1,1-Dimethoxy-3-methylbutane

Inchi: InChI=1S/C7H16O2/c1-6(2)5-7(8-3)9-4/h6-7H,5H2,1-4H3
InchiKey: PLMBSQKUMOJZNE-UHFFFAOYSA-N
Formula: C7H16O2
SMILES: COC(CC(C)C)OC
Mol. weight [g/mol]: 132.20
CAS: 57094-35-6

Physical Properties

Property code	Value	Unit	Source
gf	-206.82	kJ/mol	Joback Method
hf	-462.81	kJ/mol	Joback Method
hfus	9.22	kJ/mol	Joback Method
hvap	35.22	kJ/mol	Joback Method
log10ws	-1.29		Crippen Method
logp	1.651		Crippen Method
mcvol	121.230	ml/mol	McGowan Method
pc	2746.90	kPa	Joback Method
tb	403.52	K	Joback Method
tc	575.91	K	Joback Method
tf	183.11	K	Joback Method
vc	0.452	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	242.27	J/mol×K	403.52	Joback Method
cpg	298.81	J/mol×K	547.18	Joback Method
cpg	288.15	J/mol×K	518.45	Joback Method
cpg	277.17	J/mol×K	489.72	Joback Method
cpg	265.86	J/mol×K	460.98	Joback Method
cpg	254.22	J/mol×K	432.25	Joback Method
cpg	309.12	J/mol×K	575.91	Joback Method
dvisc	0.0001850	Pa×s	403.52	Joback Method
dvisc	0.0002547	Pa×s	366.78	Joback Method

dvisc	0.0003767	Pa×s	330.05	Joback Method
dvisc	0.0006145	Pa×s	293.31	Joback Method
dvisc	0.0011530	Pa×s	256.58	Joback Method
dvisc	0.0026699	Pa×s	219.84	Joback Method
dvisc	0.0086595	Pa×s	183.11	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C57094356&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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

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