9H-Fluorene, 4-methyl-

Other names: Fluorene, 4-methyl-
4-Methylfluorene
4-methyl-9H-fluorene
Inchi: InChI=1S/C14H12/c1-10-5-4-7-12-9-11-6-2-3-8-13(11)14(10)12/h2-8H,9H2,1H3
InchiKey: OPFILOLCFWFBNT-UHFFFAOYSA-N
Formula: C14H12
SMILES: Cc1cccc2c1-c1ccccc1C2
Mol. weight [g/mol]: 180.25
CAS: 1556-99-6

Physical Properties

Property code	Value	Unit	Source
gf	355.59	kJ/mol	Joback Method
hf	211.82	kJ/mol	Joback Method
hfus	20.20	kJ/mol	Joback Method
hvap	53.17	kJ/mol	Joback Method
log10ws	-4.90		Crippen Method
logp	3.566		Crippen Method
mcvol	149.740	ml/mol	McGowan Method
pc	2979.54	kPa	Joback Method
rinpol	1690.00		NIST Webbook
rinpol	1690.00		NIST Webbook
rinpol	286.90		NIST Webbook
rinpol	293.00		NIST Webbook
rinpol	288.25		NIST Webbook
rinpol	256.30		NIST Webbook
rinpol	256.30		NIST Webbook
rinpol	1710.80		NIST Webbook
rinpol	1729.50		NIST Webbook
rinpol	257.60		NIST Webbook
tb	590.89	K	Joback Method
tc	834.31	K	Joback Method
tf	367.16	K	Joback Method
vc	0.578	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	352.92	J/mol×K	590.89	Joback Method
cpg	417.12	J/mol×K	793.74	Joback Method
cpg	406.16	J/mol×K	753.17	Joback Method
cpg	394.39	J/mol×K	712.60	Joback Method
cpg	381.68	J/mol×K	672.03	Joback Method
cpg	367.90	J/mol×K	631.46	Joback Method
cpg	427.40	J/mol×K	834.31	Joback Method
dvisc	0.0005841	Pa×s	590.89	Joback Method
dvisc	0.0006433	Pa×s	553.60	Joback Method
dvisc	0.0007184	Pa×s	516.31	Joback Method
dvisc	0.0008162	Pa×s	479.02	Joback Method
dvisc	0.0009476	Pa×s	441.74	Joback Method
dvisc	0.0011308	Pa×s	404.45	Joback Method
dvisc	0.0013988	Pa×s	367.16	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=C1556996&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
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