

**GAS****SOLID PHASE***Triple point\****LIQUID PHASE**

Name	Chemical Formula	Molecular Weight	Temperature K	Pressure kPa	Latent Heat of Fusion kJ kg <sup>-1</sup>	Density at 98 kPa kg m <sup>-3</sup>	Volume of Gas Obtained from 1 dm <sup>3</sup> of Liquid m <sup>3</sup>	Boiling Point at 101.3 kPa K	Latent Heat of Evap. at 101.3 kPa kJ kg <sup>-1</sup>
Acetylene	C <sub>2</sub> H <sub>2</sub>	26.038	192.600	128.200	96.46	420.0	0.567	189.350	817.97
Air	-	28.960	-	1.400	-	870.0	0.740	78.800	204.15
Ammonia	NH <sub>3</sub>	17.310	195.410	6.077	331.59	682.0	0.966	239.740	1371.17
Argon	Ar	39.944	83.780	68.700	29.43	1396.0	0.853	87.290	160.80
Carbon dioxide	CO <sub>2</sub>	44.011	216.580	518.500	195.65	1180.0*	0.650	194.250	348.30
<b>Helium</b>	<b>He</b>	<b>4.003</b>	-	<b>5.100</b>	<b>3.52</b>	<b>125.0</b>	<b>0.759</b>	<b>4.220</b>	<b>20.42</b>
Hydrogen	H <sub>2</sub>	2.016	13.947	7.200	58.23	71.0	0.859	20.384	454.26
Nitrogen	N <sub>2</sub>	28.013	63.148	12.530	25.75	809.0	0.705	77.347	198.70
Oxygen	O <sub>2</sub>	31.998	54.351	0.152	13.90	1142.0	0.872	90.180	212.97

**CRITICAL POINT****GASEOUS PHASE**

Name	Temperature K	Pressure MPa	Density at 288°K and 98 kPa kg m <sup>-3</sup>	Specific Heat at 288°K and 101.3 kPa kJ kg <sup>-1</sup> K <sup>-1</sup>	c <sub>w</sub> /c <sub>v</sub>	Thermal Conductivity (standard conditions) W m <sup>-1</sup> K <sup>-1</sup>	Viscosity (standard conditions) 10 <sup>-7</sup> P	Solubility in H <sub>2</sub> O (Bunsen's coeff. at 293°K and P gas = 101.3 kPa)
Acetylene	308.33	6.1910	1.078	1.688	-	0.0180	948	1.0470
Air	132.50	3.7700	1.186	1.005	1.402	0.0240	1719	0.0183
Ammonia	405.55	11.4800	0.707	2.090	1.318	0.0220	923	0.7340
Argon	150.86	4.8980	1.636	0.520	1.669	0.0160	2117	0.0340
Carbon dioxide	304.21	7.3825	1.814	0.820	1.303	0.0150	1380	0.8704
<b>Helium</b>	<b>5.20</b>	<b>0.2275</b>	<b>0.163</b>	<b>5.196</b>	<b>1.668</b>	<b>0.1430</b>	<b>1865</b>	<b>0.0086</b>
Hydrogen	33.24	1.2980	0.082	14.320	1.408	0.1710	845	0.0178
Nitrogen	126.20	3.3990	1.147	1.038	1.403	0.0240	1656	0.01557
Oxygen	154.57	5.0430	1.311	0.913	1.398	0.0240	1919	0.0310