Decahydro-1,1,4a,5,6-pentamethylnaphthalene

Other names:	1,1,4a,5,6-Pentamethyldecahydronaphthalene
	Decahydro-4,4,8,9,10-pentamethyl-naphthalene
Inchi:	InChI=1S/C15H28/c1-11-7-8-13-14(3,4)9-6-10-15(13,5)12(11)2/h11-13H,6-10H2,1-5H3
InchiKey:	CVRSZZJUWRLRDE-UHFFFAOYSA-N
Formula:	C15H28
SMILES:	CC1CCC2C(C)(C)CCCC2(C)C1C
Mol. weight [g/mol]:	208.38
CAS:	80655-44-3

Physical Properties

Property code	Value	Unit	Source
gf	114.41	kJ/mol	Joback Method
hf	-262.51	kJ/mol	Joback Method
hfus	13.09	kJ/mol	Joback Method
hvap	46.27	kJ/mol	Joback Method
log10ws	-4.68		Crippen Method
logp	4.885		Crippen Method
mcvol	200.490	ml/mol	McGowan Method
pc	1878.90	kPa	Joback Method
rinpol	1470.00		NIST Webbook
tb	559.63	K	Joback Method
tc	781.26	K	Joback Method
tf	315.69	K	Joback Method
vc	0.750	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	538.74	J/mol×K	559.63	Joback Method
cpg	564.84	J/mol×K	596.57	Joback Method
cpg	589.33	J/mol×K	633.51	Joback Method
cpg	612.44	J/mol×K	670.44	Joback Method
cpg	634.40	J/mol×K	707.38	Joback Method
cpg	655.43	J/mol×K	744.32	Joback Method

cpg	675.77	J/mol×K	781.26	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=C80655443&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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
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