

Physical Properties of Gases

Gas	Symbol	Molecular Weight	Density (Kg/m ³)	Specific Gravity
Acetylene	C ₂ H ₂	26.0	1.11	0.91
Air		29.0	1.29	1.0
Allene	C ₃ H ₄	40.1	1.81	1.4
Ammonia	NH ₃	17.0	0.73	0.60
Argon	Ar	39.9	1.69	1.38
Arsine	AsH ₃	78.0	*	*
Boron Trichloride	BCl ₃	117.2	4.98	4.06
Boron Trifluoride	BF ₃	67.8	2.90	2.37
N – Butane	C ₄ H ₁₀	58.1	2.59	2.11
Carbon Dioxide	CO ₂	44.0	1.87	1.53
Carbon Monoxide	CO	28.0	1.18	0.97
Chlorine	Cl ₂	70.9	3.05	2.49
Deuterium	D ₂ or 2H ₂	4.03	0.17	0.14
Dichlorosilane	SiH ₂ Cl ₂	101.0	*	*
Dimethylamine	(CH ₃) ₂ NH	45.1	1.91	1.56
Dimethylether	(CH ₃) ₂ O	46.1	2.00	1.63
Ethane	C ₂ H ₆	30.1	1.29	1.05
Ethyl Acetylene	C ₄ H ₆	54.1	*	*
Ethyl Chloride	C ₂ H ₅ Cl	64.5	2.73	2.23
Ethylene	C ₂ H ₄	28.1	1.20	0.97
Ethylene Oxide	C ₂ H ₄ O	44.1	1.86	1.52
Fluorine	F ₂	38.0	1.61	1.31
Germane	GeH ₄	76.6	*	*
Helium	He	4.0	0.17	0.14
Hydrogen	H ₂	2.0	0.09	0.07

Gas	Symbol	Molecular Weight	Density (kg/m ³)	Specific Gravity
Hydrogen Bromide	HBr	90.9	3.45	2.82
Hydrogen Chloride	HCl	36.5	1.56	1.27
Hydrogen Fluoride	HF	20.0	0.87	0.71
Hydrogen Sulphide	H ₂ S	34.1	1.46	1.19
Krypton	Kr	83.8	3.55	2.90
Methane	CH ₄	16.0	0.68	0.55
Natural Gas	*	19.5	0.8034	0.67
Neon	Ne	20.2	0.85	0.70
Nitric Oxide	N ₂ O	30.0	1.27	1.04
Nitrogen	N ₂	28.0	1.18	0.97
Nitrogen Dioxide	NO ₂	46.0	3.47	2.83
Nitrogen Trifluoride	NF ₃	71.0	3.00	2.44
Nitrous Oxide	N ₂ O	44.0	1.88	1.53
Oxygen	O ₂	32.0	1.35	1.11
Phosgene	COCl ₂	98.9	4.30	3.50
Propane	C ₃ H ₈	44.1	1.91	1.55
Propylene	C ₃ H ₆	43.1	1.82	1.48
Silane	SiH ₄	32.1	1.36	1.11
Silicon Tetrafluoride	SiF ₄	104.1	4.45	3.63
Sulphur Dioxide	SO ₂	64.1	2.77	2.26
Trimethylamine	(CH ₃) ₃ N	59.1	2.45	1.995
Xenon	Xe	131.3	5.59	4.56