9H-Fluorene, 9,9-diphenyl-

Other names: Fluorene, 9,9-diphenyl-
Inchi: InChI=1S/C25H18/c1-3-11-19(12-4-1)25(20-13-5-2-6-14-20)23-17-9-7-15-21(23)22-16-8-
InchiKey: BKQXUNGELBDWLS-UHFFFAOYSA-N
Formula: C25H18
SMILES: c1ccc(C2(c3ccccc3)c3ccccc3-c3ccccc32)cc1
Mol. weight [g/mol]: 318.41
CAS: 20302-14-1

Physical Properties

Property code	Value	Unit	Source
gf	669.46	kJ/mol	Joback Method
hf	464.21	kJ/mol	Joback Method
hfus	31.93	kJ/mol	Joback Method
hvap	80.09	kJ/mol	Joback Method
log10ws	-7.53		Crippen Method
logp	6.050		Crippen Method
mcvol	257.210	ml/mol	McGowan Method
pc	2068.00	kPa	Joback Method
tb	886.52	K	Joback Method
tc	1171.36	K	Joback Method
tf	551.11	K	Joback Method
vc	0.975	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	763.19	J/mol×K	886.52	Joback Method
cpg	783.57	J/mol×K	933.99	Joback Method
cpg	804.20	J/mol×K	981.47	Joback Method
cpg	825.59	J/mol×K	1028.94	Joback Method
cpg	848.27	J/mol×K	1076.41	Joback Method
cpg	872.73	J/mol×K	1123.89	Joback Method
cpg	899.49	J/mol×K	1171.36	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=C20302141&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
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