9H-Fluorene, 1,9-dimethyl-

Other names: 1,9-Dimethylfluorene
Fluorene, 1,9-dimethyl-
Inchi: InChI=1S/C15H14/c1-10-6-5-9-14-13-8-4-3-7-12(13)11(2)15(10)14/h3-9,11H,1-2H3
InchiKey: BNGCFLDEAHJKPE-UHFFFAOYSA-N
Formula: C15H14
SMILES: Cc1cccc2c1C(C)c1ccccc1-2
Mol. weight [g/mol]: 194.27
CAS: 17057-98-6

Physical Properties

Property code	Value	Unit	Source
gf	356.30	kJ/mol	Joback Method
hf	170.84	kJ/mol	Joback Method
hfus	23.86	kJ/mol	Joback Method
hvap	55.09	kJ/mol	Joback Method
log10ws	-5.28		Crippen Method
logp	4.127		Crippen Method
mcvol	163.830	ml/mol	McGowan Method
pc	2600.43	kPa	Joback Method
tb	609.10	K	Joback Method
tc	847.49	K	Joback Method
tf	374.19	K	Joback Method
vc	0.632	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	403.25	J/mol×K	609.10	Joback Method
cpg	473.18	J/mol×K	807.76	Joback Method
cpg	461.12	J/mol×K	768.03	Joback Method
cpg	448.21	J/mol×K	728.29	Joback Method
cpg	434.34	J/mol×K	688.56	Joback Method
cpg	419.39	J/mol×K	648.83	Joback Method
cpg	484.50	J/mol×K	847.49	Joback Method

dvisc	0.0006520	Pa×s	609.10	Joback Method
dvisc	0.0007050	Pa×s	569.95	Joback Method
dvisc	0.0007712	Pa×s	530.80	Joback Method
dvisc	0.0008558	Pa×s	491.65	Joback Method
dvisc	0.0009668	Pa×s	452.49	Joback Method
dvisc	0.0011178	Pa×s	413.34	Joback Method
dvisc	0.0013323	Pa×s	374.19	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.02879e+01
Coeff. B	-2.93205e+03
Coeff. C	-8.67250e+01
Temperature range (K), min.	379.92
Temperature range (K), max.	675.91

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=C17057986&Units=SI

The Yaws Handbook of Vapor Pressure: https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

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
pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume