Dulcitol, hexamethyl ether

Other names: 1,2,3,4,5,6-Hexa-O-methyl-d-galactitol
Galactitol permethylated
Inchi: InChI=1S/C12H26O6/c1-13-7-9(15-3)11(17-5)12(18-6)10(16-4)8-14-2/h9-12H,7-8H2,1-6
InchiKey: UJQZVTQJKNAPOQ-UHFFFAOYSA-N
Formula: C12H26O6
SMILES: COCC(OC)C(OC)C(OC)C(COC)OC
Mol. weight [g/mol]: 266.33

Physical Properties

Property code	Value	Unit	Source
gf	-589.60	kJ/mol	Joback Method
hf	-1105.45	kJ/mol	Joback Method
hfus	19.87	kJ/mol	Joback Method
hvap	55.21	kJ/mol	Joback Method
log10ws	0.18		Crippen Method
logp	0.339		Crippen Method
mcvol	215.160	ml/mol	McGowan Method
pc	1679.66	kPa	Joback Method
rinpol	1511.90		NIST Webbook
rinpol	1511.90		NIST Webbook
tb	606.72	K	Joback Method
tc	778.56	K	Joback Method
tf	298.38	K	Joback Method
vc	0.791	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	580.96	J/mol×K	606.72	Joback Method
cpg	597.80	J/mol×K	635.36	Joback Method
cpg	614.05	J/mol×K	664.00	Joback Method
cpg	629.69	J/mol×K	692.64	Joback Method
cpg	644.69	J/mol×K	721.28	Joback Method
cpg	659.03	J/mol×K	749.92	Joback Method

cpg	672.67	J/mol×K	778.56	Joback Method
dvisc	0.0022252	Pa×s	298.38	Joback Method
dvisc	0.0007085	Pa×s	349.77	Joback Method
dvisc	0.0003024	Pa×s	401.16	Joback Method
dvisc	0.0001566	Pa×s	452.55	Joback Method
dvisc	0.0000928	Pa×s	503.94	Joback Method
dvisc	0.0000606	Pa×s	555.33	Joback Method
dvisc	0.0000425	Pa×s	606.72	Joback Method

Sources

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=U332899&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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
rinpol: Non-polar retention indices
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume

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