Ethanone, 2-(acetyloxy)-1-phenyl-

Other names:	Acetophenone, 2-hydroxy-, acetate
	«omega»-Acetoxyacetophenone
	Phenacyl acetate
	2-Hydroxyacetophenoneacetate
	2-Acetoxy-1-phenylethanone
	NSC 9837
Inchi:	InChI=1S/C10H10O3/c1-8(11)13-7-10(12)9-5-3-2-4-6-9/h2-6H,7H2,1H3
InchiKey:	BGAXCPSNMHVHJC-UHFFFAOYSA-N
Formula:	C10H10O3
SMILES:	CC(=O)OCC(=O)c1ccccc1
Mol. weight [g/mol]:	178.18
CAS:	2243-35-8

Physical Properties

Property code	Value	Unit	Source
gf	-217.11	kJ/mol	Joback Method
hf	-370.58	kJ/mol	Joback Method
hfus	20.08	kJ/mol	Joback Method
hvap	56.03	kJ/mol	Joback Method
log10ws	-1.83		Crippen Method
logp	1.432		Crippen Method
mcvol	137.010	ml/mol	McGowan Method
pc	3310.55	kPa	Joback Method
tb	585.04	K	Joback Method
tc	805.88	K	Joback Method
tf	350.97	K	Joback Method
vc	0.517	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	316.40	J/mol×K	585.04	Joback Method
cpg	370.44	J/mol×K	769.07	Joback Method
cpg	361.13	J/mol×K	732.27	Joback Method

cpg	351.09	J/mol×K	695.46	Joback Method
cpg	340.30	J/mol×K	658.65	Joback Method
cpg	328.74	J/mol×K	621.85	Joback Method
cpg	379.03	J/mol×K	805.88	Joback Method
dvisc	0.0002309	Pa×s	585.04	Joback Method
dvisc	0.0002912	Pa×s	546.03	Joback Method
dvisc	0.0003805	Pa×s	507.02	Joback Method
dvisc	0.0005201	Pa×s	468.00	Joback Method
dvisc	0.0007523	Pa×s	428.99	Joback Method
dvisc	0.0011717	Pa×s	389.98	Joback Method
dvisc	0.0020137	Pa×s	350.97	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C2243358&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

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