Octaethylene glycol

Other names:	Octaethylene glycol
	3,6,9,12,15,18,21-Heptaoxatricosane-1,23-diol
	PE8
Inchi:	InChI=1S/C16H34O9/c17-1-3-19-5-7-21-9-11-23-13-15-25-16-14-24-12-10-22-8-6-20-4-2
InchiKey:	GLZWNFNQMJAZGY-UHFFFAOYSA-N
Formula:	C16H34O9
SMILES:	OCCOCCOCCOCCOCCOCCOCCOCCO
Mol. weight [g/mol]:	370.44

Physical Properties

Property code	Value	Unit	Source
hf	-1535.07	kJ/mol	Cheméo Relay (1.0)
hfus	53.69	kJ/mol	Joback Method
hvap	119.89	kJ/mol	Cheméo Relay (1.0)
ie	9.78	eV	Cheméo Relay (1.0)
log10ws	0.22		Cheméo Relay (1.0)
logp	-0.913		Crippen Method
mcvol	289.130	ml/mol	McGowan Method
pc	1382.99	kPa	Joback Method
rinpol	2659.70		NIST Webbook
rinpol	2659.70		NIST Webbook
tb	690.07	K	Cheméo Relay (1.0)
tc	911.80	K	Cheméo Relay (1.0)
tf	257.35	K	Cheméo Relay (1.0)

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	974.67	J/mol×K	906.78	Joback Method
cpg	990.12	J/mol×K	942.35	Joback Method
cpg	1003.92	J/mol×K	977.93	Joback Method
cpg	1016.01	J/mol×K	1013.50	Joback Method
cpg	1026.36	J/mol×K	1049.08	Joback Method
cpg	1034.90	J/mol×K	1084.65	Joback Method

cpg	1041.59	J/mol×K	1120.23	Joback Method
dvisc	0.0000402	Pa×s	547.33	Joback Method
dvisc	0.0000133	Pa×s	607.24	Joback Method
dvisc	0.0000054	Pa×s	667.15	Joback Method
dvisc	0.0000025	Pa×s	727.06	Joback Method
dvisc	0.0000013	Pa×s	786.96	Joback Method
dvisc	0.0000008	Pa×s	846.87	Joback Method
dvisc	0.0000005	Pa×s	906.78	Joback Method

Sources

Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Cheméo Relay (1.0):	
Cheméo Relay (1.0, beta):	
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C5117191&Units=SI
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
ie:	Ionization energy
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