1,1'-Binaphthalene, 3,3',4,4'-tetrahydro-

Other names: 1,1'-Binaphthyl, 3,3',4,4'-tetrahydro-
3,3',4,4'-Tetrahydro-1,1'-binaphthyl
Inchi: InChI=1S/C20H18/c1-3-11-17-15(7-1)9-5-13-19(17)20-14-6-10-16-8-2-4-12-18(16)20/h1-
InchiKey: QZIBLSYKUOHZFG-UHFFFAOYSA-N
Formula: C20H18
SMILES: C1=C(C2=CCCc3ccccc32)c2ccccc2CC1
Mol. weight [g/mol]: 258.36
CAS: 5405-96-9

Physical Properties

Property code	Value	Unit	Source
gf	476.46	kJ/mol	Joback Method
hf	260.57	kJ/mol	Joback Method
hfus	26.45	kJ/mol	Joback Method
hvap	68.69	kJ/mol	Joback Method
log10ws	-6.16		Crippen Method
logp	5.046		Crippen Method
mcvol	214.820	ml/mol	McGowan Method
pc	2293.71	kPa	Joback Method
rinpol	2432.00		NIST Webbook
rinpol	2432.00		NIST Webbook
tb	759.96	K	Joback Method
tc	1025.11	K	Joback Method
tf	456.92	K	Joback Method
vc	0.811	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	604.74	J/mol×K	759.96	Joback Method
cpg	683.38	J/mol×K	980.92	Joback Method
cpg	669.75	J/mol×K	936.73	Joback Method
cpg	655.27	J/mol×K	892.53	Joback Method
cpg	639.74	J/mol×K	848.34	Joback Method

cpg	622.96	J/mol×K	804.15	Joback Method
cpg	696.35	J/mol×K	1025.11	Joback Method
dvisc	0.0003099	Pa×s	759.96	Joback Method
dvisc	0.0003653	Pa×s	709.45	Joback Method
dvisc	0.0004415	Pa×s	658.95	Joback Method
dvisc	0.0005507	Pa×s	608.44	Joback Method
dvisc	0.0007150	Pa×s	557.93	Joback Method
dvisc	0.0009777	Pa×s	507.43	Joback Method
dvisc	0.0014328	Pa×s	456.92	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=C5405969&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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume