1,4-Epoxynaphthalene, 1,4-dihydro-

Other names:	1,4-Dihydro-1,4-epoxynaphthalene
	1,4-Dihydronaphthalene-1,4-oxide
	1,4-Dihydronaphthalene-1,4-endo-oxide
	1,4-Epoxy-1,4-dihydronaphthalene
	7-Oxabenzonorbornadiene
Inchi:	InChI=1S/C10H8O/c1-2-4-8-7(3-1)9-5-6-10(8)11-9/h1-6,9-10H
InchiKey:	JWCGDNHAPBZVHD-UHFFFAOYSA-N
Formula:	C10H8O
SMILES:	C1=CC2OC1c1ccccc12
Mol. weight [g/mol]:	144.17
CAS:	573-57-9

Physical Properties

Property code	Value	Unit	Source
chs	-5140.50	kJ/mol	NIST Webbook
gf	213.54	kJ/mol	Joback Method
hf	52.87	kJ/mol	Joback Method
hfs	62.10 ± 5.80	kJ/mol	NIST Webbook
hfus	22.88	kJ/mol	Joback Method
hvap	45.25	kJ/mol	Joback Method
log10ws	-2.72		Crippen Method
logp	2.369		Crippen Method
mcvol	107.850	ml/mol	McGowan Method
pc	3906.25	kPa	Joback Method
tb	495.18	K	Joback Method
tc	728.70	K	Joback Method
tf	308.13	K	Joback Method
vc	0.416	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	241.44	J/mol×K	495.18	Joback Method
cpg	300.16	J/mol×K	689.78	Joback Method

cpg	290.44	J/mol×K	650.86	Joback Method
cpg	279.83	J/mol×K	611.94	Joback Method
cpg	268.20	J/mol×K	573.02	Joback Method
cpg	255.44	J/mol×K	534.10	Joback Method
cpg	309.10	J/mol×K	728.70	Joback Method
dvisc	0.0010840	Pa×s	495.18	Joback Method
dvisc	0.0011018	Pa×s	464.00	Joback Method
dvisc	0.0011226	Pa×s	432.83	Joback Method
dvisc	0.0011470	Pa×s	401.65	Joback Method
dvisc	0.0011763	Pa×s	370.48	Joback Method
dvisc	0.0012119	Pa×s	339.31	Joback Method
dvisc	0.0012562	Pa×s	308.13	Joback Method

Sources

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=C573579&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

Legend

chs:	Standard solid enthalpy of combustion
cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfs:	Solid phase 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