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

Other names: 6-tert-Butyltetralin
6-tert-Butyl-(1,2,3,4-tetrahydronaphthalene)
Inchi: InChI=1S/C14H20/c1-14(2,3)13-9-8-11-6-4-5-7-12(11)10-13/h8-10H,4-7H2,1-3H3
InchiKey: XCYVLZXWLBLNID-UHFFFAOYSA-N
Formula: C14H20
SMILES: CC(C)(C)c1ccc2c(c1)CCCC2
Mol. weight [g/mol]: 188.31
CAS: 42044-26-8

Physical Properties

Property code	Value	Unit	Source
gf	219.35	kJ/mol	Joback Method
hf	-40.47	kJ/mol	Joback Method
hfus	12.83	kJ/mol	Joback Method
hvap	49.46	kJ/mol	Joback Method
log10ws	-4.29		Crippen Method
logp	3.863		Crippen Method
mcvol	173.500	ml/mol	McGowan Method
pc	2370.28	kPa	Joback Method
tb	568.81	K	Joback Method
tc	800.54	K	Joback Method
tf	320.08	K	Joback Method
vc	0.650	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	432.38	J/mol×K	568.81	Joback Method
cpg	452.59	J/mol×K	607.43	Joback Method
cpg	471.33	J/mol×K	646.05	Joback Method
cpg	488.73	J/mol×K	684.68	Joback Method
cpg	504.87	J/mol×K	723.30	Joback Method
cpg	519.88	J/mol×K	761.92	Joback Method
cpg	533.84	J/mol×K	800.54	Joback Method

dvisc	0.0026770	Pa×s	320.08	Joback Method
dvisc	0.0014325	Pa×s	361.54	Joback Method
dvisc	0.0008718	Pa×s	402.99	Joback Method
dvisc	0.0005821	Pa×s	444.44	Joback Method
dvisc	0.0004164	Pa×s	485.90	Joback Method
dvisc	0.0003139	Pa×s	527.36	Joback Method
dvisc	0.0002467	Pa×s	568.81	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C42044268&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