Anthracene, 1,2-dihydro-

Other names: 1,2-Dihydroanthracene
Inchi: InChI=1S/C14H12/c1-2-6-12-10-14-8-4-3-7-13(14)9-11(12)5-1/h1-3,5-7,9-10H,4,8H2
InchiKey: SSDCYRGPZNHDOL-UHFFFAOYSA-N
Formula: C14H12
SMILES: C1=Cc2cc3ccccc3cc2CC1
Mol. weight [g/mol]: 180.25
CAS: 58746-82-0

Physical Properties

Property code	Value	Unit	Source
gf	353.12	kJ/mol	Joback Method
hf	217.13	kJ/mol	Joback Method
hfus	18.48	kJ/mol	Joback Method
hvap	52.68	kJ/mol	Joback Method
log10ws	-4.80		Crippen Method
logp	3.799		Crippen Method
mcvol	149.740	ml/mol	McGowan Method
pc	3114.04	kPa	Joback Method
rinpol	287.50		NIST Webbook
rinpol	287.50		NIST Webbook
rinpol	1700.00		NIST Webbook
tb	590.18	K	Joback Method
tc	841.42	K	Joback Method
tf	351.12	K	Joback Method
vc	0.570	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	354.45	J/mol×K	590.18	Joback Method
cpg	370.70	J/mol×K	632.05	Joback Method
cpg	385.58	J/mol×K	673.93	Joback Method
cpg	399.22	J/mol×K	715.80	Joback Method
cpg	411.76	J/mol×K	757.67	Joback Method

cpg	423.34	J/mol×K	799.55	Joback Method
cpg	434.09	J/mol×K	841.42	Joback Method
dvisc	0.0016514	Pa×s	351.12	Joback Method
dvisc	0.0011961	Pa×s	390.96	Joback Method
dvisc	0.0009195	Pa×s	430.81	Joback Method
dvisc	0.0007391	Pa×s	470.65	Joback Method
dvisc	0.0006147	Pa×s	510.49	Joback Method
dvisc	0.0005250	Pa×s	550.34	Joback Method
dvisc	0.0004581	Pa×s	590.18	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=C58746820&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
rinpol: Non-polar retention indices
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume