Naphthalene, 1,3,5,7-tetramethyl

Other names: 1,3,5,7-Tetramethylnaphthalene
Inchi: InChI=1S/C14H16/c1-9-5-11(3)14-8-10(2)6-12(4)13(14)7-9/h5-8H,1-4H3
InchiKey: DJPXLDQUUDRRJC-UHFFFAOYSA-N
Formula: C14H16
SMILES: Cc1cc(C)c2cc(C)cc(C)c2c1
Mol. weight [g/mol]: 184.28

Physical Properties

Property code	Value	Unit	Source
gf	247.54	kJ/mol	Joback Method
hf	49.43	kJ/mol	Joback Method
hfus	21.52	kJ/mol	Joback Method
hvap	53.32	kJ/mol	Joback Method
log10ws	-5.18		Crippen Method
logp	4.073		Crippen Method
mcvol	164.900	ml/mol	McGowan Method
pc	2388.85	kPa	Joback Method
rinpol	1672.00		NIST Webbook
rinpol	1672.00		NIST Webbook
rinpol	283.04		NIST Webbook
rinpol	280.06		NIST Webbook
rinpol	283.04		NIST Webbook
tb	585.30	K	Joback Method
tc	810.38	K	Joback Method
tf	356.74	K	Joback Method
vc	0.633	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	389.23	J/mol×K	585.30	Joback Method
cpg	459.28	J/mol×K	772.87	Joback Method
cpg	446.95	J/mol×K	735.36	Joback Method
cpg	433.83	J/mol×K	697.84	Joback Method

cpg	419.87	J/mol×K	660.33	Joback Method
cpg	405.02	J/mol×K	622.81	Joback Method
cpg	470.88	J/mol×K	810.38	Joback Method
dvisc	0.0002702	Pa×s	585.30	Joback Method
dvisc	0.0003101	Pa×s	547.21	Joback Method
dvisc	0.0003634	Pa×s	509.11	Joback Method
dvisc	0.0004369	Pa×s	471.02	Joback Method
dvisc	0.0005425	Pa×s	432.93	Joback Method
dvisc	0.0007025	Pa×s	394.83	Joback Method
dvisc	0.0009613	Pa×s	356.74	Joback Method

Sources

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=R45881&Units=SI
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
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

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