2,2'-Binaphthalene, 1,1',2,2',3,3',4,4'-octahydro-

Other names: 2,2'-Binaphthyl, 1,1',2,2',3,3',4,4'-octahydro-
2,2'-Bitetralin
Inchi: InChI=1S/C20H22/c1-3-7-17-13-19(11-9-15(17)5-1)20-12-10-16-6-2-4-8-18(16)14-20/h1-
InchiKey: BXELUHKITUQVQG-UHFFFAOYSA-N
Formula: C20H22
SMILES: c1ccc2c(c1)CCC(C1CCc3ccccc3C1)C2
Mol. weight [g/mol]: 262.39
CAS: 27426-98-8

Physical Properties

Property code	Value	Unit	Source
gf	420.38	kJ/mol	Joback Method
hf	127.27	kJ/mol	Joback Method
hfus	26.93	kJ/mol	Joback Method
hvap	66.16	kJ/mol	Joback Method
log10ws	-5.64		Crippen Method
logp	4.597		Crippen Method
mcvol	223.420	ml/mol	McGowan Method
pc	2073.65	kPa	Joback Method
tb	742.34	K	Joback Method
tc	1001.79	K	Joback Method
tf	421.88	K	Joback Method
vc	0.838	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	663.89	J/mol×K	742.34	Joback Method
cpg	771.64	J/mol×K	1001.79	Joback Method
cpg	756.94	J/mol×K	958.55	Joback Method
cpg	741.18	J/mol×K	915.30	Joback Method
cpg	724.17	J/mol×K	872.06	Joback Method
cpg	705.74	J/mol×K	828.82	Joback Method
cpg	685.71	J/mol×K	785.58	Joback Method

cpl	379.90	J/mol×K	298.15	NIST Webbook
dvisc	0.0004122	Pa×s	742.34	Joback Method
dvisc	0.0004847	Pa×s	688.93	Joback Method
dvisc	0.0005859	Pa×s	635.52	Joback Method
dvisc	0.0007331	Pa×s	582.11	Joback Method
dvisc	0.0009599	Pa×s	528.70	Joback Method
dvisc	0.0013353	Pa×s	475.29	Joback Method
dvisc	0.0020194	Pa×s	421.88	Joback Method

Sources

Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws
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=C27426988&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

cpg: Ideal gas heat capacity
cpl: Liquid phase 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
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume

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