886.2	–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	–9,910.4	–7.5079	2.2385E-18	6	342.2	9.42E+01	773	3.407E+06
25	Bromine	Br_2	7726-95-6	108.26	–6,592	–14.16	1.6043E-02	1	265.85	5.85E+03	584.15	1.028E+07
26	Bromobenzene	C_6H_5Br	108-86-1	63.749	–7,130.2	–5.879	5.2136E-18	6	242.43	7.84E+00	670.15	4.520E+06
27	Bromoethane	C_2H_5Br	74-96-4	62.217	–5,113.3	–5.9761	4.7174E-17	6	154.55	3.72E–01	503.8	6.290E+06
28	Bromomethane	CH_3Br	74-83-9	72.586	–4,698.6	–7.9966	1.1553E-05	2	179.47	1.95E+02	467	7.997E+06
29	1,2-Butadiene	C_4H_6	590-19-2	39.714	–3,769.9	–2.6407	6.9379E-18	6	136.95	4.47E–01	452	4.361E+06
30	1,3-Butadiene	C_4H_6	106-99-0	75.572	–4,621.9	–8.5323	1.2269E-05	2	164.25	6.92E+01	425	4.303E+06
31	Butane	C_4H_{10}	106-97-8	66.343	–4,363.2	–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	4.2560E-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	3.9260E-06	2	196.15	3.74E–07	676	4.033E+06
34	1-Butanol	$C_4H_{10}O$	71-36-3	106.295	–9,866.4	–11.655	1.0832E-17	6	183.85	2.90E–04	563.1	4.401E+06
35	2-Butanol	$C_4H_{10}O$	78-92-2	114.68	–9,850.2	–12.963	1.8738E-17	6	158.45	1.95E–06	535.9	4.182E+06
36	1-Butene	C_4H_8	106-98-9	51.836	–4,019.2	–4.5229	4.8833E-17	6	87.8	6.94E–07	419.5	4.021E+06
37	*cis*-2-Butene	C_4H_8	590-18-1	72.541	–4,691.2	–7.9776	1.0368E-05	2	134.26	2.72E–01	435.5	4.238E+06
38	*trans*-2-Butene	C_4H_8	624-64-6	71.704	–4,563.1	–7.9053	1.1319E-05	2	167.62	7.45E+01	428.6	4.100E+06
39	Butyl acetate	$C_6H_{12}O_2$	123-86-4	122.82	–9,253.2	–14.99	1.0470E-05	2	199.65	8.17E–02	575.4	3.087E+06
40	Butylbenzene	$C_{10}H_{14}$	104-51-8	101.22	–9,255.4	–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	–6,262.4	–6.2585	1.4943E-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	–5,785.9	–5.6113	1.5877E-17	6	133.02	3.40E–05	554	4.060E+06
43	1-Butyne	C_4H_6	107-00-6	77.004	–5,054.5	–8.5665	1.0161E-05	2	147.43	1.18E+00	440	4.599E+06
44	Butyraldehyde	C_4H_8O	123-72-8	99.33	–7,083.6	–11.733	1.0027E-05	2	176.75	3.17E–01	537.2	4.323E+06
45	Butyric acid	$C_4H_8O_2$	107-92-6	93.815	–9,942.2	–9.8019	9.3124E-18	6	267.95	6.78E+00	615.7	4.071E+06
46	Butyronitrile	C_4H_7N	109-74-0	66.32	–6,714.9	–6.3087	1.3516E-17	6	161.25	6.18E–04	582.25	3.787E+06
47	Carbon dioxide	CO_2	124-38-9	140.54	–4,735	–21.268	4.0909E-02	1	216.58	5.19E+05	304.21	7.390E+06
48	Carbon disulfide	CS_2	75-15-0	67.114	–4,820.4	–7.5303	9.1695E-03	1	161.11	1.49E+00	552	8.041E+06
49	Carbon monoxide	CO	630-08-0	45.698	–1,076.6	–4.8814	7.5673E-05	2	68.15	1.54E+04	132.92	3.494E+06
50	Carbon tetrachloride	CCl_4	56-23-5	78.441	–6,128.1	–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	–2,296.3	–7.086	3.4687E-05	2	89.56	1.08E+02	227.51	3.742E+06
52	Chlorine	Cl_2	7782-50-5	71.334	–3,855	–8.5171	1.2378E-02	1	172.12	1.37E+03	417.15	7.793E+06
53	Chlorobenzene	C_6H_5Cl	108-90-7	54.144	–6,244.4	–4.5343	4.7030E-18	6	227.95	8.45E+00	632.35	4.529E+06
54	Chloroethane	C_2H_5Cl	75-00-3	65.988	–4,661.3	–6.8586	7.9404E-06	2	134.8	1.25E–01	460.35	5.327E+06
55	Chloroform	$CHCl_3$	67-66-3	146.43	–7,792.3	–20.614	2.4578E-02	1	207.15	5.25E+01	536.4	5.554E+06
56	Chloromethane	CH_3Cl	74-87-3	64.697	–4,048.1	–6.8066	1.0371E-05	2	175.43	8.71E+02	416.25	6.691E+06
57	1-Chloropropane	C_3H_7Cl	540-54-5	79.24	–5,718.8	–8.789	8.4486E-06	2	150.35	6.96E–02	503.15	4.581E+06
58	2-Chloropropane	C_3H_7Cl	75-29-6	46.854	–4,445.5	–3.6533	1.3260E-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	4.3032E-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	2.5182E-02	1	304.19	6.53E+01	697.55	5.058E+06

TABLE 2-8 Vapor Pressure of Inorganic and Organic Liquids, ln P = C1 + C2/T + C3 ln T + C4 T^{C5}, P in Pa (*Continued*)

No.	Name	Formula	CAS no.	C1	C2	C3	C4	C5	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	8.6988E-18	6	307.93	3.45E+01	704.65	5.151E+06
62	Cumene	C_9H_{12}	98-82-8	102.81	−8,674.6	−11.922	7.0048E-06	2	177.14	4.71E−04	631	3.226E+06
63	Cyanogen	C_2N_2	460-19-5	81.565	−4,808.9	−9.3748	1.3901E-05	2	245.25	7.39E+04	400.15	5.961E+06
64	Cyclobutane	C_4H_8	287-23-0	85.899	−4,884.4	−10.883	1.4934E-02	1	182.48	1.80E+02	459.93	4.991E+06
65	Cyclohexane	C_6H_{12}	110-82-7	51.087	−5,226.4	−4.2278	9.7554E-18	6	279.69	5.36E+03	553.8	4.094E+06
66	Cyclohexanol	$C_6H_{12}O$	108-93-0	189.19	−14,337	−24.148	1.0740E-05	2	296.6	7.65E+01	650.1	4.265E+06
67	Cyclohexanone	$C_6H_{10}O$	108-94-1	85.424	−7,944.4	−9.2862	4.9957E-06	2	242	6.80E+00	653	3.989E+06
68	Cyclohexene	C_6H_{10}	110-83-8	88.184	−6,624.9	−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	−5,198.5	−6.8103	6.1930E-06	2	179.28	9.07E+00	511.7	4.513E+06
70	Cyclopentene	C_5H_8	142-29-0	67.952	−5,187.5	−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	−3,179.6	−2.8937	5.6131E-17	6	145.59	7.80E+01	398	5.494E+06
72	Cyclohexyl mercaptan	$C_6H_{12}S$	1569-69-3	85.146	−7,843.7	−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	201.64	−15,133	−26.264	1.4625E-05	2	267.15	4.86E−01	674.2	2.599E+06
74	Decane	$C_{10}H_{22}$	124-18-5	112.73	−9,749.6	−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	123.36	−14,680	−13.474	1.9491E-18	6	304.55	1.50E−01	722.1	2.233E+06
76	1-Decanol	$C_{10}H_{22}O$	112-30-1	156.239	−15,212	−18.424	8.5006E-18	6	280.05	1.51E−01	688	2.309E+06
77	1-Decene	$C_{10}H_{20}$	872-05-9	68.401	−7,776.9	−6.4637	6.3750E-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	5.7028E-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	1.1020E-05	2	229.15	1.60E−01	619.85	2.363E+06
80	Deuterium	D_2	7782-39-0	18.947	−154.47	−0.5723	3.8899E-02	1	18.73	1.72E+04	38.35	1.663E+06
81	1,1-Dibromoethane	$C_2H_4Br_2$	557-91-5	62.711	−6,503.5	−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	−5,587.7	−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	−7,010.3	−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	−7,537.6	−7.0596	9.1442E-18	6	175.3	7.14E−04	584.1	2.459E+06
85	*m*-Dichlorobenzene	$C_6H_4Cl_2$	541-73-1	53.187	−6,827.5	−4.3233	2.3112E-18	6	248.39	6.41E+00	683.95	4.070E+06
86	*o*-Dichlorobenzene	$C_6H_4Cl_2$	95-50-1	77.105	−8,111.1	−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	−8,463.4	−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	−5,493.1	−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	−6,920.4	−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	−6,541.6	−12.247	1.2311E-05	2	178.01	5.93E+00	510	6.093E+06
91	1,1-Dichloropropane	$C_3H_6Cl_2$	78-99-9	83.495	−6,661.4	−9.2386	6.7652E-06	2	200	4.52E+00	560	4.239E+06
92	1,2-Dichloropropane	$C_3H_6Cl_2$	78-87-5	65.955	−6,015.6	−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	3.2645E-18	6	301.15	1.02E−01	736.6	4.260E+06
94	Diethyl amine	$C_4H_{11}N$	109-89-7	49.314	−4,949	−3.9256	9.1978E-18	6	223.35	3.74E+02	496.6	3.674E+06
95	Diethyl ether	$C_4H_{10}O$	60-29-7	136.9	−6,954.3	−19.254	2.4508E-02	1	156.85	3.95E−01	466.7	3.641E+06
96	Diethyl sulfide	$C_4H_{10}S$	352-93-2	46.705	−5,177.4	−3.5985	1.7147E-06	2	169.20	9.93E−02	557.15	3.961E+06
97	1,1-Difluoroethane	$C_2H_4F_2$	75-37-6	73.491	−4,385.9	−8.1851	1.2978E-05	2	154.56	6.45E+01	386.44	4.507E+06
98	1,2-Difluoroethane	$C_2H_4F_2$	624-72-6	84.625	−5,217.4	−9.871	1.3050E-05	2	215	2.83E+03	445	4.372E+06
99	Difluoromethane	CH_2F_2	75-10-5	69.132	−3,847.7	−7.5868	1.5065E-05	2	136.95	5.43E+01	351.255	5.760E+06
100	Di-isopropyl amine	$C_6H_{15}N$	108-18-9	462.84	−18,227	−73.734	9.2794E-02	1	176.85	4.47E−03	523.1	3.199E+06
101	Di-isopropyl ether	$C_6H_{14}O$	108-20-3	41.631	−4,668.7	−2.8551	6.3693E-04	1	187.65	6.86E+00	500.05	2.869E+06
102	Di-isopropyl ketone	$C_7H_{14}O$	565-80-0	50.868	−6,036.5	−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	−5,251.2	−4.5649	1.6754E-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	−6,174.9	−5.715	1.2323E-17	6	226.1	4.50E+01	543	3.447E+06
105	Dimethyl acetylene	C_4H_6	503-17-3	66.592	−4,999.8	−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	−5,302	−7.3324	6.4200E-17	6	180.96	7.56E+01	437.2	5.258E+06
107	2,3-Dimethylbutane	C_6H_{14}	79-29-8	77.161	−5,691.1	−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	−6,927	−8.8498	5.4580E-06	2	239.66	6.06E+01	591.15	2.939E+06
109	*cis*-1,2-Dimethylcyclohexane	C_8H_{16}	2207-01-4	78.952	−7,075.4	−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	−6,882.1	−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	−6,941.3	−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	−3,525.6	−3.4444	5.4574E-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	−7,955.5	−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	−6,348.7	−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	2.780E+06
116	Dimethylsilane	C_2H_8Si	1111-74-6	63.08	−4,062.3	−6.425	1.5115E-16	6	122.93	4.15E−01	402	3.561E+06
117	Dimethyl sulfide	C_2H_6S	75-18-3	84.39	−5,740.6	−9.6454	1.0073E-05	2	174.88	7.86E+00	503.04	5.533E+06
118	Dimethyl sulfoxide	C_2H_6OS	67-68-5	56.273	−7,620.6	−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	43.541	−8,204.8	−2.7519	1.0466E-18	6	413.8	1.26E+03	772	2.778E+06
120	1,4-Dioxane	$C_4H_8O_2$	123-91-1	44.494	−5,406.7	−3.1287	2.8913E-18	6	284.95	2.53E+03	587	5.158E+06

121	Diphenyl ether	$C_{12}H_{10}O$	101-84-8	59.969	−8,585.5	−5.1538	1.9983E-18	6	300.03	7.09E+00	766.8	3.097E+06
122	Dipropyl amine	$C_6H_{15}N$	142-84-7	54	−6,018.5	−4.4981	9.9684E-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	−2,598.7	−5.1283	1.4913E-05	2	90.35	1.13E+00	305.32	4.852E+06
126	Ethanol	C_2H_6O	64-17-5	73.304	−7,122.3	−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	−6,227.6	−6.41	1.7914E-17	6	189.6	1.43E+00	523.3	3.850E+06
128	Ethyl amine	C_2H_7N	75-04-7	81.56	−5,596.9	−9.0779	8.7920E-06	2	192.15	1.52E+02	456.15	5.594E+06
129	Ethylbenzene	C_8H_{10}	100-41-4	89.063	−7,733.7	−9.917	5.9860E-06	2	178.2	3.91E−03	617.15	3.590E+06
130	Ethyl benzoate	$C_9H_{10}O_2$	93-89-0	52.923	−7,531.7	−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	5.2573E-18	6	258.15	4.63E−01	655	3.403E+06
132	Ethyl butyrate	$C_6H_{12}O_2$	105-54-4	57.661	−6,346.5	−5.032	8.2534E-18	6	175.15	1.04E−02	571	2.935E+06
133	Ethylcyclohexane	C_8H_{16}	1678-91-7	80.208	−7,203.2	−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	−7,012.7	−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	−2,443	−5.5643	1.9079E-05	2	104	1.26E+02	282.34	5.032E+06
136	Ethylenediamine	$C_2H_8N_2$	107-15-3	73.51	−7,572.7	−7.1435	1.2124E-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	1.6536E-18	6	260.15	2.19E−01	720	8.257E+06
138	Ethyleneimine	C_2H_5N	151-56-4	66.51	−6,019.2	−6.3332	1.0394E-17	6	195.2	9.71E+00	537	6.850E+06
139	Ethylene oxide	C_2H_4O	75-21-8	91.944	−5,293.4	−11.682	1.4902E-02	1	160.65	7.79E+00	469.15	7.255E+06
140	Ethyl formate	$C_3H_6O_2$	109-94-4	73.833	−5,817	−7.809	6.3200E-06	2	193.55	1.81E+01	508.4	4.708E+06
141	2-Ethyl hexanoic acid	$C_8H_{16}O_2$	149-57-5	117.52	−12,991	−12.895	6.1306E-18	6	235	2.86E−04	674.6	2.788E+06
142	Ethylhexyl ether	$C_8H_{18}O$	5756-43-4	77.523	−7,978.8	−7.7757	1.0076E-17	6	180	7.60E−04	583	2.460E+06
143	Ethylisopropyl ether	$C_5H_{12}O$	625-54-7	57.723	−5,236.9	−5.2136	2.2998E-17	6	140	4.31E−03	489	3.415E+06
144	Ethylisopropyl ketone	$C_6H_{12}O$	565-69-5	57.459	−6,356.8	−4.9545	5.2015E-18	6	204.15	9.70E−01	567	3.293E+06
145	Ethyl mercaptan	C_2H_6S	75-08-1	65.551	−5,027.4	−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	−8,007	−12.477	9.0000E-06	2	199.25	7.80E−01	546	3.337E+06
147	Ethylpropyl ether	$C_5H_{12}O$	628-32-0	86.898	−6,646.4	−9.5758	5.9615E-17	6	145.65	1.61E−03	500.23	3.372E+06
148	Ethyltrichlorosilane	$C_2H_5Cl_3Si$	115-21-9	62.614	−6,148.2	−5.84	1.0900E-17	6	167.55	1.85E−02	559.95	3.320E+06
149	Fluorine	F_2	7782-41-4	42.393	−1,103.3	−4.1203	5.7815E-05	2	53.48	2.53E+02	144.12	5.167E+06
150	Fluorobenzene	C_6H_5F	462-06-6	51.915	−5,439	−4.2896	8.7527E-18	6	230.94	1.51E+02	560.09	4.544E+06
151	Fluoroethane	C_2H_5F	353-36-6	56.639	−3,576.5	−5.5801	9.8969E-06	2	129.95	8.37E+00	375.31	5.006E+06
152	Fluoromethane	CH_3F	593-53-3	59.123	−3,043.7	−6.1845	1.6637E-05	2	131.35	4.33E+02	317.42	5.875E+06
153	Formaldehyde	CH_2O	50-00-0	101.51	−4,917.2	−13.765	2.2031E-02	1	181.15	8.87E+02	408	6.594E+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	50.323	−5,378.2	−4.203	3.4697E-06	2	281.45	2.40E+03	588	5.807E+06
156	Furan	C_4H_4O	110-00-9	74.738	−5,417	−8.0636	7.4700E-06	2	187.55	5.00E+01	490.15	5.550E+06
157	Helium-4	He	7440-59-7	11.533	−8.99	0.6724	2.7430E-01	1	1.76	1.46E+03	5.2	2.285E+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	92.252	−8,349	−10.274	5.9252E-06	2	229.8	1.45E+00	616.8	3.155E+06
160	Heptane	C_7H_{16}	142-82-5	87.829	−6,996.4	−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	120.47	−13,106	−13.31	5.8384E-18	6	265.83	4.34E−02	677.3	3.039E+06
162	1-Heptanol	$C_7H_{16}O$	111-70-6	147.41	−13,466	−17.353	1.1284E-17	6	239.15	1.95E−02	632.3	3.013E+06
163	2-Heptanol	$C_7H_{16}O$	543-49-7	124.23	−11,637	−14.148	6.9486E-17	5.7	230	3.68E−02	608.3	2.995E+06
164	3-Heptanone	$C_7H_{14}O$	106-35-4	78.463	−8,077.2	−7.9062	8.0521E-18	6	234.15	2.30E+00	606.6	2.919E+06
165	2-Heptanone	$C_7H_{14}O$	110-43-0	75.494	−7,896.5	−7.5047	8.9130E-18	6	238.15	3.54E+00	611.4	2.946E+06
166	1-Heptene	C_7H_{14}	592-76-7	65.922	−6,189	−6.3629	2.0091E-17	6	154.12	1.86E−03	537.4	2.921E+06
167	Heptyl mercaptan	$C_7H_{16}S$	1639-09-4	79.858	−8,501.8	−8.1043	8.1501E-18	6	229.92	3.05E−01	645	2.772E+06
168	1-Heptyne	C_7H_{12}	628-71-7	59.083	−6,031.8	−5.3072	1.4357E-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	81.507	−7,776.8	−8.4516	1.5143E-17	6	217.15	1.25E+00	591	3.461E+06
171	Hexane	C_6H_{14}	110-54-3	104.65	−6,995.5	−12.702	1.2381E-05	2	177.83	9.02E−01	507.6	3.045E+06
172	Hexanoic acid	$C_6H_{12}O_2$	142-62-1	114.05	−12,332	−12.45	5.6253E-18	6	269.25	2.43E−01	660.2	3.284E+06
173	1-Hexanol	$C_6H_{14}O$	111-27-3	135.421	−12,288	−15.732	1.2701E-17	6	228.55	2.25E−02	611.3	3.441E+06
174	2-Hexanol	$C_6H_{14}O$	626-93-7	109.42	−10,449	−12.051	2.6122E-46	16	223	7.44E−02	585.3	3.298E+06
175	2-Hexanone	$C_6H_{12}O$	591-78-6	107.44	−8,528.6	−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	−7,242.9	−7.2569	1.2741E-17	6	217.5	2.22E+00	582.82	3.322E+06
177	1-Hexene	C_6H_{12}	592-41-6	51.024	−4,986.4	−4.2463	1.6768E-17	6	133.39	7.96E−04	504	3.212E+06
178	3-Hexyne	C_6H_{10}	928-49-4	47.091	−5,104	−3.6371	5.1621E-04	1	170.05	2.20E−01	544	3.540E+06
179	Hexyl mercaptan	$C_6H_{14}S$	111-31-9	68.467	−7,390.5	−6.5456	7.7611E-18	6	192.62	1.31E−02	623	3.079E+06
180	1-Hexyne	C_6H_{10}	693-02-7	133.2	−7,492.9	−18.405	2.2062E-02	1	141.25	3.92E−04	516.2	3.635E+06
181	2-Hexyne	C_6H_{10}	764-35-2	123.71	−7,639	−16.451	1.6495E-02	1	183.65	5.40E−01	549	3.530E+06
182	Hydrazine	H_4N_2	302-01-2	76.858	−7,245.2	−8.22	6.1557E-03	1	274.69	4.08E+02	653.15	1.473E+07
183	Hydrogen	H_2	1333-74-0	12.69	−94.896	1.1125	3.2915E-04	2	13.95	7.21E+03	33.19	1.315E+06

TABLE 2-8 Vapor Pressure of Inorganic and Organic Liquids, ln P = C1 + C2/T + C3 ln T + C4 T^{C5}, P in Pa (*Continued*)

No.	Name	Formula	CAS no.	C1	C2	C3	C4	C5	T_{min}, K	P at T_{min}	T_{max}, K	P at T_{max}
184	Hydrogen bromide	HBr	10035-10-6	29.315	−2,424.5	−1.1354	2.3806E-18	6	185.15	2.95E+04	363.15	8.463E+06
185	Hydrogen chloride	HCl	7647-01-0	104.27	−3,731.2	−15.047	3.1340E-02	1	158.97	1.35E+04	324.65	8.356E+06
186	Hydrogen cyanide	CHN	74-90-8	36.75	−3,927.1	−2.1245	3.8948E-17	6	259.83	1.87E+04	456.65	5.353E+06
187	Hydrogen fluoride	HF	7664-39-3	59.544	−4,143.8	−6.1764	1.4161E-05	2	189.79	3.37E+02	461.15	6.487E+06
188	Hydrogen sulfide	H_2S	7783-06-4	85.584	−3,839.9	−11.199	1.8848E-02	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	1.4310E-17	6	227.15	7.82E−02	605	3.683E+06
190	Isopropyl amine	C_3H_9N	75-31-0	136.66	−7,201.5	−18.934	2.2255E-02	1	177.95	7.73E+00	471.85	4.540E+06
191	Malonic acid	$C_3H_4O_4$	141-82-2	122.92	−16,258	−13.113	2.0609E-18	6	407.95	7.03E+01	805	5.652E+06
192	Methacrylic acid	$C_4H_6O_2$	79-41-4	109.53	−10,410	−12.289	3.1990E-06	2	288.15	5.86E+01	662	4.812E+06
193	Methane	CH_4	74-82-8	39.205	−1,324.4	−3.4366	3.1019E-05	2	90.69	1.17E+04	190.56	4.590E+06
194	Methanol	CH_4O	67-56-1	82.718	−6,904.5	−8.8622	7.4664E-06	2	175.47	1.11E−01	512.5	8.146E+06
195	*N*-Methyl acetamide	C_3H_7NO	79-16-3	79.128	−9,523.9	−7.7355	3.1616E-18	6	301.15	2.86E+01	718	4.997E+06
196	Methyl acetate	$C_3H_6O_2$	79-20-9	61.267	−5,618.6	−5.6473	2.1080E-17	6	175.15	1.02E+00	506.55	4.695E+06
197	Methyl acetylene	C_3H_4	74-99-7	50.242	−3,811.9	−4.2526	6.5326E-17	6	170.45	4.15E+02	402.4	5.619E+06
198	Methyl acrylate	$C_4H_6O_2$	96-33-3	107.69	−7,027.2	−13.916	1.5185E-02	1	196.32	4.07E+00	536	4.277E+06
199	Methyl amine	CH_5N	74-89-5	75.206	−5,082.8	−8.0919	8.1130E-06	2	179.69	1.77E+02	430.05	7.414E+06
200	Methyl benzoate	$C_8H_8O_2$	93-58-3	84.828	−9,334.7	−8.7063	6.1723E-18	6	260.75	1.81E+00	693	3.590E+06
201	3-Methyl-1,2-butadiene	C_5H_8	598-25-4	66.575	−5,213.4	−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	−4,976	−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	−9,575.4	−8.6164	5.6124E-18	6	193	6.94E−05	643	3.887E+06
204	3-Methyl-1-butanol	$C_5H_{12}O$	123-51-3	121.85	−10,976	−13.869	1.4283E-17	6	155.95	8.67E−09	577.2	3.916E+06
205	2-Methyl-1-butene	C_5H_{10}	563-46-2	93.131	−5,525.4	−11.852	1.4205E-02	1	135.58	2.05E−02	465	3.465E+06
206	2-Methyl-2-butene	C_5H_{10}	513-35-9	83.927	−5,640.5	−9.6453	1.1121E-05	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	−5,448.8	−12.384	1.5643E-02	1	160.15	2.92E+00	492	4.469E+06
208	Methylbutyl ether	$C_5H_{12}O$	628-28-4	60.164	−5,621.7	−5.53	1.8629E-17	6	157.48	2.99E−02	512.74	3.377E+06
209	Methylbutyl sulfide	$C_5H_{12}S$	628-29-5	96.344	−7,856.3	−11.058	7.3080E-06	2	175.3	4.61E−03	593	3.464E+06
210	3-Methyl-1-butyne	C_5H_8	598-23-2	69.459	−5,250	−7.1125	7.9289E-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	−6,885.7	−7.0944	1.4903E-17	6	187.35	1.34E−01	554.5	3.480E+06
212	Methylchlorosilane	CH_5ClSi	993-00-0	95.984	−5,401.7	−11.829	1.8092E-05	2	139.05	4.12E−01	442	4.170E+06
213	Methylcyclohexane	C_7H_{14}	108-87-2	92.684	−7,080.8	−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	1.0918E-05	2	280.15	4.56E+01	614	3.808E+06
216	*trans*-2-Methylcyclohexanol	$C_7H_{14}O$	7443-52-9	54.179	−7,477.2	−4.22	3.5225E-18	6	269.15	1.62E+01	617	3.767E+06
217	Methylcyclopentane	C_6H_{12}	96-37-7	55.368	−5,149.8	−5.0136	3.2220E-06	2	130.73	2.25E−04	532.7	3.759E+06
218	1-Methylcyclopentene	C_6H_{10}	693-89-0	52.732	−5,286.9	−4.4509	1.0883E-17	6	146.62	3.98E−03	542	4.130E+06
219	3-Methylcyclopentene	C_6H_{10}	1120-62-3	52.601	−5,120.3	−4.4554	1.3288E-17	6	115	2.12E−06	526	4.129E+06
220	Methyldichlorosilane	CH_4Cl_2Si	75-54-7	79.788	−5,420	−9.0702	1.1489E-05	2	182.55	2.58E+01	483	3.964E+06
221	Methylethyl ether	C_3H_8O	540-67-0	78.586	−5,176.3	−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	−6,143.6	−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	−6,114.1	−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	−5,606.1	−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	−5,339.6	−5.2362	2.0767E-17	6	150	2.13E−02	497	3.416E+06
226	Methylisobutyl ketone	$C_6H_{12}O$	108-10-1	80.503	−7,421.8	−8.379	1.8114E-17	6	189.15	6.99E−02	574.6	3.272E+06
227	Methyl Isocyanate	C_2H_3NO	624-83-9	57.612	−5,197.9	−5.1269	2.1702E-17	6	256.15	7.28E+03	488	5.480E+06
228	Methylisopropyl ether	$C_4H_{10}O$	598-53-8	53.867	−4,701	−4.7052	2.8791E-17	6	127.93	3.32E−03	464.48	3.764E+06
229	Methylisopropyl ketone	$C_5H_{10}O$	563-80-4	45.242	−5,324.4	−3.2551	3.0363E-18	6	180.15	2.95E−01	553.4	3.792E+06
230	Methylisopropyl sulfide	$C_4H_{10}S$	1551-21-9	52.82	−5,437.7	−4.442	9.5103E-18	6	171.64	1.80E−01	553.1	4.022E+06
231	Methyl mercaptan	CH_4S	74-93-1	54.15	−4,337.7	−4.8127	4.5000E-17	6	150.18	3.15E+00	469.95	7.231E+06
232	Methyl methacrylate	$C_5H_8O_2$	80-62-6	107.36	−8,085.3	−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	4.4629E-18	6	240	4.19E−04	694	2.545E+06
234	2-Methylpentane	C_6H_{14}	107-83-5	53.579	−5,041.2	−4.6404	1.9443E-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	−6,188.9	−5.706	1.1767E-17	6	176	6.33E−02	546.49	3.041E+06
236	2-Methylpropane	C_4H_{10}	75-28-5	108.43	−5,039.9	−15.012	2.2725E-02	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	1.3703E-05	2	298.97	5.88E+03	506.2	3.957E+06
238	2-Methyl propene	C_4H_8	115-11-7	78.01	−4,634.1	−8.9575	1.3413E-05	2	132.81	6.45E−01	417.9	4.004E+06
239	Methyl propionate	$C_4H_8O_2$	554-12-1	70.717	−6,439.7	−6.9845	2.0129E-17	6	185.65	6.34E−01	530.6	4.028E+06
240	Methylpropyl ether	$C_4H_{10}O$	557-17-5	67.942	−5,419.1	−6.8067	4.7778E-17	6	133.97	2.90E−03	476.25	3.802E+06
241	Methylpropyl sulfide	$C_4H_{10}S$	3877-15-4	83.711	−6,786.9	−9.2526	6.6666E-06	2	160.17	4.26E−03	565	3.972E+06
242	Methylsilane	CH_6Si	992-94-9	37.205	−2,590.3	−2.5993	6.0508E-06	2	116.34	1.43E+01	352.5	4.702E+06

243	α-Methyl styrene	C_9H_{10}	98-83-9	56.485	−6,954.2	−4.7889	2.7753E-18	6	249.95	9.23E+00	654	3.341E+06
244	Methyl *tert*-butyl ether	$C_5H_{12}O$	1634-04-4	57.1511	−5,201.7	−5.1429	1.6529E-17	6	164.55	4.93E−01	497.1	3.285E+06
245	Methyl vinyl ether	C_3H_6O	107-25-5	51.085	−4,271	−4.307	3.0530E-17	6	151.15	3.37E+00	437	4.583E+06
246	Naphthalene	$C_{10}H_8$	91-20-3	62.964	−8,137.5	−5.6317	2.2675E-18	6	353.43	9.91E+02	748.4	4.069E+06
247	Neon	Ne	7440-01-9	29.755	−271.06	−2.6081	5.2700E-04	2	24.56	4.38E+04	44.4	2.665E+06
248	Nitroethane	$C_2H_5NO_2$	79-24-3	75.632	−7,202.3	−7.6464	1.8250E-17	6	183.63	3.18E-02	593	5.159E+06
249	Nitrogen	N_2	7727-37-9	58.282	−1,084.1	−8.3144	4.4127E-02	1	63.15	1.25E+04	126.2	3.391E+06
250	Nitrogen trifluoride	F_3N	7783-54-2	68.149	−2,257.9	−8.9118	2.3233E-02	1	66.46	1.86E−01	234	4.500E+06
251	Nitromethane	CH_3NO_2	75-52-5	57.278	−6,089	−4.9821	1.2154E-17	6	244.6	1.47E+02	588.15	6.309E+06
252	Nitrous oxide	N_2O	10024-97-2	96.512	−4,045	−12.277	2.8860E-05	2	182.3	8.69E+04	309.57	7.278E+06
253	Nitric oxide	NO	10102-43-9	72.974	−2,650	−8.261	9.7000E-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	337.71	−18,506	−50.224	4.7345E-02	1	255.15	3.42E−01	658	2.743E+06
256	Nonane	C_9H_{20}	111-84-2	109.35	−9,030.4	−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	137.6	−14,948	−15.618	5.5660E-18	6	285.55	4.71E−02	710.7	2.502E+06
258	1-Nonanol	$C_9H_{20}O$	143-08-8	162.854	−15,205	−19.424	1.0722E-17	6	268.15	8.55E−02	670.9	2.522E+06
259	2-Nonanol	$C_9H_{20}O$	628-99-9	146.46	−13,813	−17.158	8.6279E-40	14	238.15	4.32E−03	649.5	2.551E+06
260	1-Nonene	C_9H_{18}	124-11-8	63.313	−7,040.4	−5.8055	7.5753E-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	8.8955E-18	6	253.05	1.47E−01	681	2.330E+06
262	1-Nonyne	C_9H_{16}	3452-09-3	114.77	−9,430.8	−13.631	8.1918E-06	2	223.15	4.50E−01	598.05	2.620E+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	1.256E+06
264	Octanal	$C_8H_{16}O$	124-13-0	83.601	−8,865.8	−8.5711	7.9446E-18	6	246	1.46E+00	638.9	2.951E+06
265	Octane	C_8H_{18}	111-65-9	96.084	−7,900.2	−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	140.16	−14,813	−16.004	6.4239E-18	6	289.65	1.83E−01	694.26	2.761E+06
267	1-Octanol	$C_8H_{18}O$	111-87-5	144.111	−13,667	−16.826	9.3666E-18	6	257.65	9.60E−02	652.3	2.782E+06
268	2-Octanol	$C_8H_{18}O$	123-96-6	133.41	−12,630	−15.369	2.9939E-41	14	241.55	4.04E−02	629.8	2.754E+06
269	2-Octanone	$C_8H_{16}O$	111-13-7	63.775	−7,711.3	−5.7359	3.0902E-18	6	252.85	4.68E+00	632.7	2.647E+06
270	3-Octanone	$C_8H_{16}O$	106-68-3	72.382	−8,054.8	−7.0002	5.8276E-18	6	255.55	7.84E+00	627.7	2.705E+06
271	1-Octene	C_8H_{16}	111-66-0	74.936	−7,155.9	−7.5843	1.7106E-17	6	171.45	2.98E−03	566.9	2.663E+06
272	Octyl mercaptan	$C_8H_{18}S$	111-88-6	78.368	−8,855.4	−7.8202	5.6629E-18	6	223.95	3.05E−02	667.3	2.523E+06
273	1-Octyne	C_8H_{14}	629-05-0	64.612	−6,802.5	−6.0261	1.1013E-17	6	193.55	1.04E−01	574	2.880E+06
274	Oxalic acid	$C_2H_2O_4$	144-62-7	122.04	−16,050	−12.986	2.0871E-18	6	462.65	2.15E+03	804	7.060E+06
275	Oxygen	O_2	7782-44-7	51.245	−1,200.2	−6.4361	2.8405E-02	1	54.36	1.48E+02	154.58	5.021E+06
276	Ozone	O_3	10028-15-6	40.067	−2,204.8	−2.9351	7.7520E-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	149.58	−8,890	−20.697	2.2101E-02	1	182	5.23E−02	566.1	3.969E+06
279	Pentane	C_5H_{12}	109-66-0	78.741	−5,420.3	−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	101.7	−10,955	−10.829	7.1880E-18	6	239.15	3.28E−02	639.16	3.589E+06
281	1-Pentanol	$C_5H_{12}O$	71-41-0	114.748	−10,643	−12.858	1.2491E-17	6	195.56	5.48E−04	588.1	3.896E+06
282	2-Pentanol	$C_5H_{12}O$	6032-29-7	122.26	−10,774	−13.943	1.0700E-42	15	200	4.15E−03	561	3.709E+06
283	2-Pentanone	$C_5H_{10}O$	107-87-9	84.635	−7,078.4	−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	−5,415.1	−3.0913	1.8580E-18	6	234.18	7.34E+01	560.95	3.699E+06
285	1-Pentene	C_5H_{10}	109-67-1	46.994	−4,289.5	−3.7345	2.5424E-17	6	108.02	3.70E−05	464.8	3.562E+06
286	2-Pentyl mercaptan	$C_5H_{12}S$	2084-19-7	58.985	−6,193.1	−5.2746	7.3986E-18	6	160.75	1.77E−03	584.3	3.537E+06
287	Pentyl mercaptan	$C_5H_{12}S$	110-66-7	67.309	−6,880.8	−6.4449	1.0148E-17	6	197.45	2.01E−01	598	3.474E+06
288	1-Pentyne	C_5H_8	627-19-0	82.805	−5,683.8	−9.4301	1.0767E-05	2	167.45	2.40E+00	481.2	4.170E+06
289	2-Pentyne	C_5H_8	627-21-4	137.29	−7,447.1	−19.01	2.1415E-02	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	1.0850E-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	6.7603E-18	6	314.06	1.88E+02	694.25	6.059E+06
292	Phenyl isocyanate	C_7H_5NO	103-71-9	86.779	−8,101.8	−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	−3,682.7	−5.5662	6.5133E-06	2	136.87	1.83E+01	394	5.218E+06
295	Propane	C_3H_8	74-98-6	59.078	−3,492.6	−6.0669	1.0919E-05	2	85.47	1.68E−04	369.83	4.214E+06
296	1-Propanol	C_3H_8O	71-23-8	84.6642	−8,307.2	−8.5767	7.5091E-18	6	146.95	4.28E−07	536.8	5.170E+06
297	2-Propanol	C_3H_8O	67-63-0	96.094	−8,575.4	−10.292	1.6665E-17	6	185.26	1.95E−02	508.3	4.783E+06
298	Propenylcyclohexene	C_9H_{14}	13511-13-2	64.268	−7,298.9	−5.9109	4.8482E-18	6	199	2.48E−02	636	3.130E+06
299	Propionaldehyde	C_3H_6O	123-38-6	80.581	−5,896.1	−8.9301	8.2236E-06	2	170	1.31E+00	504.4	4.919E+06
300	Propionic acid	$C_3H_6O_2$	79-09-4	54.552	−7,149.4	−4.2769	1.1843E-18	6	252.45	1.31E+01	600.81	4.608E+06
301	Propionitrile	C_3H_5N	107-12-0	82.699	−6,703.5	−9.1506	7.5424E-06	2	180.26	1.69E−01	564.4	4.191E+06
302	Propyl acetate	$C_5H_{10}O_2$	109-60-4	115.16	−8,433.9	−13.934	1.0346E-05	2	178.15	1.71E−02	549.73	3.366E+06
303	Propyl amine	C_3H_9N	107-10-8	58.398	−5,312.7	−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	−8,276.8	−10.176	5.6240E-06	2	173.55	1.81E−04	638.35	3.202E+06
305	Propylene	C_3H_6	115-07-1	43.905	−3,097.8	−3.4425	9.9989E-17	6	87.89	1.17E−03	364.85	4.599E+06

TABLE 2-8 Vapor Pressure of Inorganic and Organic Liquids, ln P = C1 + C2/T + C3 ln T + C4 T^{C5}, P in Pa (*Concluded*)

No.	Name	Formula	CAS no.	C1	C2	C3	C4	C5	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	−7,535.9	−12.348	9.6020E−06	2	180.25	2.11E−01	538	4.031E+06
307	2-Propyl mercaptan	C_3H_8S	75-33-2	60.43	−5,276.9	−5.6572	2.6039E−17	6	142.61	9.73E−03	517	4.752E+06
308	Propyl mercaptan	C_3H_8S	107-03-9	62.165	−5,624	−5.8595	2.0597E−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	2.1564E−05	2	213.15	9.29E−05	626	6.041E+06
310	Quinone	$C_6H_4O_2$	106-51-4	48.651	−7,289.5	−3.4453	1.0068E−18	6	388.85	1.17E+04	683	5.925E+06
311	Silicon tetrafluoride	F_4Si	7783-61-1	272.85	−9,548.9	−40.089	6.3699E−15	6	186.35	2.21E+05	259	3.748E+06
312	Styrene	C_8H_8	100-42-5	105.93	−8,685.9	−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	128.65	−16,958	−13.872	2.1559E−18	6	460.65	8.85E+02	806	4.727E+06
314	Sulfur dioxide	O_2S	7446-09-5	47.365	−4,084.5	−3.6469	1.7990E−17	6	197.67	1.67E+03	430.75	7.860E+06
315	Sulfur hexafluoride	F_6S	2551-62-4	29.16	−2,383.6	−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	7.2350E−17	6	289.95	2.09E+04	490.85	8.192E+06
317	Terephthalic acid	$C_8H_6O_4$	100-21-0	248.72	−32,238	−30.009	4.7950E−06	2	700.15	4.57E+03	1113	3.943E+06
318	*o*-Terphenyl	$C_{18}H_{14}$	84-15-1	110.52	−14,045	−11.861	2.2121E−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	−5,305.4	−4.7627	1.4291E−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	1.4506E−02	1	237.38	1.33E−01	720	3.624E+06
322	Tetrahydrothiophene	C_4H_8S	110-01-0	75.881	−6,910.6	−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	−5,901.5	−5.2048	9.1301E−18	6	373.96	8.69E+04	568	2.871E+06
324	Thiophene	C_4H_4S	110-02-1	93.193	−7,001.5	−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	−6,729.8	−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	−6,041.8	−4.5383	4.9833E−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	−5,681.9	−4.9815	1.2363E−17	6	158.45	1.06E−02	535.15	3.037E+06
329	Trimethyl amine	C_3H_9N	75-50-3	134.68	−6,055.8	−19.415	2.8619E−02	1	156.08	9.92E+00	433.25	4.102E+06
330	1,2,3-Trimethylbenzene	C_9H_{12}	526-73-8	78.341	−8,019.8	−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	−8,215.9	−9.2166	4.7979E−06	2	229.33	6.93E−01	649.1	3.212E+06
332	2,2,4-Trimethylpentane	C_8H_{18}	540-84-1	84.912	−6,722.2	−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	−6,903.7	−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	2.7381E−05	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	1.7403E−05	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	182.571	−17,112	−22.125	1.12835E−17	6	288.45	1.26E−01	703.9	2.120E+06
338	Vinyl acetate	$C_4H_6O_2$	108-05-4	57.406	−5,702.8	−5.0307	1.1042E−17	6	180.35	7.06E−01	519.13	3.930E+06
339	Vinyl acetylene	C_4H_4	689-97-4	55.682	−4,439.3	−5.0136	1.9650E−17	6	173.15	6.69E+01	454	4.887E+06
340	Vinyl chloride	C_2H_3Cl	75-01-4	91.432	−5,141.7	−10.981	1.4318E−05	2	119.36	1.92E−02	432	5.750E+06
341	Vinyl trichlorosilane	$C_2H_3Cl_3Si$	75-94-5	54.571	−5,561.5	−4.712	1.0702E−17	6	178.35	3.54E−01	543.15	3.058E+06
342	Water	H_2O	7732-18-5	73.649	−7,258.2	−7.3037	4.1653E−06	2	273.16	6.11E+02	647.096	2.193E+07
343	*m*-Xylene	C_8H_{10}	108-38-3	85.099	−7,615.9	−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	−7,955.2	−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	−7,741.2	−9.8693	6.0770E−06	2	286.41	5.76E+02	616.2	3.501E+06

Vapor pressure P_s is calculated by

$$P_s = \exp(C1 + C2/T + C3 \ln T + C4T^{C5})$$

where P_s is in Pa and T is in K. All substances are listed by chemical family in Table 2-6 and by formula in Table 2-7.

Values in this table were taken from the Design Institute for Physical Properties (DIPPR) of the American Institute of Chemical Engineers (AIChE), copyright 2007 AIChE and reproduced with permission of AIChE and of the DIPPR Evaluated Process Design Data Project Steering Committee. Their source should be cited as R. L. Rowley, W. V. Wilding, J. L. Oscarson, Y. Yang, N. A. Zundel, T. E. Daubert, R. P. Danner, DIPPR® Data Compilation of Pure Chemical Properties, Design Institute for Physical Properties, AIChE, New York (2007).

The number of digits provided for values at T_{min} and T_{max} was chosen for uniformity of appearance and formatting; these do not represent the uncertainties of the physical quantities, but are the result of calculations from the standard thermophysical property formulations within a fixed format.