Perylene, 1,2,3,3a,4,5,6,7,8,9,9a,10,11,12-tetradecahydro-

Other names: 1,2,3,3a,4,5,6,7,8,9,9a,10,11,12-Tetradecahydroperylene
Inchi: InChI=1S/C20H26/c1-5-13-6-2-11-17-18-12-4-8-14-7-3-10-16(20(14)18)15(9-1)19(13)17/
InchiKey: JAEIWHRMTMZKDG-UHFFFAOYSA-N
Formula: C20H26
SMILES: C1Cc2c3c4c(c5c2C(C1)CCC5)CCCC4CCC3
Mol. weight [g/mol]: 266.42
CAS: 7594-86-7

Physical Properties

Property code	Value	Unit	Source
gf	416.00	kJ/mol	Joback Method
hf	42.61	kJ/mol	Joback Method
hfus	25.85	kJ/mol	Joback Method
hvap	66.31	kJ/mol	Joback Method
log10ws	-6.63		Crippen Method
logp	5.199		Crippen Method
mcvol	225.460	ml/mol	McGowan Method
pc	1982.35	kPa	Joback Method
tb	753.42	K	Joback Method
tc	1000.36	K	Joback Method
tf	477.38	K	Joback Method
vc	0.862	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	711.57	J/mol×K	753.42	Joback Method
cpg	733.56	J/mol×K	794.58	Joback Method
cpg	754.14	J/mol×K	835.73	Joback Method
cpg	773.54	J/mol×K	876.89	Joback Method
cpg	791.96	J/mol×K	918.04	Joback Method
cpg	809.62	J/mol×K	959.20	Joback Method
cpg	826.76	J/mol×K	1000.36	Joback Method
dvisc	0.0041641	Pa×s	477.38	Joback Method

dvisc	0.0035743	Pa×s	523.39	Joback Method
dvisc	0.0031447	Pa×s	569.39	Joback Method
dvisc	0.0028202	Pa×s	615.40	Joback Method
dvisc	0.0025678	Pa×s	661.41	Joback Method
dvisc	0.0023666	Pa×s	707.41	Joback Method
dvisc	0.0022031	Pa×s	753.42	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C7594867&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
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