Phenanthrene, tetradecahydro-4,5-dimethyl-

Other names: 1,3-dimethyltricyclo[8.4.0.0(2,6)]tetradecane
Inchi: InChI=1S/C16H28/c1-11-5-3-7-13-9-10-14-8-4-6-12(2)16(14)15(11)13/h11-16H,3-10H2,1
InchiKey: LRCLMXSQZAMLRS-UHFFFAOYSA-N
Formula: C16H28
SMILES: CC1CCCC2CCC3CCCC(C)C3C12
Mol. weight [g/mol]: 220.39
CAS: 56292-68-3

Physical Properties

Property code	Value	Unit	Source
gf	182.46	kJ/mol	Joback Method
hf	-246.99	kJ/mol	Joback Method
hfus	24.31	kJ/mol	Joback Method
hvap	50.88	kJ/mol	Joback Method
log10ws	-4.75		Crippen Method
logp	4.885		Crippen Method
mcvol	203.720	ml/mol	McGowan Method
pc	1829.41	kPa	Joback Method
tb	593.04	K	Joback Method
tc	816.70	K	Joback Method
tf	293.58	K	Joback Method
vc	0.759	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	587.04	J/mol×K	593.04	Joback Method
cpg	712.36	J/mol×K	779.42	Joback Method
cpg	690.60	J/mol×K	742.14	Joback Method
cpg	667.26	J/mol×K	704.87	Joback Method
cpg	642.28	J/mol×K	667.59	Joback Method
cpg	615.56	J/mol×K	630.32	Joback Method
cpg	732.61	J/mol×K	816.70	Joback Method
dvisc	0.0008070	Pa×s	593.04	Joback Method

dvisc	0.0008847	Pa×s	543.13	Joback Method
dvisc	0.0009881	Pa×s	493.22	Joback Method
dvisc	0.0011314	Pa×s	443.31	Joback Method
dvisc	0.0013408	Pa×s	393.40	Joback Method
dvisc	0.0016692	Pa×s	343.49	Joback Method
dvisc	0.0022389	Pa×s	293.58	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=C56292683&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
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume