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

Other names: Hexaethylene glycol, pentyl ether, acetate
Inchi: InChI=1S/C19H38O8/c1-3-4-5-6-21-7-8-22-9-10-23-11-12-24-13-14-25-15-16-26-17-18-2
InchiKey: JHVKTFSMVJTXBL-UHFFFAOYSA-N
Formula: C19H38O8
SMILES: CCCCCOCCOCCOCCOCCOCCOCCOC(C)=O
Mol. weight [g/mol]: 394.50

Physical Properties

Property code	Value	Unit	Source
gf	-754.82	kJ/mol	Joback Method
hf	-1473.61	kJ/mol	Joback Method
hfus	54.88	kJ/mol	Joback Method
hvap	81.50	kJ/mol	Joback Method
log10ws	-1.16		Crippen Method
logp	1.839		Crippen Method
mcvol	321.230	ml/mol	McGowan Method
pc	1041.93	kPa	Joback Method
rinpol	2636.60		NIST Webbook
rinpol	2636.60		NIST Webbook
tb	844.93	K	Joback Method
tc	1034.45	K	Joback Method
tf	509.43	K	Joback Method
vc	1.232	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1042.30	J/mol×K	844.93	Joback Method
cpg	1119.15	J/mol×K	1002.86	Joback Method
cpg	1106.63	J/mol×K	971.28	Joback Method
cpg	1092.66	J/mol×K	939.69	Joback Method
cpg	1077.26	J/mol×K	908.10	Joback Method
cpg	1060.46	J/mol×K	876.52	Joback Method
cpg	1130.17	J/mol×K	1034.45	Joback Method

dvisc	0.0000150	Pa×s	844.93	Joback Method
dvisc	0.0000196	Pa×s	789.01	Joback Method
dvisc	0.0000266	Pa×s	733.10	Joback Method
dvisc	0.0000382	Pa×s	677.18	Joback Method
dvisc	0.0000585	Pa×s	621.26	Joback Method
dvisc	0.0000973	Pa×s	565.35	Joback Method
dvisc	0.0001811	Pa×s	509.43	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=R188191&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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