«alpha»-D-Galactopyranoside, methyl

Other names:	Galactopyranoside, methyl, «alpha»-D- «alpha»-Methyl-D-galactopyranoside «alpha»-Methyl-D-galactoside Methyl «alpha»-D-galactopyranoside Methyl «alpha»-D-galactoside Galactopyranoside, methyl, alpha-d- 1-O-Methyl-«alpha»-d-galactopyranoside Methyl alpha-d-galactopyranoside Methyl alpha-d-galactoside Methyl «alpha»-galactopyranoside
Inchi:	InChI=1S/C7H14O6/c1-12-7-6(11)5(10)4(9)3(2-8)13-7/h3-11H,2H2,1H3
InchiKey:	HOVAGTYPODGVJG-UHFFFAOYSA-N
Formula:	C7H14O6
SMILES:	COC1OC(CO)C(O)C(O)C1O
Mol. weight [g/mol]:	194.18
CAS:	3396-99-4

Physical Properties

Property code	Value	Unit	Source
gf	-736.73	kJ/mol	Joback Method
hf	-1087.99	kJ/mol	Joback Method
hfus	35.52	kJ/mol	Joback Method
hvap	104.00	kJ/mol	Joback Method
log10ws	1.07		Crippen Method
logp	-2.567		Crippen Method
mcvol	133.850	ml/mol	McGowan Method
pc	4596.38	kPa	Joback Method
tb	778.52	K	Joback Method
tc	958.16	K	Joback Method
tf	451.15	K	Joback Method
vc	0.471	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	450.93	J/mol×K	778.52	Joback Method
cpg	491.30	J/mol×K	928.22	Joback Method
cpg	484.50	J/mol×K	898.28	Joback Method
cpg	477.06	J/mol×K	868.34	Joback Method
cpg	468.98	J/mol×K	838.40	Joback Method
cpg	460.26	J/mol×K	808.46	Joback Method
cpg	497.43	J/mol×K	958.16	Joback Method
dvisc	0.0000011	Pa×s	778.52	Joback Method
dvisc	0.0000022	Pa×s	723.96	Joback Method
dvisc	0.0000050	Pa×s	669.40	Joback Method
dvisc	0.0000131	Pa×s	614.84	Joback Method
dvisc	0.0000419	Pa×s	560.27	Joback Method
dvisc	0.0001720	Pa×s	505.71	Joback Method
dvisc	0.0009928	Pa×s	451.15	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=C3396994&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