W1.7

Sp. Gravities of Gases at NTP

Sr No	Gas	Formula	Mol. Wt	sp.gr. kg/nm3	sp. Vol nm3/kg
1	Air			1.29	0.775
2	Ammonia	NH_3	17.03	0.76	1.315
3	Butane	C_4H_{10}	58.08	2.6	0.385
4	Carbon dioxide	$C0_2$	44	1.96	0.509
5	Carbon monoxide	CO	28	1.25	0.800
6	Chlorine	Cl_2	70.91	3.17	0.316
7	Ethane	C_2H_6	30.05	1.34	0.745
8	Fluorine	F_2	38	1.70	0.59
9	Helium	He	4	0.18	5.556
10	Hydrogen	H_2	2.02	0.09	11.09
11	Methane	CH_4	16.03	0.72	1.306
12	Nitric oxide	NO	30.01	1.34	0.746
13	Nitrogen	N_2	28.02	1.25	0.800
14	Nitrous oxide	N_2O	44.02	1.98	0.505
15	Oxygen	O_2	32	1.43	0.699
16	Sulphur dioxide	SO_2	64.06	2.86	0.35
17	Steam	H_2O	18	0.804	1.244

Molecular volume of all gases at NTP (0 ^{o}c and 760 mmhg) is 22.4 litres
Sp. Gravity = molecular wt./mol. Vol
Sp. Vol. = mol.vol / mol. Wt

	Mol. wt	Sp. gr	Sp. vol
Oxygen	32	1.43	0.7
CO_2	44	1.96	0.509

compiled

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final
rs 14 checked 24/9/06