# «alpha»-D-Glucopyranose

| | |
|---|---|
| **Other names:** | alpha-D-Glucose |
| | «alpha»-D-Glucose |
| **Inchi:** | InChI=1S/C6H12O6/c7-1-2-3(8)4(9)5(10)6(11)12-2/h2-11H,1H2/t2-,3-,4+,5-,6+/m0/s1 |
| **InchiKey:** | WQZGKKKJIJFFOK-MDMQIMBFSA-N |
| **Formula:** | C6H12O6 |
| **SMILES:** | OCC1OC(O)C(O)C(O)C1O |
| **Mol. weight [g/mol]:** | 180.16 |
| **CAS:** | 26655-34-5 |

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| basg | 778.90 | kJ/mol | NIST Webbook |
| chs | -2803.30 ± 0.42 | kJ/mol | NIST Webbook |
| chs | -2799.80 ± 2.30 | kJ/mol | NIST Webbook |
| chs | -2801.50 | kJ/mol | NIST Webbook |
| gf | -776.97 | kJ/mol | Joback Method |
| hf | -1087.36 | kJ/mol | Joback Method |
| hfs | -1274.50 | kJ/mol | NIST Webbook |
| hfus | 35.83 | kJ/mol | Joback Method |
| hvap | 116.05 | kJ/mol | Joback Method |
| log10ws | 1.31 | | Crippen Method |
| logp | -3.221 | | Crippen Method |
| mcvol | 119.760 | ml/mol | McGowan Method |
| pc | 6200.01 | kPa | Joback Method |
| tb | 825.40 | K | Joback Method |
| tc | 1011.14 | K | Joback Method |
| tf | 478.47 | K | Joback Method |
| vc | 0.416 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 418.13 | J/mol×K | 825.40 | Joback Method |
| cpg | 425.76 | J/mol×K | 856.36 | Joback Method |

| | | | | |
|---|---|---|---|---|
| cpg | 432.81 | J/mol×K | 887.31 | Joback Method |
| cpg | 439.26 | J/mol×K | 918.27 | Joback Method |
| cpg | 445.12 | J/mol×K | 949.22 | Joback Method |
| cpg | 450.39 | J/mol×K | 980.18 | Joback Method |
| cpg | 455.08 | J/mol×K | 1011.14 | Joback Method |
| dvisc | 0.0004404 | Pa×s | 478.47 | Joback Method |
| dvisc | 0.0000602 | Pa×s | 536.29 | Joback Method |
| dvisc | 0.0000121 | Pa×s | 594.11 | Joback Method |
| dvisc | 0.0000032 | Pa×s | 651.93 | Joback Method |
| dvisc | 0.0000011 | Pa×s | 709.76 | Joback Method |
| dvisc | 0.0000004 | Pa×s | 767.58 | Joback Method |
| dvisc | 0.0000002 | Pa×s | 825.40 | Joback Method |

# Sources

| | |
|---|---|
| **Joback Method:** | https://en.wikipedia.org/wiki/Joback_method |
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=C26655345&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |

# Legend

| | |
|---|---|
| **basg:** | Gas basicity |
| **chs:** | Standard solid enthalpy of combustion |
| **cpg:** | Ideal gas heat capacity |
| **dvisc:** | Dynamic viscosity |
| **gf:** | Standard Gibbs free energy of formation |
| **hf:** | Enthalpy of formation at standard conditions |
| **hfs:** | Solid phase enthalpy of formation at standard conditions |
| **hfus:** | Enthalpy of fusion at standard conditions |
| **hvap:** | Enthalpy of vaporization at standard conditions |
| **log10ws:** | Log10 of Water solubility in mol/l |
| **logp:** | Octanol/Water partition coefficient |
| **mcvol:** | McGowan's characteristic volume |
| **pc:** | Critical Pressure |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |

| | |
|---|---|
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |

Latest version available from:

https://www.chemeo.com/cid/69-639-7/alpha-D-Glucopyranose.pdf

Generated by Cheméo on 2024-10-12 03:40:38.057299856 +0000 UTC m=+3285300.694269104.

Cheméo (https://www.chemeo.com) is the biggest free database of chemical and physical data for the process industry.