[1,4]Dioxino[2,3-b]-1,4-dioxin, hexahydro-

Other names:	p-Dioxino[2,3-b]-p-dioxin, hexahydro-
	Ethanedial, cyclic 1,2:1,2-bis(1,2-ethanediyl acetal)
	Naphthodioxane
	1,4,5,8-Naphthodioxane
	1,4,5,8-Tetraoxaperhydronaphthalene
	1,4,5,8-Tetraoxa-decalin
	1,4,5,8-Tetraoxabicyclo[4.4.0]decane
	Hexahydro[1,4]dioxino[2,3-b][1,4]dioxine
Inchi:	InChI=1S/C6H10O4/c1-2-8-6-5(7-1)9-3-4-10-6/h5-6H,1-4H2
InchiKey:	XIEQDDLBXUOZOD-UHFFFAOYSA-N
Formula:	C6H10O4
SMILES:	C1COC2OCCOC2O1
Mol. weight [g/mol]:	146.14
CAS:	4362-05-4

Physical Properties

Property code	Value	Unit	Source
gf	-271.74	kJ/mol	Joback Method
hf	-574.21	kJ/mol	Joback Method
hfus	31.08	kJ/mol	Joback Method
hvap	47.50	kJ/mol	Joback Method
ie	9.22	eV	NIST Webbook
ie	8.50	eV	NIST Webbook
log10ws	0.31		Crippen Method
logp	-0.268		Crippen Method
mcvol	97.160	ml/mol	McGowan Method
pc	4627.70	kPa	Joback Method
ripol	1827.00		NIST Webbook
ripol	1827.00		NIST Webbook
tb	475.04	K	Joback Method
tc	705.60	K	Joback Method
tf	285.46	K	Joback Method
vc	0.338	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	235.71	J/mol×K	475.04	Joback Method
cpg	251.30	J/mol×K	513.47	Joback Method
cpg	265.88	J/mol×K	551.89	Joback Method
cpg	279.49	J/mol×K	590.32	Joback Method
cpg	292.17	J/mol×K	628.75	Joback Method
cpg	303.94	J/mol×K	667.17	Joback Method
cpg	314.86	J/mol×K	705.60	Joback Method
dvisc	0.0061087	Pa×s	285.46	Joback Method
dvisc	0.0034886	Pa×s	317.06	Joback Method
dvisc	0.0022053	Pa×s	348.65	Joback Method
dvisc	0.0015044	Pa×s	380.25	Joback Method
dvisc	0.0010883	Pa×s	411.85	Joback Method
dvisc	0.0008245	Pa×s	443.44	Joback Method
dvisc	0.0006481	Pa×s	475.04	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C4362054&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

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
ie: Ionization energy
log10ws: Log10 of Water solubility in mol/l

logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume