

«beta»-D-Glucopyranose

Other names:	Glucoside «beta»-d-Glucose, anhydrous «beta»-D-Glucose beta-Dextrose Beta-d-glucose, anhydrous
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-QYESYBIKSA-N
Formula:	C6H12O6
SMILES:	OCC1OC(O)C(O)C(O)C1O
Mol. weight [g/mol]:	180.16
CAS:	28905-12-6

Physical Properties

Property code	Value	Unit	Source
basg	778.90	kJ/mol	NIST Webbook
chs	-2807.80	kJ/mol	NIST Webbook
chs	-2723.00	kJ/mol	NIST Webbook
gf	-776.97	kJ/mol	Joback Method
hf	-1087.36	kJ/mol	Joback Method
hfs	-1268.30	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	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
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cpg	418.13	J/molxK	825.40	Joback Method
cpg	450.39	J/molxK	980.18	Joback Method
cpg	445.12	J/molxK	949.22	Joback Method
cpg	439.26	J/molxK	918.27	Joback Method
cpg	432.81	J/molxK	887.31	Joback Method
cpg	425.76	J/molxK	856.36	Joback Method
cpg	455.08	J/molxK	1011.14	Joback Method
dvisc	0.0000002	Paxs	825.40	Joback Method
dvisc	0.0000004	Paxs	767.58	Joback Method
dvisc	0.0000011	Paxs	709.76	Joback Method
dvisc	0.0000032	Paxs	651.93	Joback Method
dvisc	0.0000121	Paxs	594.11	Joback Method
dvisc	0.0000602	Paxs	536.29	Joback Method
dvisc	0.0004404	Paxs	478.47	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=C28905126&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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

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