1,1,1,2-Tetramethoxyethane

Inchi: InChI=1S/C6H14O4/c1-7-5-6(8-2,9-3)10-4/h5H2,1-4H3
InchiKey: VPZFYLQMPOIPKH-UHFFFAOYSA-N
Formula: C6H14O4
SMILES: COCC(OC)(OC)OC
Mol. weight [g/mol]: 150.17
CAS: 34359-77-8

Physical Properties

Property code	Value	Unit	Source
gf	-417.52	kJ/mol	Joback Method
hf	-704.80	kJ/mol	Joback Method
hfus	8.63	kJ/mol	Joback Method
hvap	47.20 ± 4.20	kJ/mol	NIST Webbook
log10ws	0.21		Crippen Method
logp	0.226		Crippen Method
mcvol	118.880	ml/mol	McGowan Method
pc	2944.08	kPa	Joback Method
tb	423.13	K	Joback Method
tc	599.57	K	Joback Method
tf	248.72	K	Joback Method
vc	0.432	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	252.01	J/mol×K	423.13	Joback Method
cpg	262.89	J/mol×K	452.54	Joback Method
cpg	273.52	J/mol×K	481.94	Joback Method
cpg	283.88	J/mol×K	511.35	Joback Method
cpg	293.95	J/mol×K	540.76	Joback Method
cpg	303.73	J/mol×K	570.17	Joback Method
cpg	313.20	J/mol×K	599.57	Joback Method
dvisc	0.0023532	Pa×s	248.72	Joback Method
dvisc	0.0011982	Pa×s	277.79	Joback Method

dvisc	0.0006933	Pa×s	306.86	Joback Method
dvisc	0.0004410	Pa×s	335.93	Joback Method
dvisc	0.0003015	Pa×s	364.99	Joback Method
dvisc	0.0002180	Pa×s	394.06	Joback Method
dvisc	0.0001648	Pa×s	423.13	Joback Method

Sources

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=C34359778&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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