

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

| Name | Chemical Formula | Molecular Weight | Temperature K | Pressure kPa | Latent Heat of Fusion kJ kg⁻¹ | Density at 98 kPa kg m⁻³ | Volume of Gas Obtained from 1 dm ³ of Liquid m³ | Boiling Point at 101.3 kPa K | Latent Heat of Evap. at 101.3 kPa kJ kg⁻¹ |
|----------------|-------------------------------|------------------|-------------------------|------------------------|--|---|---|--|--|
| Acetylene | C ₂ H ₂ | 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 ₃ | 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 ₂ | 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 ₂ | 2.016 | 13.947 | 7.200 | 58.23 | 71.0 | 0.859 | 20.384 | 454.26 |
| Nitrogen | N ₂ | 28.013 | 63.148 | 12.530 | 25.75 | 809.0 | 0.705 | 77.347 | 198.70 |
| Oxygen | O₂ | 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⁻³ | Specific Heat at 288°K and 101.3 kPa kJ kg⁻¹ K⁻¹ | c _w /c _v | Thermal Conductivity (standard conditions) W m⁻¹ K⁻¹ | Viscosity (standard conditions) 10⁻⁷ P | Solubility in H ₂ 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 |
| 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 |