Heptaethylene glycol monoethyl ether

Inchi: InChI=1S/C16H34O8/c1-2-18-5-6-20-9-10-22-13-14-24-16-15-23-12-11-21-8-7-19-4-3-17
InchiKey: PJWQOENWHPEPKI-UHFFFAOYSA-N
Formula: C16H34O8
SMILES: CCOCCOCCOCCOCCOCCOCCOCCO
Mol. weight [g/mol]: 354.44

Physical Properties

Property code	Value	Unit	Source
gf	-787.98	kJ/mol	Joback Method
hf	-1451.34	kJ/mol	Joback Method
hfus	49.60	kJ/mol	Joback Method
hvap	84.76	kJ/mol	Joback Method
log10ws	0.61		Crippen Method
logp	0.115		Crippen Method
mcvol	283.260	ml/mol	McGowan Method
pc	1293.00	kPa	Joback Method
rinpol	2398.00		NIST Webbook
tb	814.60	K	Joback Method
tc	997.36	K	Joback Method
tf	486.51	K	Joback Method
vc	1.077	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	909.21	J/mol×K	814.60	Joback Method
cpg	981.23	J/mol×K	966.90	Joback Method
cpg	969.16	J/mol×K	936.44	Joback Method
cpg	955.89	J/mol×K	905.98	Joback Method
cpg	941.45	J/mol×K	875.52	Joback Method
cpg	925.88	J/mol×K	845.06	Joback Method
cpg	992.07	J/mol×K	997.36	Joback Method
dvisc	0.0000041	Pa×s	814.60	Joback Method
dvisc	0.0000060	Pa×s	759.92	Joback Method

dvisc	0.0000095	Pa×s	705.24	Joback Method
dvisc	0.0000160	Pa×s	650.55	Joback Method
dvisc	0.0000297	Pa×s	595.87	Joback Method
dvisc	0.0000625	Pa×s	541.19	Joback Method
dvisc	0.0001556	Pa×s	486.51	Joback Method

Sources

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=R178817&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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