Pentaethylene glycol, pentyl ether, acetate

Other names: 2-(2-(2-(2-Pentoxy-ethoxy)-ethoxy)-ethoxy)-ethoxy)-ethyl acetate
Inchi: InChI=1S/C17H34O7/c1-3-4-5-6-19-7-8-20-9-10-21-11-12-22-13-14-23-15-16-24-17(2)18
InchiKey: KJYVBOFFXKSKCF-UHFFFAOYSA-N
Formula: C17H34O7
SMILES: CCCCCOCCOCCOCCOCCOCCOC(C)=O
Mol. weight [g/mol]: 350.45

Physical Properties

Property code	Value	Unit	Source
gf	-666.66	kJ/mol	Joback Method
hf	-1300.11	kJ/mol	Joback Method
hfus	48.51	kJ/mol	Joback Method
hvap	74.64	kJ/mol	Joback Method
log10ws	-1.24		Crippen Method
logp	1.823		Crippen Method
mcvol	287.180	ml/mol	McGowan Method
pc	1198.13	kPa	Joback Method
rinpol	2358.00		NIST Webbook
rinpol	2358.00		NIST Webbook
tb	776.75	K	Joback Method
tc	953.99	K	Joback Method
tf	464.66	K	Joback Method
vc	1.101	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	889.66	J/mol×K	776.75	Joback Method
cpg	967.11	J/mol×K	924.45	Joback Method
cpg	953.71	J/mol×K	894.91	Joback Method
cpg	939.24	J/mol×K	865.37	Joback Method
cpg	923.72	J/mol×K	835.83	Joback Method
cpg	907.19	J/mol×K	806.29	Joback Method
cpg	979.43	J/mol×K	953.99	Joback Method

dvisc	0.0000272	Pa×s	776.75	Joback Method
dvisc	0.0000355	Pa×s	724.74	Joback Method
dvisc	0.0000484	Pa×s	672.72	Joback Method
dvisc	0.0000693	Pa×s	620.71	Joback Method
dvisc	0.0001061	Pa×s	568.69	Joback Method
dvisc	0.0001770	Pa×s	516.68	Joback Method
dvisc	0.0003310	Pa×s	464.66	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R188359&Units=SI

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