

Naphthalene, 1,2-dihydro-1,4,6-trimethyl-

Other names:	1,2-Dihydro-1,4,6-trimethylnaphthalene
Inchi:	InChI=1S/C13H16/c1-9-4-7-12-10(2)5-6-11(3)13(12)8-9/h4,6-8,10H,5H2,1-3H3
InchiKey:	HQBMLUDYOSJUOR-UHFFFAOYSA-N
Formula:	C13H16
SMILES:	CC1=CCC(C)c2ccc(C)cc21
Mol. weight [g/mol]:	172.27
CAS:	55682-80-9

Physical Properties

Property code	Value	Unit	Source
gf	220.71	kJ/mol	Joback Method
hf	14.89	kJ/mol	Joback Method
hfus	19.56	kJ/mol	Joback Method
hvap	49.17	kJ/mol	Joback Method
log10ws	-4.27		Crippen Method
logp	3.906		Crippen Method
mcvol	155.110	ml/mol	McGowan Method
pc	2527.73	kPa	Joback Method
rinpol	1373.40		NIST Webbook
tb	548.63	K	Joback Method
tc	773.57	K	Joback Method
tf	315.43	K	Joback Method
vc	0.591	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	362.42	J/molxK	548.63	Joback Method
cpg	439.18	J/molxK	736.08	Joback Method
cpg	425.75	J/molxK	698.59	Joback Method
cpg	411.41	J/molxK	661.10	Joback Method
cpg	396.11	J/molxK	623.61	Joback Method
cpg	379.80	J/molxK	586.12	Joback Method
cpg	451.75	J/molxK	773.57	Joback Method

dvisc	0.0003143	Paxs	548.63	Joback Method
dvisc	0.0003620	Paxs	509.76	Joback Method
dvisc	0.0004267	Paxs	470.90	Joback Method
dvisc	0.0005181	Paxs	432.03	Joback Method
dvisc	0.0006536	Paxs	393.16	Joback Method
dvisc	0.0008679	Paxs	354.30	Joback Method
dvisc	0.0012357	Paxs	315.43	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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=C55682809&Units=SI

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
mvol:	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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