

**GAS****SOLID PHASE****LIQUID PHASE**

Name	Chemical Formula	Molecular Weight	<i>Triple point*</i>			Density at 98 kPa	Volume of Gas Obtained from 1 dm <sup>3</sup> of Liquid	Boiling Point at 101.3 kPa	Latent Heat of Evap. at 101.3 kPa
			Temperature <b>K</b>	Pressure <b>kPa</b>	Latent Heat of Fusion <b>kJ kg<sup>-1</sup></b>				
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
<b>Argon</b>	<b>Ar</b>	<b>39.944</b>	<b>83.780</b>	<b>68.700</b>	<b>29.43</b>	<b>1396.0</b>	<b>0.853</b>	<b>87.290</b>	<b>160.80</b>
Carbon dioxide	CO <sub>2</sub>	44.011	216.580	518.500	195.65	1180.0*	0.650	194.250	348.30
Helium	He	4.003	-	5.100	3.52	125.0	0.759	4.220	20.42
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	Pressure	Density at 288°K and 98 kPa	Specific Heat at 288°K and 101.3 kPa	c <sub>w</sub> /c <sub>v</sub>	Thermal Conductivity (standard conditions)	Viscosity (standard conditions)	Solubility in H <sub>2</sub> O (Bunsen's coeff. at 293°K and P <sub>gas</sub> = 101.3 kPa)
			<b>kg m<sup>-3</sup></b>	<b>kJ kg<sup>-1</sup> K<sup>-1</sup></b>				
	<b>K</b>	<b>MPa</b>				<b>W m<sup>-1</sup> K<sup>-1</sup></b>	<b>10<sup>-7</sup> P</b>	
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
<b>Argon</b>	<b>150.86</b>	<b>4.8980</b>	<b>1.636</b>	<b>0.520</b>	<b>1.669</b>	<b>0.0160</b>	<b>2117</b>	<b>0.0340</b>
Carbon dioxide	304.21	7.3825	1.814	0.820	1.303	0.0150	1380	0.8704
Helium	5.20	0.2275	0.163	5.196	1.668	0.1430	1865	0.0086
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