3,6,9,12-Tetraoxatetradecan-1-ol

Other names: Tetraethylene glycol, monoethyl ether
2-[2-[2-(2-Ethoxyethoxy)ethoxy]ethoxy]ethanol
Inchi: InChI=1S/C10H22O5/c1-2-12-5-6-14-9-10-15-8-7-13-4-3-11/h11H,2-10H2,1H3
InchiKey: GTAKOUPXIUWZIA-UHFFFAOYSA-N
Formula: C10H22O5
SMILES: CCOCCOCCOCCOCCO
Mol. weight [g/mol]: 222.28
CAS: 5650-20-4

Physical Properties

Property code	Value	Unit	Source
gf	-523.50	kJ/mol	Joback Method
hf	-930.84	kJ/mol	Joback Method
hfus	30.50	kJ/mol	Joback Method
hvap	64.17	kJ/mol	Joback Method
log10ws	0.38		Crippen Method
logp	0.065		Crippen Method
mcvol	181.110	ml/mol	McGowan Method
pc	2155.30	kPa	Joback Method
rinpol	1564.30		NIST Webbook
rinpol	1463.00		NIST Webbook
tb	610.06	K	Joback Method
tc	770.12	K	Joback Method
tf	352.20	K	Joback Method
vc	0.686	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	486.75	J/mol×K	610.06	Joback Method
cpg	499.66	J/mol×K	636.74	Joback Method
cpg	512.13	J/mol×K	663.41	Joback Method
cpg	524.16	J/mol×K	690.09	Joback Method
cpg	535.75	J/mol×K	716.77	Joback Method

cpg	546.87	J/mol×K	743.45	Joback Method
cpg	557.52	J/mol×K	770.12	Joback Method
dvisc	0.0022765	Pa×s	352.20	Joback Method
dvisc	0.0007821	Pa×s	395.18	Joback Method
dvisc	0.0003314	Pa×s	438.15	Joback Method
dvisc	0.0001637	Pa×s	481.13	Joback Method
dvisc	0.0000908	Pa×s	524.11	Joback Method
dvisc	0.0000550	Pa×s	567.08	Joback Method
dvisc	0.0000358	Pa×s	610.06	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C5650204&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