Naphthalene, 1,2,3,4-tetrahydro-5,6,7,8-tetramethyl-

Other names: 5,6,7,8-Tetramethyl-1,2,3,4-tetrahydronaphthalene
Inchi: InChI=1S/C14H20/c1-9-10(2)12(4)14-8-6-5-7-13(14)11(9)3/h5-8H2,1-4H3
InchiKey: OPDGWSYNXPRREB-UHFFFAOYSA-N
Formula: C14H20
SMILES: Cc1c(C)c(C)c2c(c1C)CCCC2
Mol. weight [g/mol]: 188.31
CAS: 19063-11-7

Physical Properties

Property code	Value	Unit	Source
gf	187.62	kJ/mol	Joback Method
hf	-66.13	kJ/mol	Joback Method
hfus	19.08	kJ/mol	Joback Method
hvap	52.74	kJ/mol	Joback Method
log10ws	-4.87		Crippen Method
logp	3.799		Crippen Method
mcvol	173.500	ml/mol	McGowan Method
pc	2229.20	kPa	Joback Method
rinpol	1602.00		NIST Webbook
tb	586.98	K	Joback Method
tc	807.82	K	Joback Method
tf	355.22	K	Joback Method
vc	0.661	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	429.68	J/mol×K	586.98	Joback Method
cpg	447.78	J/mol×K	623.79	Joback Method
cpg	464.87	J/mol×K	660.59	Joback Method
cpg	480.99	J/mol×K	697.40	Joback Method
cpg	496.19	J/mol×K	734.20	Joback Method
cpg	510.51	J/mol×K	771.01	Joback Method
cpg	524.00	J/mol×K	807.82	Joback Method

dvisc	0.0011632	Pa×s	355.22	Joback Method
dvisc	0.0008011	Pa×s	393.85	Joback Method
dvisc	0.0005897	Pa×s	432.47	Joback Method
dvisc	0.0004564	Pa×s	471.10	Joback Method
dvisc	0.0003673	Pa×s	509.73	Joback Method
dvisc	0.0003047	Pa×s	548.35	Joback Method
dvisc	0.0002591	Pa×s	586.98	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=C19063117&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