1,3-Dioxolane-2-methanol, 2,4-dimethyl-

Other names: 2,4-Dimethyl-1,3-dioxolane-2-methanol
2,5-Dimethyl-2-(hydroxymethyl)-1,3-dioxolane
Inchi: InChI=1S/C6H12O3/c1-5-3-8-6(2,4-7)9-5/h5,7H,3-4H2,1-2H3
InchiKey: YYMZBDSPZJJXJM-UHFFFAOYSA-N
Formula: C6H12O3
SMILES: CC1COC(C)(CO)O1
Mol. weight [g/mol]: 132.16
CAS: 53951-43-2

Physical Properties

Property code	Value	Unit	Source
gf	-286.07	kJ/mol	Joback Method
hf	-528.02	kJ/mol	Joback Method
hfus	20.05	kJ/mol	Joback Method
hvap	53.45	kJ/mol	Joback Method
log10ws	-0.39		Crippen Method
logp	0.130		Crippen Method
mcvol	102.150	ml/mol	McGowan Method
pc	4283.05	kPa	Joback Method
tb	493.61	K	Joback Method
tc	688.06	K	Joback Method
tf	301.90	K	Joback Method
vc	0.370	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	247.77	J/mol×K	493.61	Joback Method
cpg	259.23	J/mol×K	526.02	Joback Method
cpg	269.97	J/mol×K	558.43	Joback Method
cpg	280.08	J/mol×K	590.84	Joback Method
cpg	289.63	J/mol×K	623.24	Joback Method
cpg	298.69	J/mol×K	655.65	Joback Method
cpg	307.33	J/mol×K	688.06	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C53951432&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
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