2-[2-[2-[2-[2-[2-(2-Acetyloxyethoxy)ethoxy]ethoxy]ethoxy]ethoxy]ethoxy]ethyl acetate

Other names: Heptaethylene glycol, diacetate

22-Oxo-3,6,9,12,15,18,21-heptaoxatricos-1-yl acetate

Inchi: InChI=1S/C18H34O10/c1-17(19)27-15-13-25-11-9-23-7-5-21-3-4-22-6-8-24-10-12-26-14

InchiKey: VUSYGWHJKMDOHY-UHFFFAOYSA-N

Formula: C18H34O10

SMILES: CC(=O)OCCOCCOCCOCCOCCOCCOCCOC(C)=O

Mol. weight [g/mol]: 410.46

Physical Properties

Property code	Value	Unit	Source
gf	-997.16	kJ/mol	Joback Method
hf	-1697.77	kJ/mol	Joback Method
hfus	55.08	kJ/mol	Joback Method
hvap	88.43	kJ/mol	Joback Method
log10ws	0.39		Crippen Method
logp	0.212		Crippen Method
mcvol	314.580	ml/mol	McGowan Method
pc	1144.44	kPa	Joback Method
rinpol	2610.00		NIST Webbook
rinpol	2610.00		NIST Webbook
rinpol	2609.00		NIST Webbook
rinpol	2612.00		NIST Webbook
rinpol	2603.00		NIST Webbook
rinpol	2605.00		NIST Webbook
rinpol	2611.00		NIST Webbook
rinpol	2610.00		NIST Webbook
rinpol	2603.00		NIST Webbook
rinpol	2611.00		NIST Webbook
rinpol	2605.00		NIST Webbook
rinpol	2609.00		NIST Webbook
rinpol	2600.00		NIST Webbook
rinpol	2608.00		NIST Webbook
rinpol	2630.40		NIST Webbook
rinpol	2609.00		NIST Webbook
tb	898.34	K	Joback Method
tc	1100.40	K	Joback Method
tf	570.32	K	Joback Method

vc	1.200	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1032.37	J/mol×K	898.34	Joback Method
cpg	1047.87	J/mol×K	932.02	Joback Method
cpg	1061.70	J/mol×K	965.69	Joback Method
cpg	1073.79	J/mol×K	999.37	Joback Method
cpg	1084.10	J/mol×K	1033.04	Joback Method
cpg	1092.55	J/mol×K	1066.72	Joback Method
cpg	1099.09	J/mol×K	1100.40	Joback Method
dvisc	0.0001111	Pa×s	570.32	Joback Method
dvisc	0.0000652	Pa×s	624.99	Joback Method
dvisc	0.0000417	Pa×s	679.66	Joback Method
dvisc	0.0000285	Pa×s	734.33	Joback Method
dvisc	0.0000205	Pa×s	789.00	Joback Method
dvisc	0.0000154	Pa×s	843.67	Joback Method
dvisc	0.0000120	Pa×s	898.34	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=U351907&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