1,4-Epoxynaphthalene, 1,2,3,4-tetrahydro-

Other names:	1,4-Epoxy-1,2,3,4-tetrahydronaphthalene
	1,2,3,4-Tetrahydronaphthalene 1,4-endoxide
	1,2,3,4-Tetrahydronaphthalene-1,4-endo-oxide
Inchi:	InChI=1S/C10H10O/c1-2-4-8-7(3-1)9-5-6-10(8)11-9/h1-4,9-10H,5-6H2
InchiKey:	SPELXJYTVLDKGB-UHFFFAOYSA-N
Formula:	C10H10O
SMILES:	c1ccc2c(c1)C1CCC2O1
Mol. weight [g/mol]:	146.19
CAS:	35185-96-7

Physical Properties

Property code	Value	Unit	Source
gf	183.58	kJ/mol	Joback Method
hf	-4.91	kJ/mol	Joback Method
hfus	21.66	kJ/mol	Joback Method
hvap	44.96	kJ/mol	Joback Method
log10ws	-2.87		Crippen Method
logp	2.593		Crippen Method
mcvol	112.150	ml/mol	McGowan Method
pc	3736.23	kPa	Joback Method
tb	496.02	K	Joback Method
tc	727.10	K	Joback Method
tf	307.37	K	Joback Method
vc	0.430	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	258.11	J/mol×K	496.02	Joback Method
cpg	273.47	J/mol×K	534.53	Joback Method
cpg	287.55	J/mol×K	573.05	Joback Method
cpg	300.47	J/mol×K	611.56	Joback Method
cpg	312.33	J/mol×K	650.07	Joback Method
cpg	323.25	J/mol×K	688.59	Joback Method

cpg	333.35	J/mol×K	727.10	Joback Method
dvisc	0.0014369	Pa×s	307.37	Joback Method
dvisc	0.0013461	Pa×s	338.81	Joback Method
dvisc	0.0012752	Pa×s	370.25	Joback Method
dvisc	0.0012183	Pa×s	401.69	Joback Method
dvisc	0.0011716	Pa×s	433.14	Joback Method
dvisc	0.0011327	Pa×s	464.58	Joback Method
dvisc	0.0010998	Pa×s	496.02	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	327.20	K	0.50	NIST Webbook

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=C35185967&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

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

tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume