Phenanthrene, 2-dodecyl-9,10-dihydro-

Other names: 2-n-Dodecyl-(9,10-dihydrophenanthrene)
9,10-dihydro-2-dodecylphenanthrene
Inchi: InChI=1S/C26H36/c1-2-3-4-5-6-7-8-9-10-11-14-22-17-20-26-24(21-22)19-18-23-15-12-13
InchiKey: WDMSUEBWJIGUCL-UHFFFAOYSA-N
Formula: C26H36
SMILES: CCCCCCCCCCCCc1ccc2c(c1)CCc1ccccc1-2
Mol. weight [g/mol]: 348.56
CAS: 55401-77-9

Physical Properties

Property code	Value	Unit	Source
gf	444.53	kJ/mol	Joback Method
hf	-42.02	kJ/mol	Joback Method
hfus	49.17	kJ/mol	Joback Method
hvap	80.06	kJ/mol	Joback Method
log10ws	-9.73		Crippen Method
logp	7.916		Crippen Method
mcvol	318.820	ml/mol	McGowan Method
pc	1142.12	kPa	Joback Method
tb	869.72	K	Joback Method
tc	1081.27	K	Joback Method
tf	498.88	K	Joback Method
vc	1.242	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1018.59	J/mol×K	869.72	Joback Method
cpg	1038.04	J/mol×K	904.98	Joback Method
cpg	1056.50	J/mol×K	940.24	Joback Method
cpg	1074.07	J/mol×K	975.49	Joback Method
cpg	1090.87	J/mol×K	1010.75	Joback Method
cpg	1107.01	J/mol×K	1046.01	Joback Method
cpg	1122.61	J/mol×K	1081.27	Joback Method

dvisc	0.0010961	Pa×s	498.88	Joback Method
dvisc	0.0006756	Pa×s	560.69	Joback Method
dvisc	0.0004584	Pa×s	622.49	Joback Method
dvisc	0.0003336	Pa×s	684.30	Joback Method
dvisc	0.0002559	Pa×s	746.11	Joback Method
dvisc	0.0002044	Pa×s	807.91	Joback Method
dvisc	0.0001686	Pa×s	869.72	Joback Method

Sources

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=C55401779&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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