1,1'-Binaphthalene, 2,2'-dimethyl-

Other names: 1,1'-Binaphthyl, 2,2'-dimethyl-
2,2'-Dimethyl-1,1'-binaphthyl
Inchi: InChI=1S/C22H18/c1-15-11-13-17-7-3-5-9-19(17)21(15)22-16(2)12-14-18-8-4-6-10-20(18
InchiKey: KDHFKMDVFWYSPT-UHFFFAOYSA-N
Formula: C22H18
SMILES: Cc1ccc2ccccc2c1-c1c(C)ccc2ccccc12
Mol. weight [g/mol]: 282.38
CAS: 32834-84-7

Physical Properties

Property code	Value	Unit	Source
gf	533.96	kJ/mol	Joback Method
hf	311.91	kJ/mol	Joback Method
hfus	33.30	kJ/mol	Joback Method
hvap	75.05	kJ/mol	Joback Method
ie	8.20	eV	NIST Webbook
ie	8.20 ± 0.05	eV	NIST Webbook
log10ws	-8.63		Crippen Method
logp	6.277		Crippen Method
mcvol	234.400	ml/mol	McGowan Method
pc	1996.55	kPa	Joback Method
tb	814.00	K	Joback Method
tc	1073.19	K	Joback Method
tf	506.02	K	Joback Method
vc	0.895	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	659.93	J/mol×K	814.00	Joback Method
cpg	732.48	J/mol×K	1029.99	Joback Method
cpg	719.54	J/mol×K	986.80	Joback Method
cpg	705.99	J/mol×K	943.60	Joback Method
cpg	691.65	J/mol×K	900.40	Joback Method

cpg	676.36	J/mol×K	857.20	Joback Method
cpg	745.00	J/mol×K	1073.19	Joback Method
dvisc	0.0003037	Pa×s	814.00	Joback Method
dvisc	0.0003481	Pa×s	762.67	Joback Method
dvisc	0.0004068	Pa×s	711.34	Joback Method
dvisc	0.0004872	Pa×s	660.01	Joback Method
dvisc	0.0006014	Pa×s	608.68	Joback Method
dvisc	0.0007718	Pa×s	557.35	Joback Method
dvisc	0.0010419	Pa×s	506.02	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C32834847&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume