2-(2-(2-(2-(2-(2-(2-Pentoxy-ethoxy)-ethoxy)-ethoxy acetate

Other names: Octaethylene glycol, pentyl ether, acetate
Inchi: InChI=1S/C23H46O10/c1-4-5-22(2)32-20-18-30-16-14-28-12-10-26-8-6-25-7-9-27-11-13
InchiKey: MSPZUWINHIAXNT-UHFFFAOYSA-N
Formula: C23H46O10
SMILES: CCCC(C)OCCOCCOCCOCCOCCOCCOCCOCC(C)=O
Mol. weight [g/mol]: 482.61

Physical Properties

Property code	Value	Unit	Source
gf	-933.58	kJ/mol	Joback Method
hf	-1825.89	kJ/mol	Joback Method
hfus	64.09	kJ/mol	Joback Method
hvap	94.84	kJ/mol	Joback Method
log10ws	-1.12		Crippen Method
logp	1.871		Crippen Method
mcvol	389.330	ml/mol	McGowan Method
pc	812.61	kPa	Joback Method
rinpol	3191.40		NIST Webbook
rinpol	3191.40		NIST Webbook
tb	980.85	K	Joback Method
tc	1217.46	K	Joback Method
tf	583.97	K	Joback Method
vc	1.486	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1352.99	J/mol×K	980.85	Joback Method
cpg	1411.40	J/mol×K	1178.02	Joback Method
cpg	1405.97	J/mol×K	1138.59	Joback Method
cpg	1397.33	J/mol×K	1099.15	Joback Method
cpg	1385.56	J/mol×K	1059.72	Joback Method
cpg	1370.75	J/mol×K	1020.28	Joback Method
cpg	1413.53	J/mol×K	1217.46	Joback Method

dvisc	0.0000039	Pa×s	980.85	Joback Method
dvisc	0.0000051	Pa×s	914.70	Joback Method
dvisc	0.0000071	Pa×s	848.56	Joback Method
dvisc	0.0000105	Pa×s	782.41	Joback Method
dvisc	0.0000165	Pa×s	716.26	Joback Method
dvisc	0.0000286	Pa×s	650.12	Joback Method
dvisc	0.0000560	Pa×s	583.97	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=R187876&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

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