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

Other names: 1,2,3,4-Tetrahydro-2,6-dimethylnaphthalene
2,6-Dimethyltetralin
Inchi: InChI=1S/C12H16/c1-9-3-5-12-8-10(2)4-6-11(12)7-9/h3,5,7,10H,4,6,8H2,1-2H3
InchiKey: DXRBFZCGSZKZTL-UHFFFAOYSA-N
Formula: C12H16
SMILES: Cc1ccc2c(c1)CCC(C)C2
Mol. weight [g/mol]: 160.26
CAS: 7524-63-2

Physical Properties

Property code	Value	Unit	Source
gf	191.96	kJ/mol	Joback Method
hf	-10.78	kJ/mol	Joback Method
hfus	16.13	kJ/mol	Joback Method
hvap	45.99	kJ/mol	Joback Method
log10ws	-3.62		Crippen Method
logp	3.120		Crippen Method
mcvol	145.320	ml/mol	McGowan Method
pc	2729.71	kPa	Joback Method
rinpol	1321.00		NIST Webbook
rinpol	1301.47		NIST Webbook
rinpol	1301.61		NIST Webbook
rinpol	1301.00		NIST Webbook
rinpol	1304.00		NIST Webbook
rinpol	1321.00		NIST Webbook
rinpol	1350.00		NIST Webbook
tb	521.61	K	Joback Method
tc	747.23	K	Joback Method
tf	290.88	K	Joback Method
vc	0.548	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source

cpg	333.07	J/mol×K	521.61	Joback Method
cpg	351.33	J/mol×K	559.21	Joback Method
cpg	368.45	J/mol×K	596.82	Joback Method
cpg	384.49	J/mol×K	634.42	Joback Method
cpg	399.49	J/mol×K	672.02	Joback Method
cpg	413.53	J/mol×K	709.63	Joback Method
cpg	426.65	J/mol×K	747.23	Joback Method
dvisc	0.0016585	Pa×s	290.88	Joback Method
dvisc	0.0010799	Pa×s	329.33	Joback Method
dvisc	0.0007692	Pa×s	367.79	Joback Method
dvisc	0.0005842	Pa×s	406.25	Joback Method
dvisc	0.0004653	Pa×s	444.70	Joback Method
dvisc	0.0003843	Pa×s	483.16	Joback Method
dvisc	0.0003265	Pa×s	521.61	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.36539e+01
Coeff. B	-3.93522e+03
Coeff. C	-8.38060e+01
Temperature range (K), min.	378.22
Temperature range (K), max.	555.52

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=C7524632&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

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
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume