2-Methyl-4-methylene-1,3-dioxolane

Inchi: InChI=1S/C5H8O2/c1-4-3-6-5(2)7-4/h5H,1,3H2,2H3
InchiKey: CDDPSIWBOGNOBA-UHFFFAOYSA-N
Formula: C5H8O2
SMILES: C=C1COC(C)O1
Mol. weight [g/mol]: 100.12
CAS: 14738-99-9

Physical Properties

Property code	Value	Unit	Source
chl	-2690.70 ± 5.30	kJ/mol	NIST Webbook
gf	-91.39	kJ/mol	Joback Method
hf	-383.00 ± 6.50	kJ/mol	NIST Webbook
hfl	-420.20 ± 5.30	kJ/mol	NIST Webbook
hfus	17.44	kJ/mol	Joback Method
hvap	37.20	kJ/mol	NIST Webbook
hvap	37.00 ± 1.00	kJ/mol	NIST Webbook
log10ws	-0.94		Crippen Method
logp	0.893		Crippen Method
mcvol	77.890	ml/mol	McGowan Method
pc	4345.39	kPa	Joback Method
tb	382.14	K	Joback Method
tc	582.53	K	Joback Method
tf	223.83	K	Joback Method
vc	0.282	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	145.91	J/mol×K	382.14	Joback Method
cpg	192.05	J/mol×K	549.13	Joback Method
cpg	183.70	J/mol×K	515.73	Joback Method
cpg	174.91	J/mol×K	482.33	Joback Method
cpg	165.69	J/mol×K	448.94	Joback Method
cpg	156.03	J/mol×K	415.54	Joback Method

cpg	199.99	J/mol×K	582.53	Joback Method
dvisc	0.0004118	Pa×s	382.14	Joback Method
dvisc	0.0004994	Pa×s	355.75	Joback Method
dvisc	0.0006246	Pa×s	329.37	Joback Method
dvisc	0.0008122	Pa×s	302.99	Joback Method
dvisc	0.0011105	Pa×s	276.60	Joback Method
dvisc	0.0016218	Pa×s	250.22	Joback Method
dvisc	0.0025897	Pa×s	223.83	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=C14738999&Units=SI

Legend

chl: Standard liquid enthalpy of combustion
cpg: Ideal gas heat capacity
dvisc: Dynamic viscosity
gf: Standard Gibbs free energy of formation
hf: Enthalpy of formation at standard conditions
hfl: Liquid phase 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