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

Other names: Nonaethylene glycol, diacetate

28-Oxo-3,6,9,12,15,18,21,24,27-nonaoxanonacos-1-yl acetate

Inchi: InChI=1S/C22H42O12/c1-21(23)33-19-17-31-15-13-29-11-9-27-7-5-25-3-4-26-6-8-28-10

InchiKey: LJIHNOTXDOHMJC-UHFFFAOYSA-N

Formula: C22H42O12

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

Mol. weight [g/mol]: 498.56

Physical Properties

Property code	Value	Unit	Source
gf	-1173.48	kJ/mol	Joback Method
hf	-2044.77	kJ/mol	Joback Method
hfus	67.81	kJ/mol	Joback Method
hvap	102.16	kJ/mol	Joback Method
log10ws	0.54		Crippen Method
logp	0.245		Crippen Method
mcvol	382.680	ml/mol	McGowan Method
pc	878.44	kPa	Joback Method
rinpol	3192.00		NIST Webbook
rinpol	3195.00		NIST Webbook
rinpol	3190.00		NIST Webbook
rinpol	3200.00		NIST Webbook
rinpol	3175.00		NIST Webbook
rinpol	3191.00		NIST Webbook
rinpol	3190.00		NIST Webbook
rinpol	3190.00		NIST Webbook
rinpol	3200.00		NIST Webbook
rinpol	3194.00		NIST Webbook
rinpol	3192.00		NIST Webbook
rinpol	3190.00		NIST Webbook
rinpol	3191.00		NIST Webbook
rinpol	3200.00		NIST Webbook
rinpol	3200.00		NIST Webbook
rinpol	3191.00		NIST Webbook
tb	1034.70	K	Joback Method
tc	1293.48	K	Joback Method
tf	659.86	K	Joback Method

vc	1.460	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1330.35	J/mol×K	1034.70	Joback Method
cpg	1343.10	J/mol×K	1077.83	Joback Method
cpg	1351.96	J/mol×K	1120.96	Joback Method
cpg	1356.78	J/mol×K	1164.09	Joback Method
cpg	1357.41	J/mol×K	1207.22	Joback Method
cpg	1353.69	J/mol×K	1250.35	Joback Method
cpg	1345.47	J/mol×K	1293.48	Joback Method
dvisc	0.0000315	Pa×s	659.86	Joback Method
dvisc	0.0000184	Pa×s	722.33	Joback Method
dvisc	0.0000117	Pa×s	784.81	Joback Method
dvisc	0.0000080	Pa×s	847.28	Joback Method
dvisc	0.0000057	Pa×s	909.75	Joback Method
dvisc	0.0000043	Pa×s	972.23	Joback Method
dvisc	0.0000033	Pa×s	1034.70	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=U351905&Units=SI

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

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