1,4:5,8-Dimethanonaphthalene, decahydro-,(1«alpha»,4«alpha»,4a«alpha»,5«beta

Inchi: InChI=1S/C12H18/c1-2-8-5-7(1)11-9-3-4-10(6-9)12(8)11/h7-12H,1-6H2/t7-,8+,9-,10+,11-

InchiKey: VSHDEZHNJCSDFY-CJXDBHJTSA-N

Formula: C12H18

SMILES: C1CC2CC1C1C3CCC(C3)C21

Mol. weight [g/mol]: 162.27

CAS: 15914-95-1

Physical Properties

Property code	Value	Unit	Source
gf	277.74	kJ/mol	Joback Method
hf	-40.49	kJ/mol	Joback Method
hfus	21.52	kJ/mol	Joback Method
hvap	41.34	kJ/mol	Joback Method
ie	9.00	eV	NIST Webbook
ie	9.57 ± 0.03	eV	NIST Webbook
log10ws	-2.97		Crippen Method
logp	3.079		Crippen Method
mcvol	136.500	ml/mol	McGowan Method
pc	2724.01	kPa	Joback Method
tb	491.58	K	Joback Method
tc	707.52	K	Joback Method
tf	288.28	K	Joback Method
vc	0.533	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	353.87	J/mol×K	491.58	Joback Method
cpg	376.79	J/mol×K	527.57	Joback Method
cpg	398.02	J/mol×K	563.56	Joback Method
cpg	417.69	J/mol×K	599.55	Joback Method
cpg	435.94	J/mol×K	635.54	Joback Method
cpg	452.90	J/mol×K	671.53	Joback Method
cpg	468.70	J/mol×K	707.52	Joback Method

dvisc	0.0006932	Pa×s	288.28	Joback Method
dvisc	0.0010425	Pa×s	322.16	Joback Method
dvisc	0.0014506	Pa×s	356.05	Joback Method
dvisc	0.0019058	Pa×s	389.93	Joback Method
dvisc	0.0023970	Pa×s	423.81	Joback Method
dvisc	0.0029141	Pa×s	457.70	Joback Method
dvisc	0.0034486	Pa×s	491.58	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=C15914951&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
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