2-(2-(2-Pentoxy-ethoxy)-ethoxy)-ethanol

Other names: Tetraethylene glycol, pentyl ether
Inchi: InChI=1S/C13H28O5/c1-2-3-4-6-15-8-10-17-12-13-18-11-9-16-7-5-14/h14H,2-13H2,1H3
InchiKey: BNDGLJHKQGHIBZ-UHFFFAOYSA-N
Formula: C13H28O5
SMILES: CCCCCOCCOCCOCCOCCO
Mol. weight [g/mol]: 264.36

Physical Properties

Property code	Value	Unit	Source
gf	-498.24	kJ/mol	Joback Method
hf	-992.76	kJ/mol	Joback Method
hfus	38.27	kJ/mol	Joback Method
hvap	70.85	kJ/mol	Joback Method
log10ws	-0.88		Crippen Method
logp	1.235		Crippen Method
mcvol	223.380	ml/mol	McGowan Method
pc	1676.91	kPa	Joback Method
rinpol	1946.00		NIST Webbook
tb	678.70	K	Joback Method
tc	841.28	K	Joback Method
tf	386.01	K	Joback Method
vc	0.855	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	645.77	J/mol×K	678.70	Joback Method
cpg	714.43	J/mol×K	814.18	Joback Method
cpg	701.93	J/mol×K	787.09	Joback Method
cpg	688.81	J/mol×K	759.99	Joback Method
cpg	675.07	J/mol×K	732.89	Joback Method
cpg	660.72	J/mol×K	705.80	Joback Method
cpg	726.30	J/mol×K	841.28	Joback Method
dvisc	0.0000200	Pa×s	678.70	Joback Method

dvisc	0.0000307	Pa×s	629.92	Joback Method
dvisc	0.0000505	Pa×s	581.14	Joback Method
dvisc	0.0000912	Pa×s	532.36	Joback Method
dvisc	0.0001853	Pa×s	483.57	Joback Method
dvisc	0.0004416	Pa×s	434.79	Joback Method
dvisc	0.0013104	Pa×s	386.01	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=R188611&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