2-[2-[2-[2-[2-[2-[2-(2-Hydroxyethoxy)ethoxy]ethoxy

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
CAS: 5117-19-1

Physical Properties

Property code	Value	Unit	Source
gf	-924.80	kJ/mol	Joback Method
hf	-1603.57	kJ/mol	Joback Method
hfus	53.69	kJ/mol	Joback Method
hvap	101.44	kJ/mol	Joback Method
log10ws	1.34		Crippen Method
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	906.78	K	Joback Method
tc	1120.23	K	Joback Method
tf	547.33	K	Joback Method
vc	1.095	m3/kmol	Joback Method

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

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C5117191&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
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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