GAS PROPERTIES

Gas Name	MW	n	Crit Temp °R	Crit Press psia	Crit Temp °K	Crit Press Bar-a
ACETONE Dimethyl Ketone (CH3)2CO	58.08		915	682	508	47.0
AIR	28.96	1.40	238	547	132	37.7
ALLENE (PROPADIENE CH2:C:CH2)	40.10	1.17	708	792	393	54.6
AMMONIA (NH3)	17.03	1.31	730	1,636	406	112.8
ARGON	39.94	1.67	272	705	151	48.6
BENZENE (C6H6)	78.11	1.12	1,012	710	562	49.0
BORON TRICHLORIDE	117.00	1.15	814	561	452	38.7
BORON TRIFLUORIDE	68.00	1.20	470	723	261	49.9
BROMOTRIFLUOROETHYLENE (BFE)	161.00	1.10	825	650	458	44.8
BROMOTRIFLUORMETHANE (HALON 1301)	149.00	1.14	612	575	340	39.7
1 3-BUTADIENE (C4H6)	54.09	1.12	765	628	425	43.3
N-BUTANE (C4H10)	58.12	1.09	765	551	425	38.0
1-BUTENE (BUTYLENE C4H8)	56.11	1.11	756	583	420	40.2
CIS-2-BUTENE (C4H8)	56.11	1.10	784	610	436	42.1
TRANS-2-BUTENE (C4H8)	56.11	1.12	771	595	428	41.0
CARBON DIOXIDE (CO2)	44.01	1.32	548	1,071	304	73.9
CARBON DISULFIDE (CS2)	76.14	1.22	994	1,146	552	79.0
CARBON MONOXIDE (CO)	28.01	1.40	240	507	133	35.0
CARBON TETRACHLORIDE (CCl4)	153.84	1.13	1,002	661	557	45.6
CARBON TETRAFLUORIDE	88.00	1.16	410	542	228	37.4
CARBONYL SULFIDE	60.00	1.24	675	852	375	58.8
CHLORINE	70.91	1.31	751	1,118	417	77.1
CHLORODIFLUOROMETHANE (R-22)	86.48	1.17	665	722	369	49.8
CHLOROFORM (CHCl3)	119.39	1.15	966	794	537	54.8
CHLOROTRIFLUOROETHYLENE (C2ClF3)	116.47	1.14	682	589	379	40.6
CHLOROTRIFLUOROMETHANE (R-13)	104.47	1.14	544	561	302	38.7
CYANOGEN	52.00	1.17	720	867	400	59.8
CYANOGEN CHLORIDE	61.00	1.21	808	869	449	59.9
CYCLOHEXANE (C6H12)	84.16	1.09	997	591	554	40.8
DEUTERIUM	4.00	1.40	70	242	39	16.7
DIBORANE	28.00	1.18	522	580	290	40.0
DIBROMODIFLUOROMETHANE (R-12B2)	209.00	1.12	849	773	472	53.3
DICHLORODIFLUOROMETHANE (R-12)	120.92	1.14	693	598	385	41.2
DICHLOROFLUOROMETHANE (R-21)	102.93	1.15	813	750	452	51.7
1 2 DichloroTetraFluoroEthane (R114)	170.94	1.08	754	473	419	32.6
1 1 DIFLUORO 1 CHLOROETHANE (R142B)	100.00	1.11	738	598	410	41.2
DIMETHYLAMINE (DMA)	45.09	1.15	788	770	438	53.1
DIMETHYLETHER	46.07	1.11	720	764	400	52.7
DIMETHYL SULFIDE (C2H6S)	62.14	1.13	906	802	503	55.3
2 2 DIMETHYLPROPANE	72.00	1.08	781	464	434	32.0
ETHANE (C2H6)	30.07	1.19	550	713	306	49.2
ETHYL ALCOHOL (ETHANOL C2H5OH)	46.07	1.15	925	890	514	61.4
ETHYL CHLORIDE (C2H5Cl)	64.50	1.19	829	764	461	52.7
ETHYLACETYLENE	54.00	1.12	835	705	464	48.6
ETHYLENE (C2H4) (ETHENE)	28.05	1.24	510	742	283	51.2
ETHYLENE OXIDE (C2H4O)	44.05	1.20	844	1,043	469	71.9
FLUORINE	38.00	1.36	261	756	145	52.1
HELIUM (He)	4.00	1.63	10	33	6	2.3
HFA 227 (CF3-CHF-CH3) (Heptafluourpropane)	170.03	1.06	675	425	375	29.3
N-HEPTANE (CH3(CH2)5CH3)	100.20	1.05	972	397	540	27.4

Gas Name	MW	n	Crit Temp °R	Crit Press psia	Crit Temp °K	Crit Press Bar-a
N-HEXANE (C6H14)	86.18	1.06	914	439	508	30.3
HYDROGEN (H2)	2.02	1.41	60	188	33	13.0
HYDROGEN BROMIDE	80.00	1.42	654	1,234	363	85.1
HYDROGEN CHLORIDE (HCl)	36.46	1.41	584	1,198	324	82.6
HYDROGEN CYANIDE	27.00	1.31	822	782	457	53.9
HYDROGEN FLUORIDE	20.00	1.40	830	941	461	64.9
HYDROGEN IODINE	128.00	1.40	763	1,191	424	82.1
HYDROGEN SULFIDE (H2S)	34.08	1.33	672	1,306	373	90.1
ISOBUTANE (C4H10)	58.12	1.10	735	529	408	36.5
ISOBUTENE (C4H8)	56.11	1.10	753	580	418	40.0
ISOBUTYLENE	56.10	1.12	752	579	418	39.9
ISOPENTANE (C5H12)	72.15	1.08	829	490	461	33.8
KRYPTON	83.70	1.67	378	798	210	55.0
MAPP (80% Methyl Acetylene, 20% Propadiene)	40.00	1.08	722	810	401	55.9
MERCAPTON, ETHYL (C2H6S)	62.14	1.13	899	796	499	54.9
MERCAPTON, METHYL (CH4S)	48.11	1.20	846	1,049	470	72.3
METHANE (CH4)	16.04	1.31	345	673	192	46.4
METHANOL (METHYL ALCOHOL, MEOH)	32.04	1.24	923	1,174	513	81.0
METHYL ACETYLENE (CH3C:CH)	40.00	1.06	725	814	403	56.1
METHYL ACETYLENE PROPADIENE (MAPP)	40.00	1.08	722	810	401	55.9
METHYL BROMIDE	95.00	1.23	841	757	467	52.2
3 METHYL 1 BUTENE	70.10	1.08	816	526	453	36.3
METHYL CHLORIDE	50.49	1.28	750	969	417	66.8
METHYL ETHYL KETONE	72.10	1.05				
METHYL FLUORIDE	34.00	1.28	572	911	318	62.8
METHYL MERCAPTAN	48.00	1.20	846	1,049	470	72.3
MONOMETHYLAMINE (METHYLAMINE) (MMA)	31.00	1.20	774	1,082	430	74.6
METHYLENE CHLORIDE (CH2Cl2) (Dichloromethane, Methylene Dichloride)	84.94	1.18	919	895	511	61.7
NEON	20.18	1.64	80	395	44	27.2
NITRIC OXIDE	30.00	1.40	325	950	181	65.5
NITROGEN	28.01	1.40	228	493	127	34.0
NITROGEN DIOXIDE (NO2)	46.00	1.28	777	1,470	432	101.4
NITROUS OXIDE (N2O)	44.02	1.30	558	1,052	310	72.6
OCTOFLUORCYLCOBUTANE (R-318)	200.04	1.06	699	404	388	27.9
OXYGEN (O2)	32.00	1.41	279	731	155	50.4
OZONE (O3)	48.00	1.31	470	803	261	55.4
n-OCTANE	114.23	1.04	1,024	361	569	24.9
n-PENTANE	72.15	1.08	846	489	470	33.7
PERCHLORYL FLORIDE	102.00	1.12	663	779	368	53.7
PROPANE (C3H8)	44.10	1.14	666	619	370	42.7
PROPYLENE (PROPENE) (C3H6)	42.08	1.15	657	670	365	46.2
R11 (MF) (CCl3F)	137.38	1.14	848	635	471	43.8
R12 (CCl2F2)	120.92	1.14	693	598	385	41.2
R13 (CClF3)	104.47	1.15	544	561	302	38.7
R14 (CF4)	88.01	1.16	410	543	228	37.4
R21 (CHCl2F)	102.93	1.18	813	750	452	51.7
R22 (CHClF2)	86.48	1.18	665	722	369	49.8
R23 (CHF3)	70.02	1.19	539	701	299	48.3
R32 (CH2F2)	52.00	1.25	633	845	352	58.3
R113 (TF) (CCl2F-CClF2)	187.39	1.08	877	495	487	34.1
R114 (CClF2-CClF2)	170.94	1.08	755	473	419	32.6
R115 (CClF2-CF3)	154.48	1.09	636	453	353	31.2

Gas Name		MW	n	Crit Temp °R	Crit Press psia	Crit Temp °K	Crit Press Bar-a
R123	(CHCl2-CF3)	152.90	1.08	825	550	458	37.9
R124	(CHClF-CF3)	136.50	1.10	712	518	396	35.7
R125	(CHF2-CCF3)	120.02	1.11	611	510	339	35.2
R134a	(CH2F-CF3)	102.00	1.12	673	572	374	39.4
R141b	(CH3-CCl2F)	116.95	1.10	870	673	483	46.4
R142B	(CH3-CClF2)	100.47	1.11	738	598	410	41.2
R143a	(CH3-CF3)	84.00	1.13	623	550	346	37.9
R152A	(CH3-CHF2)	66.00	1.12	696	653	387	45.0
R318		200.04	1.06	699	404	388	27.9
R404A (R125/R134A/R143A 44/4/52 wt))		98.00	1.12	621	537	345	37.0
R407C (R32/R125/R134A 23/25/52 wt)		86.20	1.13	648	670	360	46.2
R410A (R32/R125 50/50 wt)		72.58	1.16	622	715	346	49.3
R500	(R12/R152a 73.8/26.2 wt.)	99.30	1.14	682	642	379	44.3
R502	(R22/R115 48.8/51.2 wt.)	111.64	1.13	654	618	363	42.6
R503	(40% R23 60% R13 by wt.)	87.28	1.17	527	632	293	43.6
R507	(R125/R143a 50/50 wt.)	98.90	1.12	620	550	344	37.9
R12B1 (HALON 1211)	(CClBrF2)	165.40	1.12	769	595	427	41.0
R12B2	(CBr2F2)	209.83	1.12	849	773	472	53.3
R13B1 (HALON 1301)	(CBrF3)	148.93	1.18	612	575	340	39.7
STEAM	(WATER VAPOR)	18.02	1.33	1,165	3,199	647	220.6
SULFUR DIOXIDE	(SO2)	64.06	1.29	776	1,143	431	78.8
SULFUR HEXAFLUORIDE	(SF6)	146.10	1.09	574	545	319	37.6
TETRAFLUORETHYLENE	(C2F4)	100.00	1.14	552	572	307	39.4
TOLUENE	(C7H8)	92.14	1.09	1,066	596	592	41.1
TRIMETHYLAMINE	(TMA)	59.10	1.18	780	591	433	40.8
VINYL BROMIDE		107.00	1.18	835	995	464	68.6
VINYL CHLORIDE	(CH2:CHCl)	62.50	1.18	765	835	425	57.6
VINYL FLUORIDE		46.00	1.18	590	760	328	52.4
WATER VAPOR	(STEAM)	18.02	1.33	1,165	3,199	647	220.6
XENON		131.30	1.67	522	847	290	58.4