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

Other names:	6-n-Butyl-(1,2,3,4-tetrahydronaphthalene)
	6-n-Butyltetralin
	6-Butyltetralin
	6-Butyl-1,2,3,4-tetrahydronaphthalene
	Naphthalene, 1,2,3,4-tetrahydro-6-butyl
	Tetraline, 6-butyl
Inchi:	InChI=1S/C14H20/c1-2-3-6-12-9-10-13-7-4-5-8-14(13)11-12/h9-11H,2-8H2,1H3
InchiKey:	OOPPKRUACFCVFK-UHFFFAOYSA-N
Formula:	C14H20
SMILES:	CCCCc1ccc2c(c1)CCCC2
Mol. weight [g/mol]:	188.31
CAS:	30654-45-6

Physical Properties

Property code	Value	Unit	Source
gf	216.51	kJ/mol	Joback Method
hf	-31.72	kJ/mol	Joback Method
hfus	20.24	kJ/mol	Joback Method
hvap	50.75	kJ/mol	Joback Method
log10ws	-4.61		Crippen Method
logp	3.908		Crippen Method
mcvol	173.500	ml/mol	McGowan Method
pc	2327.03	kPa	Joback Method
rinpol	1538.00		NIST Webbook
rinpol	1536.00		NIST Webbook
tb	572.04	K	Joback Method
tc	789.82	K	Joback Method
tf	317.66	K	Joback Method
vc	0.661	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	429.38	J/mol×K	572.04	Joback Method

cpg	513.14	J/mol×K	753.52	Joback Method
cpg	498.48	J/mol×K	717.22	Joback Method
cpg	482.84	J/mol×K	680.93	Joback Method
cpg	466.15	J/mol×K	644.63	Joback Method
cpg	448.35	J/mol×K	608.34	Joback Method
cpg	526.89	J/mol×K	789.82	Joback Method
dvisc	0.0002716	Pa×s	572.04	Joback Method
dvisc	0.0003352	Pa×s	529.64	Joback Method
dvisc	0.0004292	Pa×s	487.25	Joback Method
dvisc	0.0005761	Pa×s	444.85	Joback Method
dvisc	0.0008228	Pa×s	402.45	Joback Method
dvisc	0.0012779	Pa×s	360.06	Joback Method
dvisc	0.0022322	Pa×s	317.66	Joback Method

Sources

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
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C30654456&Units=SI

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