Naphthalene,decahydro-2-methyl-(2«alpha»,4a«al

Inchi: InChI=1S/C13H24/c1-11-6-9-12(2)7-4-5-8-13(12,3)10-11/h11H,4-10H2,1-3H3/t11-,12-,13

InchiKey: UKEIXTUCSSJHSH-AVGNSLFASA-N

Formula: C11H20

SMILES: CC1CCC2(C)CCCCC2(C)C1

Mol. weight [g/mol]: 152.28

CAS: 14398-71-1

Physical Properties

Property code	Value	Unit	Source
gf	112.99	kJ/mol	Joback Method
hf	-180.55	kJ/mol	Joback Method
hfus	5.77	kJ/mol	Joback Method
hvap	42.44	kJ/mol	Joback Method
ie	9.32 ± 0.01	eV	NIST Webbook
log10ws	-4.33		Crippen Method
logp	4.393		Crippen Method
mcvol	172.310	ml/mol	McGowan Method
pc	2381.86	kPa	Joback Method
tb	523.21	K	Joback Method
tc	753.27	K	Joback Method
tf	301.63	K	Joback Method
vc	0.640	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	433.57	J/mol×K	523.21	Joback Method
cpg	458.27	J/mol×K	561.55	Joback Method
cpg	481.16	J/mol×K	599.90	Joback Method
cpg	502.50	J/mol×K	638.24	Joback Method
cpg	522.57	J/mol×K	676.58	Joback Method
cpg	541.62	J/mol×K	714.93	Joback Method
cpg	559.93	J/mol×K	753.27	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C14398711&Units=SI
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

Legend

cpg:	Ideal gas heat capacity
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
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume