Naphthalene, 1,2,3,4-tetrahydro-6-(phenylmethyl)-

Other names: Naphthalene, 6-benzyl-1,2,3,4-tetrahydro-
6-(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/h1-3,6-7,10-11,1
InchiKey: HUWLTXHUXZFUHP-UHFFFAOYSA-N
Formula: C17H18
SMILES: c1ccc(Cc2ccc3c(c2)CCCC3)cc1
Mol. weight [g/mol]: 222.32
CAS: 35310-85-1

Physical Properties

Property code	Value	Unit	Source
gf	354.18	kJ/mol	Joback Method
hf	142.89	kJ/mol	Joback Method
hfus	22.05	kJ/mol	Joback Method
hvap	59.71	kJ/mol	Joback Method
log10ws	-5.07		Crippen Method
logp	4.156		Crippen Method
mcvol	192.010	ml/mol	McGowan Method
pc	2426.65	kPa	Joback Method
tb	667.36	K	Joback Method
tc	918.82	K	Joback Method
tf	377.89	K	Joback Method
vc	0.722	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	509.23	J/mol×K	667.36	Joback Method
cpg	528.71	J/mol×K	709.27	Joback Method
cpg	546.64	J/mol×K	751.18	Joback Method
cpg	563.14	J/mol×K	793.09	Joback Method
cpg	578.35	J/mol×K	835.00	Joback Method
cpg	592.39	J/mol×K	876.91	Joback Method
cpg	605.39	J/mol×K	918.82	Joback Method

dvisc	0.0017665	Pa×s	377.89	Joback Method
dvisc	0.0010238	Pa×s	426.13	Joback Method
dvisc	0.0006630	Pa×s	474.38	Joback Method
dvisc	0.0004652	Pa×s	522.62	Joback Method
dvisc	0.0003465	Pa×s	570.87	Joback Method
dvisc	0.0002703	Pa×s	619.12	Joback Method
dvisc	0.0002185	Pa×s	667.36	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C35310851&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