Ethane, 1,1,2,2-tetramethoxy-

Other names:	1,1,2,2-Tetramethoxyethane
	Glyoxal bis(dimethyl acetal)
	Tetramethoxy-ethane
Inchi:	InChI=1S/C6H14O4/c1-7-5(8-2)6(9-3)10-4/h5-6H,1-4H3
InchiKey:	IVXUXKRSTIMKOE-UHFFFAOYSA-N
Formula:	C6H14O4
SMILES:	COC(OC)C(OC)OC
Mol. weight [g/mol]:	150.17
CAS:	2517-44-4

Physical Properties

Property code	Value	Unit	Source
gf	-425.24	kJ/mol	Joback Method
hf	-706.61	kJ/mol	Joback Method
hfus	9.00	kJ/mol	Joback Method
hvap	37.81	kJ/mol	Joback Method
log10ws	0.10		Crippen Method
logp	0.224		Crippen Method
mcvol	118.880	ml/mol	McGowan Method
pc	2934.52	kPa	Joback Method
tb	425.48	K	Joback Method
tc	598.88	K	Joback Method
tf	216.30	K	Joback Method
vc	0.431	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	249.82	J/mol×K	425.48	Joback Method
cpg	260.19	J/mol×K	454.38	Joback Method
cpg	270.41	J/mol×K	483.28	Joback Method
cpg	280.48	J/mol×K	512.18	Joback Method
cpg	290.36	J/mol×K	541.08	Joback Method
cpg	300.03	J/mol×K	569.98	Joback Method

cpg	309.48	J/mol×K	598.88	Joback Method
dvisc	0.0037667	Pa×s	216.30	Joback Method
dvisc	0.0014955	Pa×s	251.16	Joback Method
dvisc	0.0007437	Pa×s	286.03	Joback Method
dvisc	0.0004305	Pa×s	320.89	Joback Method
dvisc	0.0002774	Pa×s	355.75	Joback Method
dvisc	0.0001933	Pa×s	390.62	Joback Method
dvisc	0.0001429	Pa×s	425.48	Joback Method
hvapt	42.90	kJ/mol	391.50	NIST Webbook

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C2517444&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

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
hvapt: Enthalpy of vaporization at a given temperature
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