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

Other names:	«alpha»-Methyltetralin
	1-Methyltetralin
	1-methyl-1,2,3,4-tetrahydronaphthalene
	Tetraline, 1-methyl
Inchi:	InChI=1S/C11H14/c1-9-5-4-7-10-6-2-3-8-11(9)10/h2-3,6,8-9H,4-5,7H2,1H3
InchiKey:	APBBTKKLSNPFDP-UHFFFAOYSA-N
Formula:	C11H14
SMILES:	CC1CCCc2ccccc21
Mol. weight [g/mol]:	146.23
CAS:	1559-81-5

Physical Properties

Property code	Value	Unit	Source
chl	-6261.80	kJ/mol	NIST Webbook
chl	-6270.10	kJ/mol	NIST Webbook
gf	193.17	kJ/mol	Joback Method
hf	21.33	kJ/mol	Joback Method
hfus	13.93	kJ/mol	Joback Method
hvap	43.10	kJ/mol	Joback Method
log10ws	-3.35		Crippen Method
logp	3.126		Crippen Method
mcvol	131.230	ml/mol	McGowan Method
pc	3076.16	kPa	Joback Method
rinpol	1194.51		NIST Webbook
rinpol	1207.00		NIST Webbook
rinpol	1194.51		NIST Webbook
rinpol	1236.24		NIST Webbook
rinpol	1224.00		NIST Webbook
rinpol	1224.00		NIST Webbook
rinpol	1229.00		NIST Webbook
rinpol	1236.24		NIST Webbook
rinpol	1205.00		NIST Webbook
rinpol	1230.71		NIST Webbook
rinpol	1222.02		NIST Webbook
rinpol	1212.00		NIST Webbook
rinpol	1207.37		NIST Webbook
rinpol	1202.17		NIST Webbook

rinpol	1229.00		NIST Webbook
rinpol	1207.00		NIST Webbook
tb	493.61 ± 0.40	K	NIST Webbook
tb	493.69 ± 0.15	K	NIST Webbook
tc	722.14	K	Joback Method
tf	267.09	K	Joback Method
vc	0.492	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	286.33	J/mol×K	493.75	Joback Method
cpg	304.24	J/mol×K	531.82	Joback Method
cpg	320.97	J/mol×K	569.88	Joback Method
cpg	336.57	J/mol×K	607.95	Joback Method
cpg	351.11	J/mol×K	646.01	Joback Method
cpg	364.65	J/mol×K	684.08	Joback Method
cpg	377.26	J/mol×K	722.14	Joback Method
dvisc	0.0019857	Pa×s	267.09	Joback Method
dvisc	0.0012337	Pa×s	304.87	Joback Method
dvisc	0.0008513	Pa×s	342.64	Joback Method
dvisc	0.0006323	Pa×s	380.42	Joback Method
dvisc	0.0004956	Pa×s	418.20	Joback Method
dvisc	0.0004045	Pa×s	455.97	Joback Method
dvisc	0.0003405	Pa×s	493.75	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=C1559815&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

chl:	Standard liquid enthalpy of combustion
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