NALL (HS) GasTable

Rec #	Gas	Symbol	GCF	Derived	Density (g/L) 25° C / 1 atm
1	Acetic Acid	C2H4F2	0.4164	4	2.7
2	Acetic Anhydride	C4H6O3	0.2586	4	4.173
3	Acetone	C3H6O	0.3564	4	2.374
4	Acetonitryl	C2H3N	0.5186	4	1.678
5	Acetylene	C2H2	0.6262	4	1.064
6	Air	Air	0.9971	1	1.185
7	Allene	C3H4	0.4522	4	1.638
8	Ammonia	NH3	0.781	2	0.696
9	Argon	Ar	1.4119	1	1.633
10	Arsine	AsH3	0.7592	5	3.186
11	Benzene	C6H6	0.3067	4	3.193
12	Boron Trichloride	BCl3	0.4426	4	4.789
13	Boron Triflouride	BF3	0.5438	4	2.772
14	Bromine	Br2	0.8009	4	6.532
15	Bromochlorodifluoromethane	CBrClF2	0.3688	4	6.759
16	Bromodifluoromethane	CHBrF2	0.4651	4	5.351
17	Bromotrifluormethane	CBrF3	0.3948	4	6.087
18	Butane	C4H10	0.2628	2	2.376
19	Butanol	C4H10O	0.2412	4	3.03
20	Butene	C4H8	0.3063	4	2.293
21	Carbon Dioxide	CO2	0.6933	1	1.799
22	Carbon Disulfide	CS2	0.6165	4	3.112
23	Carbon Monoxide	CO	1.0013	4	1.145
24	Carbon Tetrachloride	CCl4	0.3336	4	6.287
25	Carbonyl Sulfide	COS	0.6686	4	2.456
26	Chlorine	Cl2	0.8454	4	2.898
27	Chlorine Trifluoride	ClF3	0.4496	5	3.779
28	Chlorobenzene	C6H5Cl	0.262	4	4.601
29	Chlorodifluoroethane	C2H3ClF2	0.3222	4	4.108
30	Chloroform	CHCl3	0.4197	4	4.879
31	Chloropentafluoroethane	C2ClF5	0.244	4	6.314
32	Chloropropane	C3H7Cl	0.3087	4	3.21
33	Cisbutene	C4H8	0.301	4	2.293
34	Cyanogen	C2N2	0.4927	4	2.127
35	Cyanogen Chloride	ClCN	0.6486	5	2.513
36	Cyclobutane	C4H8	0.3573	4	2.293
37	Cyclopropane	C3H6	0.4575	4	1.72
38	Deuterium	H22	1.0003	4	0.165

39	Diborane	B2H6	0.5063	5	1.131
40	Dibromodifluoromethane	CBr2F2	0.3594	4	8.576
41	Dichlorofluoromethane	CHCl2F	0.4487	4	4.207
42	Dichloromethane	CH2Cl2	0.532	4	3.472
43	Dichloropropane	C3H6Cl2	0.2703	4	4.618
44	Dichlorosilane	H2SiCl2	0.4716	5	4.129
45	Diethyl Amine	C4H11N	0.2261	4	2.989
46	Diethyl Ether	C4H10O	0.2239	4	3.03
47	Diethyl Sulfide	C4H10S	0.226	4	3.686
48	Difluoroethylene	C2H2F2	0.4501	4	2.617
49	Dimethylamine	C2H7N	0.3713	4	1.843
50	Dimethyl Ether	C2H6O	0.4095	4	1.883
51	Dimethyl Sulfide	C2H6S	0.3629	4	2.54
52	Divinyl	C4H6	0.3256	4	2.211
53	Ethane	C2H6	0.4268	2	1.229
54	Ethane, 1-chloro-1,1,2,2-tetrafluoro-	C2HClF4	0.2689	4	5.578
55	Ethane, 1-chloro-1,2,2,2-tetrafluoro-	C2HClF4	0.2723	4	5.578
56	Ethanol	C2H6O	0.4055	4	1.883
57	Ethylacetylene	C4H6	0.3263	4	2.211
58	Ethyl Amine	C2H7N	0.3702	4	1.843
59	Ethylbenzene	C8H10	0.2007	4	4.339
60	Ethyl Bromide	C2H5Br	0.4132	4	4.454
61	Ethyl Chloride	C2H5Cl	0.422	4	2.637
62	Ethyl Fluoride	C2H5F	0.4439	4	1.964
63	Ethylene	C2H4	0.523	1	1.147
64	Ethylene Dibromide	C2H4Br2	0.3178	4	7.679
65	Ethylene Dichloride	C2H4Cl2	0.3481	4	4.045
66	Ethylene Oxide	C2H4O	0.5322	4	1.801
67	Ethyleneimine	C2H4N	0.4804	4	1.719
68	Ethylidene Dichloride	C2H4Cl2	0.3512	4	4.045
69	Ethyl Mercaptan	C2H6S	0.366	4	2.54
70	Fluorine	F2	0.9119	4	1.553
71	Formaldehyde	CH2O	0.7921	4	1.227
72	Freon 11	CCl3F	0.3539	4	5.615
73	Freon 12	CCl2F2	0.3716	4	4.942
74	Freon 13	CClF3	0.3796	4	4.27
75	Freon 14	CF4	0.443	4	3.597
76	Freon 22	CHClF2	0.4865	4	3.534
77	Freon 23	CHF3	0.5291	4	2.862
78	Freon 114	C2Cl2F4	0.233	4	6.986
79	Furan	C4H4O	0.3901	4	2.783
80	Helium	He	1.382	1	0.164
81	Heptafluoropropane	C3HF7	0.199	4	6.95
82	Hexamethyldisilazane	C6H19NSi2	0.1224	4	6.597
83	Hexamethyldisiloxane	C6H18OSi2	0.1224	4	6.637
84	Hexane	C6H14	0.1832	4	3.522
85	Hexafluorobenzene	C6F6	0.1736	4	7.605

86	Hexene	C6H12	0.1922	4	3.44
87	Hydrazine	N2H4	0.5515	4	1.31
88	Hydrogen	H2	1.0091	1	0.082
89	Hydrogen Bromide	HBr	1.0028	4	3.307
90	Hydrogen Chloride	HCl	1.0034	4	1.49
91	Hydrogen Cyanide	CHN	0.7778	4	1.105
92	Hydrogen Fluoride	HF	1.0039	4	0.818
93	Hydrogen Iodide	HI	0.9997	4	5.228
94	Hydrogen Selenide	H2Se	0.8412	5	3.309
95	Hydrogen Sulfide	H2S	0.8423	4	1.393
96	Isobutane	C4H10	0.273	2	2.376
97	Isobutanol	C4H10O	0.2397	4	3.03
98	Isobutene	C4H8	0.299	4	2.293
99	Isopentane	C5H12	0.2181	4	2.949
100	Isopropyl Alcohol	C3H8O	0.2938	4	2.456
101	Isoxazole	C3H3NO	0.4345	4	2.823
102	Ketene	C2H2O	0.5743	4	1.718
103	Krypton	Kr	1.4042	4	3.425
104	Methane	CH4	0.6919	1	0.656
105	Methanol	CH4O	0.6176	4	1.31
106	Methyl Acetate	C3H6O2	0.309	4	3.028
107	Methyl Acetylene	C3H4	0.4437	4	1.638
108	Methylamine	CH5N	0.537	4	1.269
109	Methyl Bromide	CH3Br	0.6368	4	3.881
110	Methyl Chloride	CH3Cl	0.6649	4	2.064
111	Methylcyclohexane	C7H14	0.1859	4	4.013
112	Methyl Ethyl Amine	C3H9N	0.2698	4	2.416
113	Methyl Ethyl Ether	C3H8O	0.2849	4	2.456
114	Methyl Ethyl Sulfide	C3H8S	0.2749	4	3.113
115	Methyl Fluoride	CH3F	0.7258	4	1.391
116	Methyl Formate	C2H4O2	0.3983	4	2.455
117	Methyl Iodide	CH3I	0.6522	4	5.802
118	Methyl Mercaptan	CH4S	0.5417	4	1.966
119	Methylpentene	C6H12	0.2042	4	3.44
120	Methyl Vinyl Ether	C3H6O	0.3442	4	2.374
121	Neon	Ne	1.4043	4	0.825
122	Nitric Oxide	NO	0.9795	4	1.226
123	Nitrogen	N2	1	1	1.145
124	Nitrogen Dioxide	NO2	0.761	4	1.88
125	Nitrogen Tetroxide	N2O4	0.3399	4	3.761
126	Nitrogen Trifluoride	NF3	0.5406	5	2.902
127	Nitromethane	CH3NO2	0.4662	4	2.495
128	Nitrosyl Chloride	NOCl	0.636	4	2.676
129	Nitrous Oxide	N2O	0.722	1	1.799
130	n-Pentane	C5H12	0.2126	4	2.949
131	Octane	C8H18	0.1389	4	4.669
132	Oxygen	O2	0.9614	1	1.308

133	Oxygen Difluoride	F2O	0.646	4	2.207
134	Ozone	O3	0.7029	4	1.962
135	Pentaborane	B5H9	0.1499	5	2.58
136	Pentane	C5H12	0.218	4	2.949
137	Perchloryl Fluoride	ClFO3	0.4162	4	4.188
138	Perfluorocyclobutane	C4F8	0.1714	4	8.176
139	Perfluoroethane	C2F6	0.2534	4	5.641
140	Perfluoropropane	C3F8	0.182	4	7.685
141	Phenol	C6H6O	0.2496	4	3.847
142	Phosgene	COCl2	0.4817	4	4.043
143	Phosphine	PH3	0.7859	5	1.39
144	Phosphorus Trifluoride	PF3	0.4972	5	3.596
145	Propane	C3H8	0.2939	1	1.802
146	Propyl Alcohol	C3H8O	0.3067	4	2.456
147	Propyl Amine	C3H9N	0.2867	4	2.416
148	Propylene	C3H6	0.4048	2	1.72
149	Pyridine	C5H5N	0.3232	4	3.233
150	R32	CH2F2	0.6207	2	2.126
151	R123	C2HCl2F3	0.2586	2	6.251
152	R123A	C2HCl2F3	0.2702	4	6.251
153	R125	C2HF5	0.2831	2	4.906
154	R134	C2H2F4	0.3001	4	4.17
155	R134a	C2H2F4	0.3115	2	4.17
156	R143	C2H3F3	0.3457	4	3.435
157	R143A	C2H3F3	0.3401	4	3.435
158	R152A	C2H4F2	0.3885	4	2.7
159	R218	C3F8	0.182	4	7.685
160	R1416	C2H3Cl2F	0.3052	4	4.78
161	Radon	Rn	1.4042	5	9.074
162	Sec-butanol	C4H10O	0.2331	4	3.03
163	Silane	SiH4	0.6809	5	1.313
164	Silicone Tetrafluoride	SiF4	0.3896	5	4.254
165	Sulfur Dioxide	SO2	0.6881	4	2.619
166	Sulfur Hexafluoride	SF6	0.2502	1	5.97
167	Sulfur Tetrafluoride	SF4	0.3758	4	4.417
168	Sulfur Trifluoride	SF3	0.0437	4	3.64
169	Sulfur Trioxide	SO3	0.5404	4	3.273
170	Tetrachloroethylene	C2Cl4	0.2929	4	6.778
171	Tetrafluoroethylene	C2F4	0.34	4	4.088
172	Tetrahydrofuran	C4H8O	0.3282	4	2.947
173	Tert-butanol	C4H10O	0.2303	4	3.03
174	Thiophene	C4H4S	0.3547	4	2.783
175	Toluene	C7H8	0.2455	4	3.766
176	Transbutene	C4H8	0.2061	4	2.293
177	Trichloroethane	C2H3Cl3	0.3138	4	5.453
178	Trichloroethylene	C2HCl4	0.3427	4	6.82
179	Trichlorotrifluoroethane	C2Cl3F3	0.2256	4	7.659

180	Triethylamine	C6H15N	0.1623	4	4.136
181	Trimethyl Amine	C3H9N	0.2829	4	2.416
182	Tungsten Hexafluoride	WF6	0.2453	5	12.174
183	Uranium Hexafluoride	UF6	0.1859	4	14.389
184	Vinyl Bromide	C2H3Br	0.4776	4	4.372
185	Vinyl Chloride	C2H3Cl	0.4966	4	2.555
186	Vinyl Flouride	C2H3F	0.5716	5	1.882
187	Water Vapor	H2O	0.7992	5	0.742
188	Xenon	Xe	1.4042	4	5.366
189	Xylene, m-	C8H10	0.2041	4	4.339
190	Xylene, o-	C8H10	0.1958	4	4.339
191	Xylene, p-	C8H10	0.2033	4	4.339
192	Other	????		???	
193					
194					

Density (g/L) 0° C / 1 atm	Synonyms	Gamma (Cp/Cv)25
2.947	Ethanoic Acid	1.2
4.555	Aceticanhydride	1.2
2.591	2-propanone	1.2
1.832	Methyl Cyanide	1.2
1.162	Ethyne	1.23
1.293		1.4
1.787	Propadiene	1.2
0.76		1.32
1.782		1.66
3.478		1.2
3.485		1.2
5.228		1.2
3.025		1.2
7.13		1.4
7.378		1.2
5.841		1.2
6.644		1.2
2.593		1.09
3.307	1-Butanol, Butyl Alcohol	1.2
2.503	1-Butene, 1-Butylene	1.2
1.964		1.22
3.397		1.2
1.25		1.4
6.863	Tetrachloromethane	1.2
2.68	Carbon Oxysulfide	1.2
3.163		1.4
4.125		1.2
5.022		1.2
4.484	Ethane, 2-chloro-1,1-difluoro-	1.2
5.326	Trichloromethane	1.2
6.892		1.2
3.504	Propylchloride	1.2
2.503	Cis-2-butene	1.2
2.322		1.2
2.743		1.2
2.503	Tetramethylene	1.2
1.877	Trimethylene	1.2
0.18	D2	1.4

1.235		1.2
9.361		1.2
4.592	R21	1.2
3.789	Methylene Chloride	1.2
5.041	1,2-dichloropropane,	1.2
4.506		1.2
3.263		1.2
3.307	1,1-oxybisethane	1.2
4.024	3-thiapentane, UN-2375	1.2
2.857	Vinylidenefluoride, G-1132A, Difluoroethene	1.2
2.011	N-methylmethanamine	1.2
2.055	Methylether; Methane, Oxybis-	1.2
2.772	2-thiopropane, Thiobismethane	1.2
2.413	1,3-butadiene	1.2
1.342		1.19
6.089	Chlorotetrafluoroethane, F124, R124, Monochlorotetrafluoroethane	1.2
6.089	Chlorotetrafluoroethane	1.2
2.055	Ethyl Alcohol	1.2
2.413	1-butyne	1.2
2.011	Ethanamine	1.2
4.737	1-butyne	1.2
4.862		1.2
2.878	Chloroethane	1.2
2.144	Fluoroethane, R-161	1.2
1.252	Ethene	1.21
8.382	1,2-dibromoethane	1.2
4.415	1,2-dichloroethane	1.2
1.965	Acetaldehide	1.2
1.877	Aziridine	1.2
4.415	1,1-dichloroethane	1.2
2.772	Ethanethiol	1.2
1.695		1.4
1.34		1.2
6.129	Trichloro,fluoromethane	1.2
5.395	Dichloro,difluoromethane	1.2
4.661	Chloro, trifluoromethane	1.2
3.926	Carb. Tetrafluoride, Meth.Tetrafluoride	1.2
3.858	Chloro, difluoromethane	1.2
3.124	Trifluoromethane, Fluoroform	1.2
7.626	1,2-dichloro, 1,1,,2,2-tetrafluoroethane	1.2
3.037	Oxacylopentadiene	1.2
0.179		1.66
7.586	Freon 227, R-227ea	1.2
7.201	HMDS	1.2
7.245		1.2
3.845		1.2
8.301	Perfluorobenzene	1.2

3.755	1-Hexene	1.2
1.43		1.2
0.09		1.38
3.61		1.38
1.627		1.4
1.206	Hydrocyanic Acid	1.2
0.893		1.4
5.707		1.4
3.612		1.2
1.521		1.2
2.593	2-Methylpropane	1.2
3.307	2-methyl-1-propanol, Isobutyl Alcohol	1.2
2.503	Isobutylene, Methylpropene	1.2
3.219	2-methylbutane	1.2
2.681	2- propanol	1.2
3.081	1-Oxa-2-azacyclopentadiene	1.2
1.875		1.2
3.739		1.6
0.716		1.31
1.43	Methyl Alcohol	1.2
3.305	Methyl Ethanoate	1.2
1.787	Propyne	1.2
1.386	Methanamine	1.2
4.236		1.2
2.253	Chloromethane	1.2
4.381		1.2
2.637	2-propanamine	1.2
2.681	Methoxyethane	1.2
3.398	2-thiabutane, Methylthioethane	1.2
1.518	Fluoromethane	1.2
2.679		1.2
6.333		1.2
2.146	Methanethiol	1.2
3.755		1.2
2.591		1.2
0.9		1.6
1.339	Niutrogen Monoxide	1.4
1.25		1.4
2.053		1.2
4.105		1.2
3.168		1.2
2.723		1.2
2.92		1.2
1.964		1.2
3.219	Dimethylpropane	1.2
5.096		1.2
1.428		1.48

2.409		1.2
2.141		1.2
2.816		1.2
3.219		1.2
4.571		1.2
8.924	Octafluorocyclobutane	1.2
6.158	R116, Hexafluoroethane	1.2
8.389		1.2
4.199	Hydroxybenzene	1.2
4.413	Carbonyl Chloride	1.2
1.517		1.2
3.925		1.2
1.967		1.13
2.681	1- propanol	1.2
2.637	1-propanamine	1.2
1.877	Propene	1.2
3.529	Azine, Azabenzene	1.2
2.321	Difluoromethane, Methylene Fluoride	1.2
6.823	2,2-Dichloro-1,1,1-trifluoroethane	1.2
6.823	1,2-Dichloro-1,2,2-trifluoroethane	1.2
5.355	Pentafluoroethane	1.2
4.552	1,1,2,2-tetrafluoroethane	1.2
4.552	1,1,1,2-tetrafluoroethane	1.2
3.75	1,1,2-trifluoroethane	1.2
3.75	1,1,1-trifluoroethane, Methylfluoroform	1.2
2.947	1,1-Difluoroethane	1.2
8.389	Octafluoropropane	1.2
5.218	1,1-Dichloro-1-fluoroethane,	1.2
9.905		1.2
3.307	2-butanol, Sec-butyl Alcohol	1.2
1.433		1.2
4.644	Tetrafluorosilane	1.2
2.858		1.2
6.516		1.2
4.821		1.2
3.974		1.2
3.572		1.2
7.399		1.2
4.462	Tetrafluoroethene	1.2
3.217		1.2
3.307	2-methyl-2-propanol, Tertiary Butyl Alcohol	1.2
3.037	Thiofuran	1.2
4.111	Methylbutene	1.2
2.503	2-butene	1.2
5.952		1.2
7.444		1.2
8.36	R113, 1,1,2-trichloro-1,2,2-trifluoroethane	1.2

4.515	UN 1296, n,n-diethylethanamine	1.2
2.637	n,n-dimethylmethanamine	1.2
13.288		1.2
15.706	Uranium Fluoride	1.2
4.772		1.2
2.788	Chloroethylene	1.2
2.054		1.2
0.81		1.33
5.858		1.6
4.737		1.2
4.737		1.2
4.737		1.2
		1.4

R J/gm*K
125.88
81.44
143.16
202.54
319.33
287
207.53
488.21
208.13
106.67
106.44
70.96
122.62
52.03
50.28
63.509
55.84
143.05
112.17
148.19
188.93
109.2
296.84
54.05
138.4
117.26
89.94
73.87
82.74
69.65
53.83
105.86
148.19
159.79
135.26
148.19
197.59
2062.13

300.49
39.63
80.78
97.9
73.59
82.32
113.68
112.17
92.19
129.85
184.42
180.48
133.81
153.71
276.51
60.92
60.92
180.48
153.71
184.42
78.32
75.6
128.88
173
296.38
44.26
84.02
188.74
197.71
84.02
133.81
218.82
276.91
60.53
68.76
79.6
94.48
96.16
118.76
48.65
122.139
2077.28
48.9
51.52
51.2
96.48
44.69

98.79
259.46
4124.51
102.76
228.04
307.66
415.59
65
102.68
243.96
143.05
112.17
148.19
115.24
138.356
120.39
197.79
99.22
518.28
259.49
112.24
207.53
267.72
87.58
164.77
84.681
140.661
138.356
109.169
244.31
188.74
58.58
172.83
98.79
143.16
412.02
277.09
259.84
180.73
90.36
117.1
136.21
127.02
188.91
115.24
72.788
259.84

153.983
173.23
131.71
115.24
81.16
41.57
60.24
44.22
88.348
84.06
244.56
94.52
188.56
138.356
140.661
197.59
105.114
153.91
54.37
54.37
66.5
78.42
78.42
95.52
95.52
122.18
44.22
71.095
37.45
112.17
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79.89
129.78
56.93
76.94
93.36
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83.13
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112.17
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90.24
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62.33
63.28
44.374

82.167
140.661
27.92
23.62
77.74
133.04
180.58
461.53
63.33
78.32
78.32
78.32
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