D-(+)-Xylose, tetramethyl ether

Other names: Methyl 2,3,4-tri-O-methyl-d-xylopyranoside
Inchi: InChI=1S/C9H18O5/c1-10-6-5-14-9(13-4)8(12-3)7(6)11-2/h6-9H,5H2,1-4H3
InchiKey: OQFUMNZJTHPYPI-UHFFFAOYSA-N
Formula: C9H18O5
SMILES: COC1COC(OC)C(OC)C1OC
Mol. weight [g/mol]: 206.24

Physical Properties

Property code	Value	Unit	Source
gf	-479.90	kJ/mol	Joback Method
hf	-896.67	kJ/mol	Joback Method
hfus	26.85	kJ/mol	Joback Method
hvap	49.28	kJ/mol	Joback Method
log10ws	0.14		Crippen Method
logp	0.034		Crippen Method
mcvol	156.160	ml/mol	McGowan Method
pc	2372.59	kPa	Joback Method
rinpol	1254.20		NIST Webbook
tb	527.49	K	Joback Method
tc	720.09	K	Joback Method
tf	301.34	K	Joback Method
vc	0.562	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	397.96	J/mol×K	527.49	Joback Method
cpg	479.64	J/mol×K	687.99	Joback Method
cpg	464.58	J/mol×K	655.89	Joback Method
cpg	448.84	J/mol×K	623.79	Joback Method
cpg	432.47	J/mol×K	591.69	Joback Method
cpg	415.49	J/mol×K	559.59	Joback Method
cpg	493.98	J/mol×K	720.09	Joback Method
dvisc	0.0001730	Pa×s	527.49	Joback Method

dvisc	0.0002078	Pa×s	489.80	Joback Method
dvisc	0.0002572	Pa×s	452.11	Joback Method
dvisc	0.0003310	Pa×s	414.42	Joback Method
dvisc	0.0004481	Pa×s	376.72	Joback Method
dvisc	0.0006489	Pa×s	339.03	Joback Method
dvisc	0.0010307	Pa×s	301.34	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U332893&Units=SI
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

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