1,3-Dioxolane, 2-methyl-2-(2-methylpropyl)-

Other names: 1,3-Dioxolane, 2-isobutyl-2-methyl-
2-Methyl-2-(2-methylpropyl)-1,3-dioxolane
Inchi: InChI=1S/C8H16O2/c1-7(2)6-8(3)9-4-5-10-8/h7H,4-6H2,1-3H3
InchiKey: BVRDPBHMGKJNEJ-UHFFFAOYSA-N
Formula: C8H16O2
SMILES: CC(C)CC1(C)OCCO1
Mol. weight [g/mol]: 144.21
CAS: 2035-08-7

Physical Properties

Property code	Value	Unit	Source
gf	-127.14	kJ/mol	Joback Method
hf	-402.01	kJ/mol	Joback Method
hfus	16.55	kJ/mol	Joback Method
hvap	41.14	kJ/mol	Joback Method
log10ws	-1.61		Crippen Method
logp	1.796		Crippen Method
mcvol	124.460	ml/mol	McGowan Method
pc	3188.33	kPa	Joback Method
rinpol	851.00		NIST Webbook
rinpol	851.00		NIST Webbook
tb	451.42	K	Joback Method
tc	657.65	K	Joback Method
tf	252.86	K	Joback Method
vc	0.459	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	277.91	J/mol×K	451.42	Joback Method
cpg	294.14	J/mol×K	485.79	Joback Method
cpg	309.29	J/mol×K	520.16	Joback Method
cpg	323.46	J/mol×K	554.54	Joback Method
cpg	336.73	J/mol×K	588.91	Joback Method

cpg	349.22	J/mol×K	623.28	Joback Method
cpg	361.02	J/mol×K	657.65	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=C2035087&Units=SI

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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume