1,5-Anhydro-2,3,4-tri-O-methyl-D-ribitol

Inchi: InChI=1S/C8H16O4/c1-9-6-4-12-5-7(10-2)8(6)11-3/h6-8H,4-5H2,1-3H3/t6-,7+,8-
InchiKey: DKQVTQIPWUFZRF-RNLVFQAGSA-N
Formula: C8H16O4
SMILES: COC1COCC(OC)C1OC
Mol. weight [g/mol]: 176.21

Physical Properties

Property code	Value	Unit	Source
gf	-375.61	kJ/mol	Joback Method
hf	-723.47	kJ/mol	Joback Method
hfus	22.00	kJ/mol	Joback Method
hvap	44.95	kJ/mol	Joback Method
log10ws	0.25		Crippen Method
logp	0.062		Crippen Method
mcvol	136.200	ml/mol	McGowan Method
pc	2749.78	kPa	Joback Method
rinpol	1223.26		NIST Webbook
rinpol	1223.26		NIST Webbook
tb	486.86	K	Joback Method
tc	683.58	K	Joback Method
tf	272.08	K	Joback Method
vc	0.489	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	323.57	J/mol×K	486.86	Joback Method
cpg	400.30	J/mol×K	650.80	Joback Method
cpg	386.13	J/mol×K	618.01	Joback Method
cpg	371.34	J/mol×K	585.22	Joback Method
cpg	355.96	J/mol×K	552.43	Joback Method
cpg	340.03	J/mol×K	519.65	Joback Method
cpg	413.82	J/mol×K	683.58	Joback Method
dvisc	0.0002034	Pa×s	486.86	Joback Method

dvisc	0.0002508	Pa×s	451.06	Joback Method
dvisc	0.0003207	Pa×s	415.27	Joback Method
dvisc	0.0004294	Pa×s	379.47	Joback Method
dvisc	0.0006112	Pa×s	343.67	Joback Method
dvisc	0.0009442	Pa×s	307.88	Joback Method
dvisc	0.0016357	Pa×s	272.08	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=R194577&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
rinpol:	Non-polar retention indices
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/59-832-3/1-5-Anhydro-2-3-4-tri-O-methyl-D-ribitol.pdf
Generated by Cheméo on 2024-10-12 04:17:38.651816483 +0000 UTC m=+3287521.288785732.
Cheméo (https://www.chemeo.com) is the biggest free database of chemical and physical data for the process industry.