

L-Glucose

Inchi:	InChI=1S/2C6H12O6/c2*7-1-2-3(8)4(9)5(10)6(11)12-2/h2*2-11H,1H2/t2-,3+,4+,5+,6?,2-,
InchiKey:	NHUFMXNVSAWNTQ-QPPKWXPNSA-N
Formula:	C6H12O6
SMILES:	OCC1OC(O)C(O)C(O)C1O.OCC1OC(O)C(O)C(O)C1O
Mol. weight [g/mol]:	180.16
CAS:	921-60-8

Physical Properties

Property code	Value	Unit	Source
gf	-1607.82	kJ/mol	Joback Method
hf	-2243.01	kJ/mol	Joback Method
hfus	72.55	kJ/mol	Joback Method
hvap	216.80	kJ/mol	Joback Method
log10ws	2.34		Crippen Method
logp	-6.443		Crippen Method
mcvol	239.520	ml/mol	McGowan Method
pc	5029.93	kPa	Joback Method
tb	1452.80	K	Joback Method
tc	2324.29	K	Joback Method
tf	834.44	K	Joback Method
vc	0.816	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	841.05	J/mol×K	1452.80	Joback Method
cpg	723.21	J/mol×K	1598.05	Joback Method
cpg	553.78	J/mol×K	1743.30	Joback Method
cpg	328.88	J/mol×K	1888.55	Joback Method
cpg	44.60	J/mol×K	2033.80	Joback Method
cpg	-302.92	J/mol×K	2179.05	Joback Method
cpg	-717.58	J/mol×K	2324.29	Joback Method
dvisc	4.6584063e-11	Pa×s	834.44	Joback Method
dvisc	4.1994635e-12	Pa×s	937.50	Joback Method

dvisc	6.0975922e-13	Pa×s	1040.56	Joback Method
dvisc	1.2536203e-13	Pa×s	1143.62	Joback Method
dvisc	3.3477854e-14	Pa×s	1246.68	Joback Method
dvisc	1.0937421e-14	Pa×s	1349.74	Joback Method
dvisc	0.0000000	Pa×s	1452.80	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
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=C921608&Units=SI

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	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

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