

**TABLE 2-179 Enthalpies and Gibbs Energies of Formation, Entropies, and Net Enthalpies of Combustion of Inorganic and Organic Compounds at 298.15 K**

Cmpd. no.	Name	Formula	CAS no.	Mol. wt.	Ideal gas enthalpy of formation, J/kmol × 1E-07	Ideal gas Gibbs energy of formation, J/kmol × 1E-07	Ideal gas entropy, J/(kmol·K) × 1E-05	Standard net enthalpy of combustion, J/kmol × 1E-09
1	Acetaldehyde	C <sub>2</sub> H <sub>4</sub> O	75-07-0	44.053	-16.64	-13.33	2.642	-1.1045
2	Acetamide	C <sub>2</sub> H <sub>5</sub> NO	60-35-5	59.067	-23.83	-15.96	2.722	-1.0741
3	Acetic acid	C <sub>2</sub> H <sub>4</sub> O <sub>2</sub>	64-19-7	60.052	-46.11	-40.3	2.825	-0.7866
4	Acetic anhydride	C <sub>4</sub> H <sub>6</sub> O <sub>3</sub>	108-24-7	102.089	-57.25	-47.34	3.899	-1.675
5	Acetone	C <sub>3</sub> H <sub>6</sub> O	67-64-1	58.079	-21.57	-15.13	2.954	-1.659
6	Acetonitrile	C <sub>2</sub> H <sub>3</sub> N	75-05-8	41.052	7.404	9.1868	2.4329	-1.19043
7	Acetylene	C <sub>2</sub> H <sub>2</sub>	74-86-2	26.037	22.82	21.068	2.0081	-1.257
8	Acrolein	C <sub>3</sub> H <sub>4</sub> O	107-02-8	56.063	-8.18	-5.68	2.97	-1.5468
9	Acrylic acid	C <sub>3</sub> H <sub>4</sub> O <sub>2</sub>	79-10-7	72.063	-35.591	-30.6	3.15	-1.32717
10	Acrylonitrile	C <sub>3</sub> H <sub>3</sub> N	107-13-1	53.063	18.37	19.37	2.753	-1.69
11	Air	Mixture	132259-10-0	28.960	0	0	1.99	0
12	Ammonia	H <sub>3</sub> N	7664-41-7	17.031	-4.5898	-1.64	1.9266	-0.31683
13	Anisole	C <sub>7</sub> H <sub>8</sub> O	100-66-3	108.138	-6.79	2.27	3.61	-3.6072
14	Argon	Ar	7440-37-1	39.948	0	0	1.54737	0
15	Benzamide	C <sub>7</sub> H <sub>7</sub> NO	55-21-0	121.137	-10.09	-0.211	3.641	-3.39877
16	Benzene	C <sub>6</sub> H <sub>6</sub>	71-43-2	78.112	8.288	12.96	2.693	-3.136
17	Benzenethiol	C <sub>6</sub> H <sub>6</sub> S	108-98-5	110.177	11.15	14.76	3.369	-3.4474
18	Benzoic acid	C <sub>7</sub> H <sub>6</sub> O <sub>2</sub>	65-85-0	122.121	-29.41	-21.42	3.69	-3.0951
19	Benzonitrile	C <sub>7</sub> H <sub>5</sub> N	100-47-0	103.121	21.57	25.78	3.21	-3.5238
20	Benzophenone	C <sub>13</sub> H <sub>10</sub> O	119-61-9	182.218	5.68	17.3	4.4	-6.2876
21	Benzyl alcohol	C <sub>7</sub> H <sub>8</sub> O	100-51-6	108.138	-9.025	-0.254	3.713	-3.56
22	Benzyl ethyl ether	C <sub>9</sub> H <sub>12</sub> O	539-30-0	136.191	-11.5	3.37	4.39	-4.83
23	Benzyl mercaptan	C <sub>7</sub> H <sub>8</sub> S	100-53-8	124.203	9.33	16.3	3.607	-4.06
24	Biphenyl	C <sub>12</sub> H <sub>10</sub>	92-52-4	154.208	17.849	27.63	3.9367	-6.248
25	Bromine	Br <sub>2</sub>	7726-95-6	159.808	3.091	0.314	2.4535	
26	Bromobenzene	C <sub>6</sub> H <sub>5</sub> Br	108-86-1	157.008	10.5018	13.8532	3.24386	-3.01917
27	Bromoethane	C <sub>2</sub> H <sub>5</sub> Br	74-96-4	108.965	-6.36	-2.582	2.873	-1.285
28	Bromomethane	CH <sub>3</sub> Br	74-83-9	94.939	-3.77	-2.819	2.458	-0.70542
29	1,2-Butadiene	C <sub>4</sub> H <sub>6</sub>	590-19-2	54.090	16.23	19.86	2.93	-2.4617
30	1,3-Butadiene	C <sub>4</sub> H <sub>6</sub>	106-99-0	54.090	10.924	14.972	2.7889	-2.409
31	Butane	C <sub>4</sub> H <sub>10</sub>	106-97-8	58.122	-12.579	-1.67	3.0991	-2.65732
32	1,2-Butanediol	C <sub>4</sub> H <sub>10</sub> O <sub>2</sub>	584-03-2	90.121	-44.58	-30.44	4.065	-2.2678
33	1,3-Butanediol	C <sub>4</sub> H <sub>10</sub> O <sub>2</sub>	107-88-0	90.121	-43.32	-29.18	4.065	-2.2824
34	1-Butanol	C <sub>4</sub> H <sub>10</sub> O	71-36-3	74.122	-27.51	-15.07	3.618	-2.454
35	2-Butanol	C <sub>4</sub> H <sub>10</sub> O	78-92-2	74.122	-29.29	-16.7	3.566	-2.446
36	1-Butene	C <sub>4</sub> H <sub>8</sub>	106-98-9	56.106	-0.05	7.041	3.074	-2.5408
37	cis-2-Butene	C <sub>4</sub> H <sub>8</sub>	590-18-1	56.106	-0.74	6.536	3.012	-2.5339
38	trans-2-Butene	C <sub>4</sub> H <sub>8</sub>	624-64-6	56.106	-1.1	6.32	2.965	-2.53
39	Butyl acetate	C <sub>8</sub> H <sub>12</sub> O <sub>2</sub>	123-86-4	116.158	-48.56	-31.26	4.425	-3.28
40	Butylbenzene	C <sub>10</sub> H <sub>14</sub>	104-51-8	134.218	-1.314	14.54	4.3949	-5.5644
41	Butyl mercaptan	C <sub>4</sub> H <sub>10</sub> S	109-79-5	90.187	-8.78	1.139	3.752	-2.9554
42	sec-Butyl mercaptan	C <sub>4</sub> H <sub>10</sub> S	513-53-1	90.187	-9.66	0.512	3.667	-2.949
43	1-Butyne	C <sub>4</sub> H <sub>6</sub>	107-00-6	54.090	16.52	20.225	2.9039	-2.4647
44	Butyraldehyde	C <sub>4</sub> H <sub>8</sub> O	123-72-8	72.106	-20.7	-11.63	3.4365	-2.3035
45	Butyric acid	C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	107-92-6	88.105	-47.58	-36	3.601	-2.008
46	Butyronitrile	C <sub>4</sub> H <sub>7</sub> N	109-74-0	69.105	3.40578	10.8658	3.25432	-2.4148
47	Carbon dioxide	CO <sub>2</sub>	124-38-9	44.010	-39.351	-39.437	2.13677	
48	Carbon disulfide	CS <sub>2</sub>	75-15-0	76.141	11.69	6.68	2.379	-1.0769
49	Carbon monoxide	CO	630-08-0	28.010	-11.053	-13.715	1.97556	-0.283
50	Carbon tetrachloride	CCl <sub>4</sub>	56-23-5	153.823	-9.581	-5.354	3.0991	-0.2653
51	Carbon tetrafluoride	CF <sub>4</sub>	75-73-0	88.004	-92.21	-87.76	2.62	0.5286
52	Chlorine	Cl <sub>2</sub>	7782-50-5	70.906	0	0	2.22972	
53	Chlorobenzene	C <sub>6</sub> H <sub>5</sub> Cl	108-90-7	112.557	5.109	9.829	3.1403	-2.976
54	Chloroethane	C <sub>2</sub> H <sub>5</sub> Cl	75-00-3	64.514	-11.226	-6.0499	2.7578	-1.2849
55	Chloroform	CHCl <sub>3</sub>	67-66-3	119.378	-10.29	-7.01	2.956	-0.38
56	Chloromethane	CH <sub>3</sub> Cl	74-87-3	50.488	-8.196	-5.844	2.3418	-0.67538
57	1-Chloropropane	C <sub>3</sub> H <sub>7</sub> Cl	540-54-5	78.541	-13.318	-5.261	3.1547	-1.867
58	2-Chloropropane	C <sub>3</sub> H <sub>7</sub> Cl	75-29-6	78.541	-14.477	-6.136	3.0594	-1.863

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Cmpd. no.	Name	Formula	CAS no.	Mol. wt.	Ideal gas enthalpy of formation, J/kmol $\times 1\text{E-}07$	Ideal gas Gibbs energy of formation, J/kmol $\times 1\text{E-}07$	Ideal gas entropy, J/(kmol $\times 1\text{E-}05$ )	Standard net enthalpy of combustion, J/kmol $\times 1\text{E-}09$
59	<i>m</i> -Cresol	C <sub>7</sub> H <sub>8</sub> O	108-39-4	108.138	-13.23	-4.019	3.5604	-3.52783
60	<i>o</i> -Cresol	C <sub>7</sub> H <sub>8</sub> O	95-48-7	108.138	-12.857	-3.543	3.5259	-3.528
61	<i>p</i> -Cresol	C <sub>7</sub> H <sub>8</sub> O	106-44-5	108.138	-12.535	-3.166	3.5075	-3.52256
62	Cumene	C <sub>9</sub> H <sub>12</sub>	98-82-8	120.192	0.4	13.79	3.86	-4.951
63	Cyanogen	C <sub>2</sub> N <sub>2</sub>	460-19-5	52.035	30.9072	29.7598	2.41463	-1.0961
64	Cyclobutane	C <sub>4</sub> H <sub>8</sub>	287-23-0	56.106	2.85	11.22	2.64396	-2.5678
65	Cyclohexane	C <sub>6</sub> H <sub>12</sub>	110-82-7	84.159	-12.33	3.191	2.97276	-3.656
66	Cyclohexanol	C <sub>6</sub> H <sub>12</sub> O	108-93-0	100.159	-28.62	-10.95	3.277	-3.4639
67	Cyclohexanone	C <sub>6</sub> H <sub>10</sub> O	108-94-1	98.143	-22.61	-9.028	3.3426	-3.299
68	Cyclohexene	C <sub>6</sub> H <sub>10</sub>	110-83-8	82.144	-0.46	10.77	3.10518	-3.532
69	Cyclopentane	C <sub>5</sub> H <sub>10</sub>	287-92-3	70.133	-7.703	3.885	2.929	-3.0709
70	Cyclopentene	C <sub>5</sub> H <sub>8</sub>	142-29-0	68.117	3.23	11.05	2.91267	-2.9393
71	Cyclopropane	C <sub>3</sub> H <sub>6</sub>	75-19-4	42.080	5.33	10.44	2.37378	-1.9593
72	Cyclohexyl mercaptan	C <sub>6</sub> H <sub>12</sub> S	1569-69-3	116.224	-9.602	4.886	3.646	-3.968
73	Decanal	C <sub>10</sub> H <sub>20</sub> O	112-31-2	156.265	-33.17	-6.739	5.7912	-5.959
74	Decane	C <sub>10</sub> H <sub>22</sub>	124-18-5	142.282	-24.946	3.318	5.457	-6.29422
75	Decanoic acid	C <sub>10</sub> H <sub>20</sub> O <sub>2</sub>	334-48-5	172.265	-59.43	-30.5	5.99	-5.72
76	1-Decanol	C <sub>10</sub> H <sub>22</sub> O	112-30-1	158.281	-39.85	-10.02	5.971	-6.116
77	1-Decene	C <sub>10</sub> H <sub>20</sub>	872-05-9	140.266	-12.21	12.27	5.433	-6.1809
78	Decyl mercaptan	C <sub>10</sub> H <sub>22</sub> S	143-10-2	174.347	-21.09	6.165	6.116	-6.6161
79	1-Decyne	C <sub>10</sub> H <sub>18</sub>	764-93-2	138.250	4.1	25.16	5.263	-6.1037
80	Deuterium	D <sub>2</sub>	7782-39-0	4.032	0	0	1.4486	-0.24625
81	1,1-Dibromoethane	C <sub>2</sub> H <sub>4</sub> Br <sub>2</sub>	557-91-5	187.861	-4.08	-1.181	3.276	-1.16
82	1,2-Dibromoethane	C <sub>2</sub> H <sub>4</sub> Br <sub>2</sub>	106-93-4	187.861	-3.89	-1.054	3.297	-1.1769
83	Dibromomethane	CH <sub>2</sub> Br <sub>2</sub>	74-95-3	173.835			2.92964	
84	Dibutyl ether	C <sub>8</sub> H <sub>18</sub> O	142-96-1	130.228	-33.34	-8.827	5.014	-4.94691
85	<i>m</i> -Dichlorobenzene	C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>	541-73-1	147.002	2.57	7.79	3.4353	-2.825
86	<i>o</i> -Dichlorobenzene	C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>	95-50-1	147.002	3.02	8.29	3.4185	-2.826
87	<i>p</i> -Dichlorobenzene	C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>	106-46-7	147.002	2.25	7.67	3.3674	-2.802
88	1,1-Dichloroethane	C <sub>2</sub> H <sub>4</sub> Cl <sub>2</sub>	75-34-3	98.959	-12.941	-7.259	3.0501	-1.1104
89	1,2-Dichloroethane	C <sub>2</sub> H <sub>4</sub> Cl <sub>2</sub>	107-06-2	98.959	-12.979	-7.3945	3.0828	-1.105
90	Dichloromethane	CH <sub>2</sub> Cl <sub>2</sub>	75-09-2	84.933	-9.552	-6.896	2.7018	-0.51388
91	1,1-Dichloropropane	C <sub>3</sub> H <sub>6</sub> Cl <sub>2</sub>	78-99-9	112.986	-15.08	-6.52	3.448	-1.72
92	1,2-Dichloropropane	C <sub>3</sub> H <sub>6</sub> Cl <sub>2</sub>	78-87-5	112.986	-16.28	-8.018	3.548	-1.707
93	Diethanol amine	C <sub>4</sub> H <sub>11</sub> NO <sub>2</sub>	111-42-2	105.136	-40.847	-22.574	4.29	-2.4105
94	Diethyl amine	C <sub>4</sub> H <sub>11</sub> N	109-89-7	73.137	-7.142	7.308	3.522	-2.8003
95	Diethyl ether	C <sub>4</sub> H <sub>10</sub> O	60-29-7	74.122	-25.21	-12.21	3.423	-2.5035
96	Diethyl sulfide	C <sub>4</sub> H <sub>10</sub> S	352-93-2	90.187	-8.356	1.774	3.681	-2.9607
97	1,1-Difluoroethane	C <sub>2</sub> H <sub>4</sub> F <sub>2</sub>	75-37-6	66.050	-49.7	-43.9485	2.824	-0.773662
98	1,2-Difluoroethane	C <sub>2</sub> H <sub>4</sub> F <sub>2</sub>	624-72-6	66.050	-44.77	-39.19	2.88194	-0.823
99	Difluoromethane	CH <sub>2</sub> F <sub>2</sub>	75-10-5	52.023	-45.23	-42.4747	2.4658	-0.183031
100	Di-isopropyl amine	C <sub>6</sub> H <sub>15</sub> N	108-18-9	101.190	-14.38	6.42	4.12	-3.99
101	Di-isopropyl ether	C <sub>6</sub> H <sub>14</sub> O	108-20-3	102.175	-31.92	-12.48	3.989	-3.70261
102	Di-isopropyl ketone	C <sub>7</sub> H <sub>14</sub> O	565-80-0	114.185	-31.14	-12.37	4.27	-4.095
103	1,1-Dimethoxyethane	C <sub>4</sub> H <sub>10</sub> O <sub>2</sub>	534-15-6	90.121	-38.97	-23.8	3.726	-2.394
104	1,2-Dimethoxypropane	C <sub>5</sub> H <sub>12</sub> O <sub>2</sub>	7778-85-0	104.148	-38.42	-20.11	4.038	-2.996
105	Dimethyl acetylene	C <sub>4</sub> H <sub>6</sub>	503-17-3	54.090	14.57	18.49	2.833	-2.4189
106	Dimethyl amine	C <sub>2</sub> H <sub>7</sub> N	124-40-3	45.084	-1.845	6.839	2.7296	-1.6146
107	2,3-Dimethylbutane	C <sub>6</sub> H <sub>14</sub>	79-29-8	86.175	-17.68	-0.3125	3.6592	-3.84761
108	1,1-Dimethylcyclohexane	C <sub>8</sub> H <sub>16</sub>	590-66-9	112.213	-18.1	3.52293	3.65012	-4.8639
109	<i>cis</i> -1,2-Dimethylcyclohexane	C <sub>8</sub> H <sub>16</sub>	2207-01-4	112.213	-17.2172	4.12124	3.7451	-4.87084
110	<i>trans</i> -1,2-Dimethylcyclohexane	C <sub>8</sub> H <sub>16</sub>	6876-23-9	112.213	-17.9996	3.44761	3.70912	-4.86436
111	Dimethyl disulfide	C <sub>2</sub> H <sub>6</sub> S <sub>2</sub>	624-92-0	94.199	-2.42	1.516	3.35291	-2.0441
112	Dimethyl ether	C <sub>2</sub> H <sub>6</sub> O	115-10-6	46.068	-18.41	-11.28	2.667	-1.3284
113	<i>N,N</i> -Dimethyl formamide	C <sub>3</sub> H <sub>7</sub> NO	68-12-2	73.094	-19.17	-8.84	3.26	-1.78871
114	2,3-Dimethylpentane	C <sub>7</sub> H <sub>16</sub>	565-59-3	100.202	-19.41	0.5717	4.1455	-4.46075
115	Dimethyl phthalate	C <sub>10</sub> H <sub>10</sub> O <sub>4</sub>	131-11-3	194.184	-60.5	-46.7749	6.6	-4.4662
116	Dimethylsilane	C <sub>2</sub> H <sub>6</sub> Si	1111-74-6	60.170	-9.47	-1.925	2.9953	-2.569

117	Dimethyl sulfide	C <sub>2</sub> H <sub>6</sub> S	75-18-3	62.134	-3.724	0.7302	2.8585	-1.7443
118	Dimethyl sulfoxide	C <sub>2</sub> H <sub>6</sub> OS	67-68-5	78.133	-15.046	-8.1441	3.0627	-1.6054
119	Dimethyl terephthalate	C <sub>10</sub> H <sub>10</sub> O <sub>4</sub>	120-61-6	194.184	-64.4	-47.4	5.5	-4.4115
120	1,4-Dioxane	C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	123-91-1	88.105	-31.58	-18.16	3.0012	-2.1863
121	Diphenyl ether	C <sub>12</sub> H <sub>10</sub> O	101-84-8	170.207	5.2	17.5	4.13	-5.8939
122	Dipropyl amine	C <sub>6</sub> H <sub>15</sub> N	142-84-7	101.190	-11.6	8.68	4.29	-4.0189
123	Dodecane	C <sub>12</sub> H <sub>26</sub>	112-40-3	170.335	-29.072	4.981	6.2415	-7.51368
124	Eicosane	C <sub>20</sub> H <sub>42</sub>	112-95-8	282.547	-45.646	11.57	9.3787	-12.3908
125	Ethane	C <sub>2</sub> H <sub>6</sub>	74-84-0	30.069	-8.382	-3.192	2.2912	-1.42864
126	Ethanol	C <sub>2</sub> H <sub>6</sub> O	64-17-5	46.068	-23.495	-16.785	2.8064	-1.235
127	Ethyl acetate	C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	141-78-6	88.105	-44.45	-32.8	3.597	-2.061
128	Ethyl amine	C <sub>2</sub> H <sub>7</sub> N	75-04-7	45.084	-4.715	3.616	2.848	-1.5874
129	Ethylbenzene	C <sub>8</sub> H <sub>10</sub>	100-41-4	106.165	2.992	13.073	3.6063	-4.3448
130	Ethyl benzoate	C <sub>9</sub> H <sub>10</sub> O <sub>2</sub>	93-89-0	150.175	-32.6	-19.05	4.55	-4.41
131	2-Ethyl butanoic acid	C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	88-09-5	116.158	-53.78	-35.9	4.23	-3.21203
132	Ethyl butyrate	C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	105-54-4	116.158	-48.55	-31.22	4.417	-3.284
133	Ethylcyclohexane	C <sub>8</sub> H <sub>16</sub>	1678-91-7	112.213	-17.15	3.955	3.826	-4.87051
134	Ethylcyclopentane	C <sub>7</sub> H <sub>14</sub>	1640-89-7	98.186	-12.69	4.48	3.783	-4.2839
135	Ethylene	C <sub>2</sub> H <sub>4</sub>	74-85-1	28.053	5.251	6.844	2.192	-1.323
136	Ethylenediamine	C <sub>2</sub> H <sub>8</sub> N <sub>2</sub>	107-15-3	60.098	-1.73	10.3	3.21833	-1.691
137	Ethylene glycol	C <sub>2</sub> H <sub>6</sub> O <sub>2</sub>	107-21-1	62.068	-39.22	-30.18	3.04891	-1.0527
138	Ethyleneimine	C <sub>2</sub> H <sub>5</sub> N	151-56-4	43.068	12.3428	17.7987	2.5062	-1.481
139	Ethylene oxide	C <sub>2</sub> H <sub>4</sub> O	75-21-8	44.053	-5.263	-1.323	2.4299	-1.218
140	Ethyl formate	C <sub>3</sub> H <sub>6</sub> O <sub>2</sub>	109-94-4	74.079	-38.83	-30.31	3.282	-1.50696
141	2-Ethyl hexanoic acid	C <sub>8</sub> H <sub>16</sub> O <sub>2</sub>	149-57-5	144.211	-55.95	-32.5	5.1	-4.448
142	Ethylhexyl ether	C <sub>8</sub> H <sub>18</sub> O	5756-43-4	130.228	-33.37	-9.042	5.076	-4.943
143	Ethylisopropyl ether	C <sub>5</sub> H <sub>12</sub> O	625-54-7	88.148	-28.58	-12.64	3.8	-3.103
144	Ethylisopropyl ketone	C <sub>6</sub> H <sub>12</sub> O	565-69-5	100.159	-28.61	-13.3	4.069	-3.4863
145	Ethyl mercaptan	C <sub>2</sub> H <sub>6</sub> S	75-08-1	62.134	-4.63	-0.4814	2.961	-1.7366
146	Ethyl propionate	C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	105-37-3	102.132	-46.36	-31.93	4.025	-2.674
147	Ethylpropyl ether	C <sub>5</sub> H <sub>12</sub> O	628-32-0	88.148	-27.22	-11.52	3.881	-3.12
148	Ethyltrichlorosilane	C <sub>2</sub> H <sub>5</sub> Cl <sub>3</sub> Si	115-21-9	163.506	-59.54	-51.01	4.07	-1.671
149	Fluorine	F <sub>2</sub>	7782-41-4	37.997	0	0	2.02682	
150	Fluorobenzene	C <sub>6</sub> H <sub>5</sub> F	462-06-6	96.102	-11.6566	-6.9036	3.02629	-2.81451
151	Fluoroethane	C <sub>2</sub> H <sub>5</sub> F	353-36-6	48.060	-26.44	-21.23	2.644	-1.127
152	Fluoromethane	CH <sub>3</sub> F	593-53-3	34.033	-23.43	-21.04	2.22734	-0.5219
153	Formaldehyde	CH <sub>2</sub> O	50-00-0	30.026	-10.86	-10.26	2.1866	-0.5268
154	Formamide	CH <sub>3</sub> NO	75-12-7	45.041	-19.22	-14.71	2.4857	-0.5021
155	Formic acid	CH <sub>2</sub> O <sub>2</sub>	64-18-6	46.026	-40.55	-37.78	2.487	-0.2115
156	Furan	C <sub>4</sub> H <sub>4</sub> O	110-00-9	68.074	-3.48	0.08225	2.6714	-1.9959
157	Helium-4	He	7440-59-7	4.003	0	0	1.26044	0
158	Heptadecane	C <sub>17</sub> H <sub>36</sub>	629-78-7	240.468	-39.445	9.083	8.2023	-10.5618
159	Heptanal	C <sub>7</sub> H <sub>14</sub> O	111-71-7	114.185	-26.94	-9.191	4.6138	-4.136
160	Heptane	C <sub>7</sub> H <sub>16</sub>	142-82-5	100.202	-18.765	0.8165	4.2798	-4.46473
161	Heptanoic acid	C <sub>7</sub> H <sub>14</sub> O <sub>2</sub>	111-14-8	130.185	-53.62	-33.4	4.8	-3.839
162	1-Heptanol	C <sub>7</sub> H <sub>16</sub> O	111-70-6	116.201	-33.68	-12.55	4.795	-4.285
163	2-Heptanol	C <sub>7</sub> H <sub>16</sub> O	543-49-7	116.201	-35.54	-14.25	4.74	-4.282
164	3-Heptanone	C <sub>7</sub> H <sub>14</sub> O	106-35-4	114.185	-30.1	-12.25	4.58	-4.098
165	2-Heptanone	C <sub>7</sub> H <sub>14</sub> O	110-43-0	114.185	-30.0453	-11.96	4.486	-4.09952
166	1-Heptene	C <sub>7</sub> H <sub>14</sub>	592-76-7	98.186	-6.289	9.482	4.252	-4.3499
167	Heptyl mercaptan	C <sub>7</sub> H <sub>16</sub> S	1639-09-4	132.267	-14.95	3.622	4.939	-4.7865
168	1-Heptyne	C <sub>7</sub> H <sub>12</sub>	628-71-7	96.170	10.3	22.7	4.085	-4.2717
169	Hexadecane	C <sub>16</sub> H <sub>34</sub>	544-76-3	226.441	-37.417	8.216	7.8102	-9.95145
170	Hexanal	C <sub>6</sub> H <sub>12</sub> O	66-25-1	100.159	-24.86	-10.005	4.2214	-3.52
171	Hexane	C <sub>6</sub> H <sub>14</sub>	110-54-3	86.175	-16.694	-0.006634	3.8874	-3.8551
172	Hexanoic acid	C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	142-62-1	116.158	-51.19	-33.8	4.41	-3.23
173	1-Hexanol	C <sub>6</sub> H <sub>14</sub> O	111-27-3	102.175	-31.62	-13.39	4.402	-3.675
174	2-Hexanol	C <sub>6</sub> H <sub>14</sub> O	626-93-7	102.175	-33.46	-15.06	4.349	-3.67
175	2-Hexanone	C <sub>6</sub> H <sub>12</sub> O	591-78-6	100.159	-27.9826	-13.0081	4.17856	-3.49
176	3-Hexanone	C <sub>6</sub> H <sub>12</sub> O	589-38-8	100.159	-27.76	-12.6	4.092	-3.492
177	1-Hexene	C <sub>6</sub> H <sub>12</sub>	592-41-6	84.159	-4.167	8.7	3.863	-3.7397
178	3-Hexyne	C <sub>6</sub> H <sub>10</sub>	928-49-4	82.144	10.6	19.9	3.76	-3.64
179	Hexyl mercaptan	C <sub>6</sub> H <sub>14</sub> S	111-31-9	118.240	-12.92	2.759	4.546	-4.1762

**TABLE 2-179 Enthalpies and Gibbs Energies of Formation, Entropies, and Net Enthalpies of Combustion of Inorganic and Organic Compounds at 298.15 K (Continued)**

Cmpd. no.	Name	Formula	CAS no.	Mol. wt.	Ideal gas enthalpy of formation, J/kmol × 1E-07	Ideal gas Gibbs energy of formation, J/kmol × 1E-07	Ideal gas entropy, J/(kmol·K) × 1E-05	Standard net enthalpy of combustion, J/kmol × 1E-09
180	1-Hexyne	C <sub>6</sub> H <sub>10</sub>	693-02-7	82.144	12.37	21.85	3.694	-3.661
181	2-Hexyne	C <sub>6</sub> H <sub>10</sub>	764-35-2	82.144	10.5	19.9	3.72	-3.64
182	Hydrazine	H <sub>4</sub> N <sub>2</sub>	302-01-2	32.045	9.5353	15.917	2.3861	-0.5342
183	Hydrogen	H <sub>2</sub>	1333-74-0	2.016	0	0	1.30571	-0.24182
184	Hydrogen bromide	HBr	10035-10-6	80.912	-3.629	-5.334	1.98591	-0.06904
185	Hydrogen chloride	HCl	7647-01-0	36.461	-9.231	-9.53	1.86786	-0.0286
186	Hydrogen cyanide	CHN	74-90-8	27.025	13.5143	12.4725	2.01719	-0.62329
187	Hydrogen fluoride	HF	7664-39-3	20.006	-27.33	-27.54	1.7367	0.1524
188	Hydrogen sulfide	H <sub>2</sub> S	7783-06-4	34.081	-2.063	-3.344	2.056	-0.518
189	Isobutyric acid	C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	79-31-2	88.105	-48.41	-36.21	3.412	-2.0004
190	Isopropyl amine	C <sub>3</sub> H <sub>9</sub> N	75-31-0	59.110	-8.38	3.192	3.124	-2.1566
191	Malonic acid	C <sub>3</sub> H <sub>4</sub> O <sub>4</sub>	141-82-2	104.061	-76.68	-67	3.7	-0.7732
192	Methacrylic acid	C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	79-41-4	86.089	-36.8	-28.8	3.5	-1.93
193	Methane	CH <sub>4</sub>	74-82-8	16.042	-7.452	-5.049	1.8627	-0.80262
194	Methanol	CH <sub>3</sub> O	67-56-1	32.042	-20.094	-16.232	2.3988	-0.6382
195	N-Methyl acetamide	C <sub>3</sub> H <sub>7</sub> NO	79-16-3	73.094	-24	-13.5	3.2	-1.71
196	Methyl acetate	C <sub>3</sub> H <sub>6</sub> O <sub>2</sub>	79-20-9	74.079	-41.19	-32.42	3.198	-1.461
197	Methyl acetylene	C <sub>3</sub> H <sub>4</sub>	74-99-7	40.064	18.49	19.384	2.4836	-1.8487
198	Methyl acrylate	C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	96-33-3	86.089	-33.3	-25.7	3.66	-1.9303
199	Methyl amine	CH <sub>3</sub> N	74-89-5	31.057	-2.297	3.207	2.433	-0.97508
200	Methyl benzoate	C <sub>8</sub> H <sub>8</sub> O <sub>2</sub>	93-58-3	136.148	-28.79	-18.1	4.14	-3.772
201	3-Methyl-1,2-butadiene	C <sub>5</sub> H <sub>8</sub>	598-25-4	68.117	12.908	19.75	3.2151	-3.032
202	2-Methylbutane	C <sub>5</sub> H <sub>12</sub>	78-78-4	72.149	-15.37	-1.405	3.4374	-3.23954
203	2-Methylbutanoic acid	C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	116-53-0	102.132	-49.8	-34.99	3.9	-2.622
204	3-Methyl-1-butanol	C <sub>5</sub> H <sub>12</sub> O	123-51-3	88.148	-30.3	-14.1	3.869	-3.062
205	2-Methyl-1-butene	C <sub>5</sub> H <sub>10</sub>	563-46-2	70.133	-3.53	6.668	3.395	-3.1159
206	2-Methyl-2-butene	C <sub>5</sub> H <sub>10</sub>	513-35-9	70.133	-4.18	6.045	3.386	-3.1088
207	2-Methyl -1-butene-3-yne	C <sub>5</sub> H <sub>8</sub>	78-80-8	66.101	26	30.25	2.78	-2.93
208	Methylbutyl ether	C <sub>6</sub> H <sub>12</sub> O	628-28-4	88.148	-25.81	-10.17	3.901	-3.12818
209	Methylbutyl sulfide	C <sub>5</sub> H <sub>12</sub> S	628-29-5	104.214	-10.2	2.691	4.118	-3.5723
210	3-Methyl-1-butene	C <sub>5</sub> H <sub>8</sub>	598-23-2	68.117	13.8	20.72	3.189	-3.046
211	Methyl butyrate	C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	623-42-7	102.132	-45.07	-30.53	3.988	-2.686
212	Methylchlorosilane	CH <sub>3</sub> ClSi	993-00-0	80.589	-21.5	-16.61	2.98277	-1.693
213	Methylcyclohexane	C <sub>7</sub> H <sub>14</sub>	108-87-2	98.186	-15.48	2.733	3.433	-4.25714
214	1-Methylcyclohexanol	C <sub>7</sub> H <sub>14</sub> O	590-67-0	114.185	-33.2	-12.9	3.75	-4.058
215	cis-2-Methylcyclohexanol	C <sub>7</sub> H <sub>14</sub> O	7443-70-1	114.185	-32.7	-12.68	3.853	-4.0574
216	trans-2-Methylcyclohexanol	C <sub>7</sub> H <sub>14</sub> O	7443-52-9	114.185	-35.26	-15.24	3.853	-4.0318
217	Methylcyclopentane	C <sub>6</sub> H <sub>12</sub>	96-37-7	84.159	-10.62	3.63	3.399	-3.6741
218	1-Methylcyclopentene	C <sub>6</sub> H <sub>10</sub>	693-89-0	82.144	-0.38	10.38	3.264	-3.534
219	3-Methylcyclopentene	C <sub>6</sub> H <sub>10</sub>	1120-62-3	82.144	0.74	11.38	3.305	-3.5464
220	Methyldichlorosilane	CH <sub>2</sub> Cl <sub>2</sub> Si	75-54-7	115.034	-40.2	-34.83	3.287	-1.357
221	Methylethyl ether	C <sub>3</sub> H <sub>8</sub> O	540-67-0	60.095	-21.64	-11.71	3.0881	-1.9314
222	Methylethyl ketone	C <sub>4</sub> H <sub>8</sub> O	78-93-3	72.106	-23.9	-14.7	3.394	-2.268
223	Methylethyl sulfide	C <sub>3</sub> H <sub>8</sub> S	624-89-5	76.161	-5.96	1.147	3.332	-2.354
224	Methyl formate	C <sub>2</sub> H <sub>4</sub> O <sub>2</sub>	107-31-3	60.052	-35.24	-29.5	2.852	-0.8924
225	Methylisobutyl ether	C <sub>5</sub> H <sub>12</sub> O	625-44-5	88.148	-26.6	-10.7	3.81	-3.122
226	Methylisobutyl ketone	C <sub>6</sub> H <sub>12</sub> O	108-10-1	100.159	-28.64	-13.51	4.129	-3.4762
227	Methyl Isocyanate	C <sub>2</sub> H <sub>3</sub> NO	624-83-9	57.051	-6.24	0.0244	1.955	-1.06
228	Methylisopropyl ether	C <sub>4</sub> H <sub>10</sub> O	598-53-8	74.122	-25.2	-12.18	3.416	-2.5311
229	Methylisopropyl ketone	C <sub>5</sub> H <sub>10</sub> O	563-80-4	86.132	-26.26	-13.93	3.699	-2.877
230	Methylisopropyl sulfide	C <sub>4</sub> H <sub>10</sub> S	1551-21-9	90.187	-8.96	1.4509	3.59	-2.957
231	Methyl mercaptan	CH <sub>4</sub> S	74-93-1	48.107	-2.29	-0.98	2.55	-1.1517
232	Methyl methacrylate	C <sub>5</sub> H <sub>8</sub> O <sub>2</sub>	80-62-6	100.116	-36	-25.4	4.01	-2.54
233	2-Methyloctanoic acid	C <sub>9</sub> H <sub>18</sub> O <sub>2</sub>	3004-93-1	158.238	-57.95	-31.8	5.533	-5.056
234	2-Methylpentane	C <sub>6</sub> H <sub>14</sub>	107-83-5	86.175	-17.455	-0.5338	3.8089	-3.84915
235	Methyl pentyl ether	C <sub>6</sub> H <sub>14</sub> O	628-80-8	102.175	-27.8	-9.35	4.32	-3.739
236	2-Methylpropane	C <sub>4</sub> H <sub>10</sub>	75-28-5	58.122	-13.499	-2.144	2.955	-2.64895
237	2-Methyl-2-propanol	C <sub>4</sub> H <sub>10</sub> O	75-65-0	74.122	-31.24	-17.76	3.263	-2.4239

238	2-Methyl propene	C <sub>4</sub> H <sub>8</sub>	115-11-7	56.106	-1.71	5.808	2.9309	-2.5242
239	Methyl propionate	C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	554-12-1	88.105	-42.75	-31.1	3.596	-2.078
240	Methylpropyl ether	C <sub>4</sub> H <sub>10</sub> O	557-17-5	74.122	-23.82	-11.1	3.52	-2.51739
241	Methylpropyl sulfide	C <sub>4</sub> H <sub>10</sub> S	3877-15-4	90.187	-8.23	1.793	3.717	-2.962
242	Methylsilane	CH <sub>3</sub> Si	992-94-9	46.144	-2.91	1.853	2.565	-1.999
243	alpha-Methyl styrene	C <sub>9</sub> H <sub>10</sub>	98-83-9	118.176	11.83	21.73	3.725	-4.8214
244	Methyl <i>tert</i> -butyl ether	C <sub>5</sub> H <sub>12</sub> O	1634-04-4	88.148	-28.32	-11.7	3.578	-3.105
245	Methyl vinyl ether	C <sub>3</sub> H <sub>6</sub> O	107-25-5	58.079	-10.8	-4.73	3.08	-1.77431
246	Naphthalene	C <sub>10</sub> H <sub>8</sub>	91-20-3	128.171	15.058	22.408	3.3315	-4.9809
247	Neon	Ne	7440-01-9	20.180	0	0	1.46219	0
248	Nitroethane	C <sub>2</sub> H <sub>5</sub> NO <sub>2</sub>	79-24-3	75.067	-10.21	-0.6125	3.168	-1.25
249	Nitrogen	N <sub>2</sub>	7727-37-9	28.013	0	0	1.915	
250	Nitrogen trifluoride	F <sub>3</sub> N	7783-54-2	71.002	-13.2089	-9.06	2.6062	
251	Nitromethane	CH <sub>3</sub> NO <sub>2</sub>	75-52-5	61.040	-7.47	-0.6934	2.751	-0.6432
252	Nitrous oxide	N <sub>2</sub> O	10024-97-2	44.013	8.205	10.416	2.1985	-0.0820482
253	Nitric oxide	NO	10102-43-9	30.006	9.025	8.657	2.106	-0.0902489
254	Nonadecane	C <sub>19</sub> H <sub>40</sub>	629-92-5	268.521	-43.579	10.74	8.9866	-11.7812
255	Nonanal	C <sub>9</sub> H <sub>18</sub> O	124-19-6	142.239	-31.09	-7.553	5.3988	-5.35
256	Nonane	C <sub>9</sub> H <sub>20</sub>	111-84-2	128.255	-22.874	2.498	5.064	-5.68455
257	Nonanoic acid	C <sub>9</sub> H <sub>18</sub> O <sub>2</sub>	112-05-0	158.238	-57.73	-31.7	5.59	-5.061
258	1-Nonanol	C <sub>9</sub> H <sub>20</sub> O	143-08-8	144.255	-37.79	-10.86	5.579	-5.506
259	2-Nonanol	C <sub>9</sub> H <sub>20</sub> O	628-99-9	144.255	-39.71	-12.61	5.523	-5.506
260	1-Nonene	C <sub>9</sub> H <sub>18</sub>	124-11-8	126.239	-10.35	11.23	5.041	-5.5716
261	Nonyl mercaptan	C <sub>9</sub> H <sub>20</sub> S	1455-21-6	160.320	-19.08	5.28	5.724	-6.006
262	1-Nonyne	C <sub>9</sub> H <sub>16</sub>	3452-09-3	124.223	6.17	24.34	4.8699	-5.493
263	Octadecane	C <sub>18</sub> H <sub>38</sub>	593-45-3	254.494	-41.512	9.91	8.5945	-11.1715
264	Octanal	C <sub>8</sub> H <sub>16</sub> O	124-13-0	128.212	-29.02	-8.377	5.0063	-4.74
265	Octane	C <sub>8</sub> H <sub>18</sub>	111-65-9	114.229	-20.875	1.6	4.6723	-5.07415
266	Octanoic acid	C <sub>8</sub> H <sub>16</sub> O <sub>2</sub>	124-07-2	144.211	-55.6	-32.5	5.2	-4.448
267	1-Octanol	C <sub>8</sub> H <sub>18</sub> O	111-87-5	130.228	-35.73	-11.7	5.187	-4.895
268	2-Octanol	C <sub>8</sub> H <sub>18</sub> O	123-96-6	130.228	-37.62	-13.43	5.132	-4.894
269	2-Octanone	C <sub>8</sub> H <sub>16</sub> O	111-13-7	128.212	-32.16	-11.38	4.962	-4.6984
270	3-Octanone	C <sub>8</sub> H <sub>16</sub> O	106-68-3	128.212	-33.9	-12.81	4.879	-4.711
271	1-Octene	C <sub>8</sub> H <sub>16</sub>	111-66-0	112.213	-8.194	10.57	4.637	-4.961
272	Octyl mercaptan	C <sub>8</sub> H <sub>18</sub> S	111-88-6	146.294	-17.01	4.457	5.331	-5.3962
273	1-Octyne	C <sub>8</sub> H <sub>14</sub>	629-05-0	110.197	8.23	23.5	4.478	-4.88145
274	Oxalic acid	C <sub>2</sub> H <sub>2</sub> O <sub>4</sub>	144-62-7	90.035	-72.37	-66.14	3.433	-0.1989
275	Oxygen	O <sub>2</sub>	7782-44-7	31.999	0	0	2.05043	0
276	Ozone	O <sub>3</sub>	10028-15-6	47.998	14.2671	16.3164	2.38823	-0.142671
277	Pentadecane	C <sub>15</sub> H <sub>32</sub>	629-62-9	212.415	-35.311	7.426	7.4181	-9.34237
278	Pentanal	C <sub>5</sub> H <sub>10</sub> O	110-62-3	86.132	-22.78	-10.71	3.8289	-2.91
279	Pentane	C <sub>5</sub> H <sub>12</sub>	109-66-0	72.149	-14.676	-0.8813	3.4945	-3.24494
280	Pentanoic acid	C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	109-52-4	102.132	-49.13	-34.7	4.02	-2.617
281	1-Pentanol	C <sub>5</sub> H <sub>12</sub> O	71-41-0	88.148	-29.57	-14.23	4.01	-3.064
282	2-Pentanol	C <sub>5</sub> H <sub>12</sub> O	6032-29-7	88.148	-31.37	-15.88	3.958	-3.058
283	2-Pentanone	C <sub>5</sub> H <sub>10</sub> O	107-87-9	86.132	-25.92	-13.83	3.786	-2.87956
284	3-Pentanone	C <sub>5</sub> H <sub>10</sub> O	96-22-0	86.132	-25.79	-13.44	3.7	-2.8804
285	1-Pentene	C <sub>5</sub> H <sub>10</sub>	109-67-1	70.133	-2.162	7.837	3.462	-3.13037
286	2-Pentyl mercaptan	C <sub>5</sub> H <sub>12</sub> S	2084-19-7	104.214	-11.3	1.814	4.05	-3.564
287	Pentyl mercaptan	C <sub>5</sub> H <sub>12</sub> S	110-66-7	104.214	-10.84	1.94408	4.154	-3.5641
288	1-Pentyne	C <sub>5</sub> H <sub>8</sub>	627-19-0	68.117	14.44	21.03	3.298	-3.051
289	2-Pentyne	C <sub>5</sub> H <sub>8</sub>	627-21-4	68.117	12.89	19.45	3.3084	-3.0291
290	Phenanthrene	C <sub>14</sub> H <sub>10</sub>	85-01-8	178.229	20.12	30.219	3.945	-6.8282
291	Phenol	C <sub>6</sub> H <sub>6</sub> O	108-95-2	94.111	-9.6399	-3.2637	3.1481	-2.921
292	Phenyl isocyanate	C <sub>7</sub> H <sub>5</sub> NO	103-71-9	119.121	-1.454	4.87212	3.527	-3.298
293	Phthalic anhydride	C <sub>8</sub> H <sub>4</sub> O <sub>3</sub>	85-44-9	148.116	-37.14	-30.7001	3.995	-3.1715
294	Propadiene	C <sub>3</sub> H <sub>4</sub>	463-49-0	40.064	19.05	20.08	2.439	-1.8563
295	Propane	C <sub>3</sub> H <sub>8</sub>	74-98-6	44.096	-10.468	-2.439	2.702	-2.04311
296	1-Propanol	C <sub>3</sub> H <sub>8</sub> O	71-23-8	60.095	-25.46	-15.99	3.226	-1.844
297	2-Propanol	C <sub>3</sub> H <sub>8</sub> O	67-63-0	60.095	-27.21	-17.52	3.175	-1.834
298	Propenylcyclohexene	C <sub>9</sub> H <sub>14</sub>	13511-13-2	122.207	4.677	20.85	4.233	-5.232
299	Propionaldehyde	C <sub>3</sub> H <sub>6</sub> O	123-38-6	58.079	-18.63	-12.46	3.044	-1.6857
300	Propionic acid	C <sub>3</sub> H <sub>6</sub> O <sub>2</sub>	79-09-4	74.079	-47.99	-38.5	2.949	-1.395

**TABLE 2-179 Enthalpies and Gibbs Energies of Formation, Entropies, and Net Enthalpies of Combustion of Inorganic and Organic Compounds at 298.15 K (Concluded)**

Cmpd. no.	Name	Formula	CAS no.	Mol. wt.	Ideal gas enthalpy of formation, J/kmol × 1E-07	Ideal gas Gibbs energy of formation, J/kmol × 1E-07	Ideal gas entropy, J/(kmol·K) × 1E-05	Standard net enthalpy of combustion, J/kmol × 1E-09
301	Propionitrile	C <sub>3</sub> H <sub>5</sub> N	107-12-0	55.079	5.18	9.74949	2.8614	-1.8007
302	Propyl acetate	C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	109-60-4	102.132	-46.48	-32.04	4.023	-2.672
303	Propyl amine	C <sub>3</sub> H <sub>7</sub> N	107-10-8	59.110	-7.05	4.17	3.242	-2.165
304	Propylbenzene	C <sub>9</sub> H <sub>12</sub>	103-65-1	120.192	0.79	13.76	4.0014	-4.95415
305	Propylene	C <sub>3</sub> H <sub>6</sub>	115-07-1	42.080	2.023	6.264	2.67	-1.9262
306	Propyl formate	C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	110-74-7	88.105	-40.76	-29.36	3.678	-2.041
307	2-Propyl mercaptan	C <sub>3</sub> H <sub>6</sub> S	75-33-2	76.161	-7.59	-0.218	3.243	-2.3398
308	Propyl mercaptan	C <sub>3</sub> H <sub>8</sub> S	107-03-9	76.161	-6.75	0.2583	3.365	-2.3458
309	1,2-Propylene glycol	C <sub>3</sub> H <sub>8</sub> O <sub>2</sub>	57-55-6	76.094	-42.15	-30.4	3.52	-1.6476
310	Quinone	C <sub>6</sub> H <sub>4</sub> O <sub>2</sub>	106-51-4	108.095	-12.29	-6.92	3.205	-2.658
311	Silicon tetrafluoride	F <sub>4</sub> Si	7783-61-1	104.079	-161.494	-157.27	2.82651	0.7055
312	Styrene	C <sub>8</sub> H <sub>8</sub>	100-42-5	104.149	14.74	21.39	3.451	-4.219
313	Succinic acid	C <sub>4</sub> H <sub>6</sub> O <sub>4</sub>	110-15-6	118.088	-82.29	-69.73	4.034	-1.3591
314	Sulfur dioxide	O <sub>2</sub> S	7446-09-5	64.064	-29.684	-30.012	2.481	
315	Sulfur hexafluoride	F <sub>6</sub> S	2551-62-4	146.055	-122.047	-111.653	2.91625	0.924
316	Sulfur trioxide	O <sub>3</sub> S	7446-11-9	80.063	-39.572	-37.095	2.5651	0.1422
317	Terephthalic acid	C <sub>8</sub> H <sub>6</sub> O <sub>4</sub>	100-21-0	166.131	-71.79	-59.9	4.48	-3.0576
318	<i>o</i> -Terphenyl	C <sub>18</sub> H <sub>14</sub>	84-15-1	230.304	27.66	42.3	5.263	-9.053
319	Tetradecane	C <sub>14</sub> H <sub>30</sub>	629-59-4	198.388	-33.244	6.599	7.0259	-8.73282
320	Tetrahydrofuran	C <sub>4</sub> H <sub>8</sub> O	109-99-9	72.106	-18.418	-7.969	2.9729	-2.325
321	1,2,3,4-Tetrahydronaphthalene	C <sub>10</sub> H <sub>12</sub>	119-64-2	132.202	2.661	16.71	3.6964	-5.3575
322	Tetrahydrothiophene	C <sub>4</sub> H <sub>6</sub> S	110-01-0	88.171	-3.376	4.59	3.1	-2.76549
323	2,2,3,3-Tetramethylbutane	C <sub>8</sub> H <sub>18</sub>	594-82-1	114.229	-22.56	2.239	3.893	-5.0639
324	Thiophene	C <sub>4</sub> H <sub>4</sub> S	110-02-1	84.140	11.544	12.67	2.784	-2.4352
325	Toluene	C <sub>7</sub> H <sub>8</sub>	108-88-3	92.138	5.017	12.22	3.2099	-3.734
326	1,1,2-Trichloroethane	C <sub>2</sub> H <sub>2</sub> Cl <sub>3</sub>	79-00-5	133.404	-14.2	-8.097	3.371	-0.9685
327	Tridecane	C <sub>13</sub> H <sub>28</sub>	629-50-5	184.361	-31.177	5.771	6.6337	-8.1229
328	Triethyl amine	C <sub>6</sub> H <sub>15</sub> N	121-44-8	101.190	-9.58	11.41	4.054	-4.0405
329	Trimethyl amine	C <sub>3</sub> H <sub>9</sub> N	75-50-3	59.110	-2.431	9.899	2.87	-2.2449
330	1,2,3-Trimethylbenzene	C <sub>9</sub> H <sub>12</sub>	526-73-8	120.192	-0.95	12.61	3.805	-4.934
331	1,2,4-Trimethylbenzene	C <sub>9</sub> H <sub>12</sub>	95-63-6	120.192	-1.38	11.71	3.961	-4.9307
332	2,2,4-Trimethylpentane	C <sub>8</sub> H <sub>18</sub>	540-84-1	114.229	-22.401	1.394	4.2296	-5.06528
333	2,3,3-Trimethylpentane	C <sub>8</sub> H <sub>18</sub>	560-21-4	114.229	-21.845	1.828	4.2702	-5.06876
334	1,3,5-Trinitrobenzene	C <sub>6</sub> H <sub>3</sub> N <sub>3</sub> O <sub>6</sub>	99-35-4	213.105	6.24	26.79	4.435	-2.6867
335	2,4,6-Trinitrotoluene	C <sub>7</sub> H <sub>5</sub> N <sub>3</sub> O <sub>6</sub>	118-96-7	227.131	4.34	28.44	4.607	-3.2959
336	Undecane	C <sub>11</sub> H <sub>24</sub>	1120-21-4	156.308	-27.043	4.116	5.8493	-6.9036
337	1-Undecanol	C <sub>11</sub> H <sub>24</sub> O	112-42-5	172.308	-41.9	-9.177	6.363	-6.726
338	Vinyl acetate	C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	108-05-4	86.089	-31.49	-22.79	3.28	-1.95
339	Vinyl acetylene	C <sub>4</sub> H <sub>4</sub>	689-97-4	52.075	30.46	30.6	2.794	-2.362
340	Vinyl chloride	C <sub>2</sub> H <sub>3</sub> Cl	75-01-4	62.498	2.845	4.195	2.7354	-1.178
341	Vinyl trichlorosilane	C <sub>2</sub> H <sub>3</sub> Cl <sub>3</sub> Si	75-94-5	161.490	-48.116	-42.5514	3.73966	-1.544
342	Water	H <sub>2</sub> O	7732-18-5	18.015	-24.1814	-22.859	1.88724	
343	<i>m</i> -Xylene	C <sub>8</sub> H <sub>10</sub>	108-38-3	106.165	1.732	11.876	3.5854	-4.3318
344	<i>o</i> -Xylene	C <sub>8</sub> H <sub>10</sub>	95-47-6	106.165	1.908	12.2	3.5383	-4.333
345	<i>p</i> -Xylene	C <sub>8</sub> H <sub>10</sub>	106-42-3	106.165	1.803	12.14	3.52165	-4.333

The compounds are considered to be formed from the elements in their standard states at 298.15 K and 101,325 Pa. These include C (graphite) and S (rhombic). Enthalpy of combustion is the net value for the compound in its standard state at 298.15 K and 101,325 Pa. Products of combustion are taken to be CO<sub>2</sub> (gas), H<sub>2</sub>O (gas), Cl<sub>2</sub> (gas), Br<sub>2</sub> (gas), I<sub>2</sub> (gas), SO<sub>2</sub> (gas), N<sub>2</sub> (gas), P<sub>4</sub>O<sub>10</sub> (crystalline), SiO<sub>2</sub> (cristobalite), and Al<sub>2</sub>O<sub>3</sub> (crystal, alpha).

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