1,1,2,2-Tetraacetylethane

Other names:	3,4-Diacetyl-2,5-hexanedione
	tetra Acetyl ethane
	2,5-Hexanedione, 3,4-diacetyl-
	3.3'-Bis(acetylacetone)
	3,4-diacetylhexane-2,5-dione
Inchi:	InChI=1S/C10H14O4/c1-5(11)9(6(2)12)10(7(3)13)8(4)14/h9-10H,1-4H3
InchiKey:	CSKRBHOAJUMOKJ-UHFFFAOYSA-N
Formula:	C10H14O4
SMILES:	CC(=O)C(C(C)=O)C(C(C)=O)C(C)=O
Mol. weight [g/mol]:	198.22
CAS:	5027-32-7

Physical Properties

Property code	Value	Unit	Source
gf	-487.24	kJ/mol	Joback Method
hf	-710.61	kJ/mol	Joback Method
hfus	21.01	kJ/mol	Joback Method
hvap	64.06	kJ/mol	Joback Method
log10ws	-0.65		Crippen Method
logp	0.575		Crippen Method
mcvol	158.040	ml/mol	McGowan Method
pc	2741.15	kPa	Joback Method
tb	642.80	K	Joback Method
tc	847.37	K	Joback Method
tf	372.18	K	Joback Method
vc	0.608	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	400.70	J/mol×K	642.80	Joback Method
cpg	453.32	J/mol×K	813.28	Joback Method
cpg	444.16	J/mol×K	779.18	Joback Method
cpg	434.34	J/mol×K	745.09	Joback Method

cpg	423.83	J/mol×K	710.99	Joback Method
cpg	412.62	J/mol×K	676.90	Joback Method
cpg	461.83	J/mol×K	847.37	Joback Method
dvisc	0.0002700	Pa×s	642.80	Joback Method
dvisc	0.0003542	Pa×s	597.70	Joback Method
dvisc	0.0004857	Pa×s	552.59	Joback Method
dvisc	0.0007045	Pa×s	507.49	Joback Method
dvisc	0.0010988	Pa×s	462.39	Joback Method
dvisc	0.0018866	Pa×s	417.28	Joback Method
dvisc	0.0036927	Pa×s	372.18	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=C5027327&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