9H-Fluorene, 9-phenyl-

Other names: Fluorene, 9-phenyl-
9-Phenylfluorene
Inchi: InChI=1S/C19H14/c1-2-8-14(9-3-1)19-17-12-6-4-10-15(17)16-11-5-7-13-18(16)19/h1-13,
InchiKey: ZJQCOVBALALRCC-UHFFFAOYSA-N
Formula: C19H14
SMILES: c1ccc(C2c3ccccc3-c3ccccc32)cc1
Mol. weight [g/mol]: 242.31
CAS: 789-24-2

Physical Properties

Property code	Value	Unit	Source
gf	512.02	kJ/mol	Joback Method
hf	336.28	kJ/mol	Joback Method
hfus	28.65	kJ/mol	Joback Method
hvap	65.61	kJ/mol	Joback Method
log10ws	-6.10		Crippen Method
logp	4.847		Crippen Method
mcvol	196.430	ml/mol	McGowan Method
pc	2502.50	kPa	Joback Method
rinpol	356.37		NIST Webbook
rinpol	390.30		NIST Webbook
rinpol	357.30		NIST Webbook
tb	722.32	K	Joback Method
tc	987.55	K	Joback Method
tf	433.17	K	Joback Method
vc	0.749	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	526.94	J/mol×K	722.32	Joback Method
cpg	598.98	J/mol×K	943.35	Joback Method
cpg	586.56	J/mol×K	899.14	Joback Method
cpg	573.36	J/mol×K	854.94	Joback Method

cpg	559.15	J/mol×K	810.73	Joback Method
cpg	543.75	J/mol×K	766.53	Joback Method
cpg	610.82	J/mol×K	987.55	Joback Method
dvisc	0.0005942	Pa×s	722.32	Joback Method
dvisc	0.0006662	Pa×s	674.13	Joback Method
dvisc	0.0007601	Pa×s	625.94	Joback Method
dvisc	0.0008865	Pa×s	577.75	Joback Method
dvisc	0.0010633	Pa×s	529.55	Joback Method
dvisc	0.0013228	Pa×s	481.36	Joback Method
dvisc	0.0017273	Pa×s	433.17	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=C789242&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

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