cis-2-Methyl-4-tert-butyl-1,3-dioxolane

Inchi: InChI=1S/C8H16O2/c1-6-9-5-7(10-6)8(2,3)4/h6-7H,5H2,1-4H3
InchiKey: CVYCFVLBJTXEBR-UHFFFAOYSA-N
Formula: C8H16O2
SMILES: CC1OCC(C(C)(C)C)O1
Mol. weight [g/mol]: 144.21
CAS: 26563-82-6

Physical Properties

Property code	Value	Unit	Source
gf	-124.08	kJ/mol	Joback Method
hf	-441.06	kJ/mol	Joback Method
hfus	20.03	kJ/mol	Joback Method
hvap	41.07	kJ/mol	Joback Method
log10ws	-1.72		Crippen Method
logp	1.794		Crippen Method
mcvol	124.460	ml/mol	McGowan Method
pc	2960.12	kPa	Joback Method
tb	443.72	K	Joback Method
tc	649.39	K	Joback Method
tf	242.14	K	Joback Method
vc	0.455	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	279.59	J/mol×K	443.72	Joback Method
cpg	296.93	J/mol×K	478.00	Joback Method
cpg	313.31	J/mol×K	512.28	Joback Method
cpg	328.76	J/mol×K	546.55	Joback Method
cpg	343.30	J/mol×K	580.83	Joback Method
cpg	356.99	J/mol×K	615.11	Joback Method
cpg	369.85	J/mol×K	649.39	Joback Method
dvisc	0.0059028	Pa×s	242.14	Joback Method
dvisc	0.0028872	Pa×s	275.74	Joback Method

dvisc	0.0016495	Pa×s	309.33	Joback Method
dvisc	0.0010517	Pa×s	342.93	Joback Method
dvisc	0.0007266	Pa×s	376.53	Joback Method
dvisc	0.0005333	Pa×s	410.12	Joback Method
dvisc	0.0004102	Pa×s	443.72	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=C26563826&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

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