

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-
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/molxK	906.58	Joback Method
cpg	1204.13	J/molxK	942.10	Joback Method
cpg	1222.05	J/molxK	977.62	Joback Method
cpg	1238.15	J/molxK	1013.14	Joback Method
cpg	1252.42	J/molxK	1048.66	Joback Method
cpg	1264.84	J/molxK	1084.18	Joback Method
cpg	1275.37	J/molxK	1119.70	Joback Method

dvisc	0.0001055	Paxs	520.63	Joback Method
dvisc	0.0000388	Paxs	584.95	Joback Method
dvisc	0.0000174	Paxs	649.28	Joback Method
dvisc	0.0000090	Paxs	713.61	Joback Method
dvisc	0.0000052	Paxs	777.93	Joback Method
dvisc	0.0000033	Paxs	842.26	Joback Method
dvisc	0.0000022	Paxs	906.58	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R184080&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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

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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