cis 1,2-Dimethoxyethylene

Inchi: InChI=1S/C4H8O2/c1-5-3-4-6-2/h3-4H,1-2H3/b4-3-
InchiKey: SJQBHNHASPQACB-ARJAWSKDSA-N
Formula: C4H8O2
SMILES: COC=COC
Mol. weight [g/mol]: 88.11
CAS: 7062-96-6

Physical Properties

Property code	Value	Unit	Source
gf	-146.98	kJ/mol	Joback Method
hf	-273.11	kJ/mol	Joback Method
hfus	8.69	kJ/mol	Joback Method
hvap	29.28	kJ/mol	Joback Method
log10ws	-0.52		Crippen Method
logp	0.750		Crippen Method
mcvol	74.660	ml/mol	McGowan Method
pc	3985.56	kPa	Joback Method
tb	339.92	K	Joback Method
tc	514.36	K	Joback Method
tf	174.22	K	Joback Method
vc	0.276	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	122.94	J/mol×K	339.92	Joback Method
cpg	129.58	J/mol×K	368.99	Joback Method
cpg	136.07	J/mol×K	398.07	Joback Method
cpg	142.42	J/mol×K	427.14	Joback Method
cpg	148.62	J/mol×K	456.21	Joback Method
cpg	154.67	J/mol×K	485.29	Joback Method
cpg	160.55	J/mol×K	514.36	Joback Method
dvisc	0.0020122	Pa×s	174.22	Joback Method
dvisc	0.0009866	Pa×s	201.84	Joback Method

dvisc	0.0005743	Pa×s	229.45	Joback Method
dvisc	0.0003755	Pa×s	257.07	Joback Method
dvisc	0.0002666	Pa×s	284.69	Joback Method
dvisc	0.0002011	Pa×s	312.30	Joback Method
dvisc	0.0001588	Pa×s	339.92	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=C7062966&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