

Glucose, 2-ethyl, acetylated

Inchi:	InChI=1S/C16H24O10/c1-6-21-15-14(24-10(4)19)13(23-9(3)18)12(7-22-8(2)17)26-16(15
InchiKey:	ADFPSHFKHWQPQR-QMHWVQJVSA-N
Formula:	C16H24O10
SMILES:	CCOC1C(OC(C)=O)OC(COC(C)=O)C(OC(C)=O)C1OC(C)=O
Mol. weight [g/mol]:	376.36

Physical Properties

Property code	Value	Unit	Source
gf	-1049.35	kJ/mol	Joback Method
hf	-1644.03	kJ/mol	Joback Method
hfus	53.63	kJ/mol	Joback Method
hvap	93.95	kJ/mol	Joback Method
log10ws	-1.09		Crippen Method
logp	0.106		Crippen Method
mcvol	266.940	ml/mol	McGowan Method
pc	1570.96	kPa	Joback Method
rinpol	2202.00		NIST Webbook
tb	920.88	K	Joback Method
tc	1133.72	K	Joback Method
tf	597.94	K	Joback Method
vc	0.996	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	899.52	J/molxK	920.88	Joback Method
cpg	911.94	J/molxK	956.35	Joback Method
cpg	922.45	J/molxK	991.83	Joback Method
cpg	930.98	J/molxK	1027.30	Joback Method
cpg	937.47	J/molxK	1062.77	Joback Method
cpg	941.86	J/molxK	1098.25	Joback Method
cpg	944.08	J/molxK	1133.72	Joback Method
dvisc	0.0004734	Paxs	597.94	Joback Method
dvisc	0.0003228	Paxs	651.76	Joback Method

dvisc	0.0002333	Paxs	705.59	Joback Method
dvisc	0.0001766	Paxs	759.41	Joback Method
dvisc	0.0001387	Paxs	813.23	Joback Method
dvisc	0.0001123	Paxs	867.06	Joback Method
dvisc	0.0000931	Paxs	920.88	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R530186&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

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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