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

Other names: 1,3-Dioxolane, 2-isopropyl-2-methyl-
2-Methyl-2-isopropyl-1,3-dioxolane
Inchi: InChI=1S/C7H14O2/c1-6(2)7(3)8-4-5-9-7/h6H,4-5H2,1-3H3
InchiKey: IGZQZZODNMBJLU-UHFFFAOYSA-N
Formula: C7H14O2
SMILES: CC(C)C1(C)OCCO1
Mol. weight [g/mol]: 130.18
CAS: 4405-16-7

Physical Properties

Property code	Value	Unit	Source
gf	-135.56	kJ/mol	Joback Method
hf	-381.37	kJ/mol	Joback Method
hfus	13.96	kJ/mol	Joback Method
hvap	43.90 ± 0.20	kJ/mol	NIST Webbook
hvap	44.60 ± 0.20	kJ/mol	NIST Webbook
log10ws	-1.19		Crippen Method
logp	1.405		Crippen Method
mcvol	110.370	ml/mol	McGowan Method
pc	3564.27	kPa	Joback Method
tb	428.54	K	Joback Method
tc	637.32	K	Joback Method
tf	241.59	K	Joback Method
vc	0.403	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	235.71	J/mol×K	428.54	Joback Method
cpg	251.05	J/mol×K	463.34	Joback Method
cpg	265.32	J/mol×K	498.13	Joback Method
cpg	278.59	J/mol×K	532.93	Joback Method
cpg	290.98	J/mol×K	567.73	Joback Method
cpg	302.59	J/mol×K	602.53	Joback Method

cpg	313.50	J/mol×K	637.32	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C4405167&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