Naphthalene, 1,2,3,4-tetrahydro-6-pentyl

Inchi: InChI=1S/C15H22/c1-2-3-4-7-13-10-11-14-8-5-6-9-15(14)12-13/h10-12H,2-9H2,1H3
InchiKey: HAIPLRGTZHSMBH-UHFFFAOYSA-N
Formula: C15H22
SMILES: CCCCCc1ccc2c(c1)CCCC2
Mol. weight [g/mol]: 202.34

Physical Properties

Property code	Value	Unit	Source
gf	224.93	kJ/mol	Joback Method
hf	-52.36	kJ/mol	Joback Method
hfus	22.83	kJ/mol	Joback Method
hvap	52.98	kJ/mol	Joback Method
log10ws	-5.03		Crippen Method
logp	4.298		Crippen Method
mcvol	187.590	ml/mol	McGowan Method
pc	2125.60	kPa	Joback Method
rinpol	1634.00		NIST Webbook
tb	594.92	K	Joback Method
tc	808.96	K	Joback Method
tf	328.93	K	Joback Method
vc	0.718	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	480.34	J/mol×K	594.92	Joback Method
cpg	499.75	J/mol×K	630.59	Joback Method
cpg	517.98	J/mol×K	666.27	Joback Method
cpg	535.10	J/mol×K	701.94	Joback Method
cpg	551.17	J/mol×K	737.62	Joback Method
cpg	566.26	J/mol×K	773.29	Joback Method
cpg	580.43	J/mol×K	808.96	Joback Method
dvisc	0.0022251	Pa×s	328.93	Joback Method
dvisc	0.0012491	Pa×s	373.26	Joback Method

dvisc	0.0007927	Pa×s	417.59	Joback Method
dvisc	0.0005489	Pa×s	461.92	Joback Method
dvisc	0.0004054	Pa×s	506.26	Joback Method
dvisc	0.0003144	Pa×s	550.59	Joback Method
dvisc	0.0002532	Pa×s	594.92	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R71242&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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

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