Hexaethylene glycol monomethyl ether

Other names: 2,5,8,11,14,17-hexaoxanonadecan-19-ol
2-[2-[2-[2-[2-(2-Methoxyethoxy)ethoxy]ethoxy]ethoxy]ethoxy]ethanol
Inchi: InChI=1S/C13H28O7/c1-15-4-5-17-8-9-19-12-13-20-11-10-18-7-6-16-3-2-14/h14H,2-13H
InchiKey: FHHGCKHKTAJLOM-UHFFFAOYSA-N
Formula: C13H28O7
SMILES: COCCOCCOCCOCCOCCOCCO
Mol. weight [g/mol]: 296.36
CAS: 23601-40-3

Physical Properties

Property code	Value	Unit	Source
gf	-708.24	kJ/mol	Joback Method
hf	-1257.20	kJ/mol	Joback Method
hfus	40.64	kJ/mol	Joback Method
hvap	75.67	kJ/mol	Joback Method
log10ws	0.95		Crippen Method
logp	-0.292		Crippen Method
mcvol	235.120	ml/mol	McGowan Method
pc	1631.17	kPa	Joback Method
rinpol	2056.00		NIST Webbook
rinpol	2069.10		NIST Webbook
rinpol	2069.10		NIST Webbook
tb	723.54	K	Joback Method
tc	890.67	K	Joback Method
tf	430.47	K	Joback Method
vc	0.890	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	704.43	J/mol×K	723.54	Joback Method
cpg	719.38	J/mol×K	751.39	Joback Method
cpg	733.65	J/mol×K	779.25	Joback Method
cpg	747.20	J/mol×K	807.10	Joback Method

cpg	760.02	J/mol×K	834.96	Joback Method
cpg	772.08	J/mol×K	862.81	Joback Method
cpg	783.36	J/mol×K	890.67	Joback Method
dvisc	0.0004398	Pa×s	430.47	Joback Method
dvisc	0.0001711	Pa×s	479.31	Joback Method
dvisc	0.0000793	Pa×s	528.16	Joback Method
dvisc	0.0000419	Pa×s	577.00	Joback Method
dvisc	0.0000244	Pa×s	625.85	Joback Method
dvisc	0.0000154	Pa×s	674.69	Joback Method
dvisc	0.0000103	Pa×s	723.54	Joback Method

Sources

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=C23601403&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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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