Glycerol 1,2-diacetate

Other names:	1,2,3-Propanetriol, 1,2-diacetate
	2-(Acetyloxy)-1-(hydroxymethyl)ethyl acetate
	1,2-Diacetin
	Acetin, 1,2-di-
	Acetic acid, diglyceride
	(Hydroxymethyl)ethylene acetate
	1,2-Diacetylglycerol
	2,3-Diacetin
	2,3-Diacetoxypropan-1-ol
	NSC 2348
Inchi:	InChI=1S/C7H12O5/c1-5(9)11-4-7(3-8)12-6(2)10/h7-8H,3-4H2,1-2H3
InchiKey:	UXDDRFCJKNROTO-UHFFFAOYSA-N
Formula:	C7H12O5
SMILES:	CC(=O)OCC(CO)OC(C)=O
Mol. weight [g/mol]:	176.17
CAS:	102-62-5

Physical Properties

Property code	Value	Unit	Source
gf	-599.04	kJ/mol	Joback Method
hf	-834.92	kJ/mol	Joback Method
hfus	20.03	kJ/mol	Joback Method
hvap	65.78	kJ/mol	Joback Method
log10ws	0.15		Crippen Method
logp	-0.527		Crippen Method
mcvol	130.240	ml/mol	McGowan Method
pc	3468.36	kPa	Joback Method
tb	603.88	K	Joback Method
tc	784.28	K	Joback Method
tf	358.79	K	Joback Method
vc	0.488	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	325.66	J/mol×K	603.88	Joback Method
cpg	335.00	J/mol×K	633.95	Joback Method
cpg	343.95	J/mol×K	664.01	Joback Method
cpg	352.49	J/mol×K	694.08	Joback Method
cpg	360.63	J/mol×K	724.15	Joback Method
cpg	368.34	J/mol×K	754.22	Joback Method
cpg	375.62	J/mol×K	784.28	Joback Method
dvisc	0.0038673	Pa×s	358.79	Joback Method
dvisc	0.0014417	Pa×s	399.64	Joback Method
dvisc	0.0006454	Pa×s	440.49	Joback Method
dvisc	0.0003312	Pa×s	481.34	Joback Method
dvisc	0.0001886	Pa×s	522.18	Joback Method
dvisc	0.0001166	Pa×s	563.03	Joback Method
dvisc	0.0000769	Pa×s	603.88	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=C102625&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
tb: Normal Boiling Point Temperature
tc: Critical Temperature

tf: Normal melting (fusion) point

vc: Critical Volume