Naphthalene, 1,2,3,4-tetrahydro-1,1-dimethyl-

Other names: 1,1-Dimethyltetralin
1,1-Dimethyl(1,2,3,4-tetrahydronaphthalene)
Inchi: InChI=1S/C12H16/c1-12(2)9-5-7-10-6-3-4-8-11(10)12/h3-4,6,8H,5,7,9H2,1-2H3
InchiKey: ABIPNDAVRBMCHV-UHFFFAOYSA-N
Formula: C12H16
SMILES: CC1(C)CCCc2ccccc21
Mol. weight [g/mol]: 160.26
CAS: 1985-59-7

Physical Properties

Property code	Value	Unit	Source
gf	196.10	kJ/mol	Joback Method
hf	15.93	kJ/mol	Joback Method
hfus	10.22	kJ/mol	Joback Method
hvap	44.18	kJ/mol	Joback Method
log10ws	-3.48		Crippen Method
logp	3.300		Crippen Method
mcvol	145.320	ml/mol	McGowan Method
pc	2909.25	kPa	Joback Method
tb	516.87	K	Joback Method
tc	751.11	K	Joback Method
tf	302.26	K	Joback Method
vc	0.546	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	332.41	J/mol×K	516.87	Joback Method
cpg	350.99	J/mol×K	555.91	Joback Method
cpg	368.15	J/mol×K	594.95	Joback Method
cpg	384.07	J/mol×K	633.99	Joback Method
cpg	398.92	J/mol×K	673.03	Joback Method
cpg	412.88	J/mol×K	712.07	Joback Method
cpg	426.14	J/mol×K	751.11	Joback Method

Sources

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=C1985597&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

cpg:	Ideal gas heat capacity
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