Naphthalene, 1,2,3,4-tetrahydro-2-(phenylmethyl)-

Other names: Naphthalene, 2-benzyl-1,2,3,4-tetrahydro-
2-(phenylmethyl)-1,2,3,4-tetrahydronaphthalene
Inchi: InChI=1S/C17H18/c1-2-6-14(7-3-1)12-15-10-11-16-8-4-5-9-17(16)13-15/h1-9,15H,10-13
InchiKey: AKGFRVNFTJTZLR-UHFFFAOYSA-N
Formula: C17H18
SMILES: c1ccc(CC2CCc3ccccc3C2)cc1
Mol. weight [g/mol]: 222.32
CAS: 27019-09-6

Physical Properties

Property code	Value	Unit	Source
gf	356.10	kJ/mol	Joback Method
hf	134.02	kJ/mol	Joback Method
hfus	23.51	kJ/mol	Joback Method
hvap	58.73	kJ/mol	Joback Method
log10ws	-4.76		Crippen Method
logp	4.034		Crippen Method
mcvol	192.010	ml/mol	McGowan Method
pc	2384.19	kPa	Joback Method
tb	657.71	K	Joback Method
tc	908.48	K	Joback Method
tf	361.13	K	Joback Method
vc	0.721	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	511.89	J/mol×K	657.71	Joback Method
cpg	532.22	J/mol×K	699.51	Joback Method
cpg	550.91	J/mol×K	741.30	Joback Method
cpg	568.09	J/mol×K	783.10	Joback Method
cpg	583.88	J/mol×K	824.89	Joback Method
cpg	598.42	J/mol×K	866.69	Joback Method
cpg	611.82	J/mol×K	908.48	Joback Method

dvisc	0.0019811	Pa×s	361.13	Joback Method
dvisc	0.0011528	Pa×s	410.56	Joback Method
dvisc	0.0007535	Pa×s	459.99	Joback Method
dvisc	0.0005349	Pa×s	509.42	Joback Method
dvisc	0.0004035	Pa×s	558.85	Joback Method
dvisc	0.0003186	Pa×s	608.28	Joback Method
dvisc	0.0002607	Pa×s	657.71	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C27019096&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
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