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

Other names:	1,2,3,4-Tetrahydro-6-methylnaphthalene
	6-Methyl-(1,2,3,4-tetrahydronaphthalene)
	6-Methyltetralin
	6-Methyltetraline
	Naphthalene, 6-methyl-1,2,3,4-tetrahydro-
Inchi:	InChI=1S/C11H14/c1-9-6-7-10-4-2-3-5-11(10)8-9/h6-8H,2-5H2,1H3
InchiKey:	IVIDJLLPQYHHLM-UHFFFAOYSA-N
Formula:	C11H14
SMILES:	Cc1ccc2c(c1)CCCC2
Mol. weight [g/mol]:	146.23
CAS:	1680-51-9

Physical Properties

Property code	Value	Unit	Source
gf	191.25	kJ/mol	Joback Method
hf	30.20	kJ/mol	Joback Method
hfus	12.47	kJ/mol	Joback Method
hvap	44.07	kJ/mol	Joback Method
log10ws	-3.45		Crippen Method
logp	2.874		Crippen Method
mcvol	131.230	ml/mol	McGowan Method
pc	3138.51	kPa	Joback Method
rinpol	1247.00		NIST Webbook
rinpol	1262.00		NIST Webbook
rinpol	1254.00		NIST Webbook
rinpol	1275.00		NIST Webbook
rinpol	1246.28		NIST Webbook
rinpol	1254.00		NIST Webbook
rinpol	1246.78		NIST Webbook
tb	503.40	K	Joback Method
tc	733.22	K	Joback Method
tf	283.85	K	Joback Method
vc	0.493	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	286.10	J/mol×K	503.40	Joback Method
cpg	303.12	J/mol×K	541.70	Joback Method
cpg	319.01	J/mol×K	580.01	Joback Method
cpg	333.82	J/mol×K	618.31	Joback Method
cpg	347.63	J/mol×K	656.62	Joback Method
cpg	360.49	J/mol×K	694.92	Joback Method
cpg	372.48	J/mol×K	733.22	Joback Method
dvisc	0.0020466	Pa×s	283.85	Joback Method
dvisc	0.0012516	Pa×s	320.44	Joback Method
dvisc	0.0008466	Pa×s	357.03	Joback Method
dvisc	0.0006158	Pa×s	393.62	Joback Method
dvisc	0.0004729	Pa×s	430.22	Joback Method
dvisc	0.0003785	Pa×s	466.81	Joback Method
dvisc	0.0003129	Pa×s	503.40	Joback Method
hvapt	53.70	kJ/mol	456.50	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.42617e+01
Coeff. B	-3.68061e+03
Coeff. C	-1.17349e+02
Temperature range (K), min.	380.74
Temperature range (K), max.	528.58

Sources

Joback Method: https://en.wikipedia.org/wiki/Joback_method

KDB: https://www.cheric.org/files/research/kdb/mol/mol763.mol

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C1680519&Units=SI

The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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
hvapt:	Enthalpy of vaporization at a given temperature
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume