9,10-Dihydro-9,10-dihydroxyphenanthrene

Other names:	9,10-Phenanthrenediol, 9,10-dihydro- 9,10-Dihydro-9,10-hydroxy-phenanthrene 9,10-Dihydroxy-9,10-dihydrophenanathrene cis-Phenanthrene, 9,10-dihydro-9,10-diol
Inchi:	InChI=1S/C14H12O2/c15-13-11-7-3-1-5-9(11)10-6-2-4-8-12(10)14(13)16/h1-8,13-16H
InchiKey:	MFXNBQWUTDDOKE-UHFFFAOYSA-N
Formula:	C14H12O2
SMILES:	OC1c2ccccc2-c2ccccc2C1O
Mol. weight [g/mol]:	212.24
CAS:	25061-77-2

Physical Properties

Property code	Value	Unit	Source
gf	64.06	kJ/mol	Joback Method
hf	-128.01	kJ/mol	Joback Method
hfus	28.80	kJ/mol	Joback Method
hvap	85.42	kJ/mol	Joback Method
log10ws	-4.18		Crippen Method
logp	2.434		Crippen Method
mcvol	161.480	ml/mol	McGowan Method
pc	3568.53	kPa	Joback Method
rinpol	1980.00		NIST Webbook
rinpol	1980.00		NIST Webbook
tb	765.20	K	Joback Method
tc	978.77	K	Joback Method
tf	464.28	K	Joback Method
vc	0.606	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	460.64	J/mol×K	765.20	Joback Method
cpg	471.31	J/mol×K	800.79	Joback Method
cpg	481.29	J/mol×K	836.39	Joback Method

cpg	490.66	J/mol×K	871.98	Joback Method
cpg	499.49	J/mol×K	907.58	Joback Method
cpg	507.85	J/mol×K	943.17	Joback Method
cpg	515.83	J/mol×K	978.77	Joback Method
dvisc	0.0012437	Pa×s	464.28	Joback Method
dvisc	0.0005307	Pa×s	514.43	Joback Method
dvisc	0.0002635	Pa×s	564.59	Joback Method
dvisc	0.0001466	Pa×s	614.74	Joback Method
dvisc	0.0000892	Pa×s	664.89	Joback Method
dvisc	0.0000581	Pa×s	715.05	Joback Method
dvisc	0.0000401	Pa×s	765.20	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=C25061772&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
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