Cyclopentanol, acetate

Other names:	acetic acid, cyclopentyl ester
	cyclopentyl acetate
	cyclopentyl ethanoate
Inchi:	InChI=1S/C7H12O2/c1-6(8)9-7-4-2-3-5-7/h7H,2-5H2,1H3
InchiKey:	YFPCLQKFNXUAAK-UHFFFAOYSA-N
Formula:	C7H12O2
SMILES:	CC(=O)OC1CCCC1
Mol. weight [g/mol]:	128.17
CAS:	933-05-1

Physical Properties

Property code	Value	Unit	Source
gf	-189.31	kJ/mol	Joback Method
hf	-372.13	kJ/mol	Joback Method
hfus	10.61	kJ/mol	Joback Method
hvap	40.59	kJ/mol	Joback Method
log10ws	-1.62		Crippen Method
logp	1.492		Crippen Method
mcvol	106.070	ml/mol	McGowan Method
pc	3611.55	kPa	Joback Method
tb	409.40 ± 2.00	K	NIST Webbook
tc	657.44	K	Joback Method
tf	251.71	K	Joback Method
vc	0.393	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	221.09	J/mol×K	451.13	Joback Method
cpg	235.14	J/mol×K	485.51	Joback Method
cpg	248.51	J/mol×K	519.90	Joback Method
cpg	261.22	J/mol×K	554.28	Joback Method
cpg	273.28	J/mol×K	588.67	Joback Method
cpg	284.70	J/mol×K	623.05	Joback Method

cpg	295.49	J/mol×K	657.44	Joback Method
dvisc	0.0030776	Pa×s	251.71	Joback Method
dvisc	0.0017254	Pa×s	284.95	Joback Method
dvisc	0.0010917	Pa×s	318.18	Joback Method
dvisc	0.0007532	Pa×s	351.42	Joback Method
dvisc	0.0005540	Pa×s	384.66	Joback Method
dvisc	0.0004280	Pa×s	417.89	Joback Method
dvisc	0.0003434	Pa×s	451.13	Joback Method
hvapt	48.50	kJ/mol	298.15	Vapor pressures and enthalpies of vaporization of azides

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C933051&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Vapor pressures and enthalpies of vaporization of azides:	https://www.doi.org/10.1016/j.jct.2011.05.028
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
hvapt:	Enthalpy of vaporization at a given temperature
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