Diacenaphtho[1,2-j:1',2'-l]fluoranthene

Other names:	Decacyclene
	Diacenaphtheno[1,2-j:1',2'-l]fluoranthen
	tri-Perinaphthylene benzene
	benzo[a,a',a']triacenaphthylene
Inchi:	InChI=1S/C36H18/c1-7-19-8-2-14-23-28(19)22(13-1)31-32(23)34-26-17-5-11-21-12-6-18
InchiKey:	CUIWZLHUNCCYBL-UHFFFAOYSA-N
Formula:	C36H18
SMILES:	c1cc2cccc3c2c(c1)c1c2c4cccc5cccc(c54)c2c2c4cccc5cccc(c54)c2c31
Mol. weight [g/mol]:	450.53
CAS:	191-48-0

Physical Properties

Property code	Value	Unit	Source
gf	1230.18	kJ/mol	Joback Method
hf	941.65	kJ/mol	Joback Method
hfus	62.03	kJ/mol	Joback Method
hvap	116.15	kJ/mol	Joback Method
ie	7.30 ± 0.10	eV	NIST Webbook
log10ws	-15.96		Crippen Method
logp	10.379		Crippen Method
mcvol	332.100	ml/mol	McGowan Method
pc	1579.71	kPa	Joback Method
tb	1237.32	K	Joback Method
tc	1526.05	K	Joback Method
tf	666.00 ± 1.00	K	NIST Webbook
tf	562.00 ± 0.30	K	NIST Webbook
vc	1.331	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1165.67	J/mol×K	1237.32	Joback Method
cpg	1213.56	J/mol×K	1285.44	Joback Method
cpg	1268.03	J/mol×K	1333.56	Joback Method

cpg	1329.84	J/mol×K	1381.68	Joback Method
cpg	1399.76	J/mol×K	1429.81	Joback Method
cpg	1478.54	J/mol×K	1477.93	Joback Method
cpg	1566.95	J/mol×K	1526.05	Joback Method
dvisc	0.1926365	Pa×s	1035.91	Joback Method
dvisc	0.1893636	Pa×s	985.55	Joback Method
dvisc	0.1858032	Pa×s	935.20	Joback Method
dvisc	0.1956549	Pa×s	1086.26	Joback Method
dvisc	0.1984470	Pa×s	1136.61	Joback Method
dvisc	0.2010371	Pa×s	1186.97	Joback Method
dvisc	0.2034462	Pa×s	1237.32	Joback Method
hfust	45.20	kJ/mol	562.00	NIST Webbook
hfust	25.40	kJ/mol	666.00	NIST Webbook
hfust	25.40	kJ/mol	666.00	NIST Webbook
sfust	80.40	J/mol×K	562.00	NIST Webbook

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=C191480&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
hfust: Enthalpy of fusion at a given temperature
hvap: Enthalpy of vaporization at standard conditions
ie: Ionization energy
log10ws: Log10 of Water solubility in mol/l
logp: Octanol/Water partition coefficient
mcvol: McGowan's characteristic volume
pc: Critical Pressure

sfust:	Entropy of fusion at a given temperature
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume