Hexaethylene glycol, nonyl ether

Other names:	2-(2-(2-(2-(2-(2-nonyloxy-ethoxy)-ethoxy)-ethoxy)-ethoxy)-ethoxy)-ethanol
Inchi:	InChI=1S/C21H44O7/c1-2-3-4-5-6-7-8-10-23-12-14-25-16-18-27-20-21-28-19-17-26-15-1
InchiKey:	LOSYGTFWYQKEFS-UHFFFAOYSA-N
Formula:	C21H44O7
SMILES:	CCCCCCCCCOCCOCCOCCOCCOCCOCCO
Mol. weight [g/mol]:	408.57

Physical Properties

Property code	Value	Unit	Source
gf	-640.88	kJ/mol	Joback Method
hf	-1422.32	kJ/mol	Joback Method
hfus	61.36	kJ/mol	Joback Method
hvap	93.48	kJ/mol	Joback Method
log10ws	-2.40		Crippen Method
logp	2.829		Crippen Method
mcvol	347.840	ml/mol	McGowan Method
pc	950.25	kPa	Joback Method
rinpol	2912.80		NIST Webbook
rinpol	2912.80		NIST Webbook
tb	906.58	K	Joback Method
tc	1119.70	K	Joback Method
tf	520.63	K	Joback Method
vc	1.339	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1184.43	J/mol×K	906.58	Joback Method
cpg	1204.13	J/mol×K	942.10	Joback Method
cpg	1222.05	J/mol×K	977.62	Joback Method
cpg	1238.15	J/mol×K	1013.14	Joback Method
cpg	1252.42	J/mol×K	1048.66	Joback Method
cpg	1264.84	J/mol×K	1084.18	Joback Method
cpg	1275.37	J/mol×K	1119.70	Joback Method

dvisc	0.0001055	Pa×s	520.63	Joback Method
dvisc	0.0000388	Pa×s	584.95	Joback Method
dvisc	0.0000174	Pa×s	649.28	Joback Method
dvisc	0.0000090	Pa×s	713.61	Joback Method
dvisc	0.0000052	Pa×s	777.93	Joback Method
dvisc	0.0000033	Pa×s	842.26	Joback Method
dvisc	0.0000022	Pa×s	906.58	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=R184080&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

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