1,1-Dimethoxy-2,2-dimethylpropane

Inchi: InChI=1S/C7H16O2/c1-7(2,3)6(8-4)9-5/h6H,1-5H3
InchiKey: XUBRLDMMLUFLRU-UHFFFAOYSA-N
Formula: C7H16O2
SMILES: COC(OC)C(C)(C)C
Mol. weight [g/mol]: 132.20
CAS: 62617-39-4

Physical Properties

Property code	Value	Unit	Source
gf	-201.54	kJ/mol	Joback Method
hf	-466.28	kJ/mol	Joback Method
hfus	5.33	kJ/mol	Joback Method
hvap	34.31	kJ/mol	Joback Method
log10ws	-1.29		Crippen Method
logp	1.651		Crippen Method
mcvol	121.230	ml/mol	McGowan Method
pc	2778.85	kPa	Joback Method
tb	400.73	K	Joback Method
tc	580.29	K	Joback Method
tf	200.53	K	Joback Method
vc	0.447	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	243.94	J/mol×K	400.73	Joback Method
cpg	256.93	J/mol×K	430.66	Joback Method
cpg	269.45	J/mol×K	460.58	Joback Method
cpg	281.49	J/mol×K	490.51	Joback Method
cpg	293.06	J/mol×K	520.44	Joback Method
cpg	304.18	J/mol×K	550.36	Joback Method
cpg	314.84	J/mol×K	580.29	Joback Method
dvisc	0.0086527	Pa×s	200.53	Joback Method
dvisc	0.0029934	Pa×s	233.90	Joback Method

dvisc	0.0013498	Pa×s	267.26	Joback Method
dvisc	0.0007264	Pa×s	300.63	Joback Method
dvisc	0.0004424	Pa×s	334.00	Joback Method
dvisc	0.0002949	Pa×s	367.36	Joback Method
dvisc	0.0002103	Pa×s	400.73	Joback Method

Sources

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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C62617394&Units=SI

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