9H-Fluorene, 9-(phenylmethylene)-

Other names:	Fluorene, 9-benzylidene-
	Benzalfluorene
	1-Phenyl-2-biphenyleneethylene
	9-Benzylidenefluorene
Inchi:	InChI=1S/C20H14/c1-2-8-15(9-3-1)14-20-18-12-6-4-10-16(18)17-11-5-7-13-19(17)20/h1-
InchiKey:	RMQMLYMBZGDKBY-UHFFFAOYSA-N
Formula:	C20H14
SMILES:	C(=C1c2ccccc2-c2ccccc21)c1ccccc1
Mol. weight [g/mol]:	254.33
CAS:	1836-87-9

Physical Properties

Property code	Value	Unit	Source
gf	573.61	kJ/mol	Joback Method
hf	412.01	kJ/mol	Joback Method
hfus	30.49	kJ/mol	Joback Method
hvap	68.93	kJ/mol	Joback Method
log10ws	-6.64		Crippen Method
logp	5.256		Crippen Method
mcvol	206.220	ml/mol	McGowan Method
pc	2419.50	kPa	Joback Method
tb	756.51	K	Joback Method
tc	1022.36	K	Joback Method
tf	459.04	K	Joback Method
vc	0.788	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	550.55	J/mol×K	756.51	Joback Method
cpg	566.14	J/mol×K	800.82	Joback Method
cpg	580.56	J/mol×K	845.13	Joback Method
cpg	594.03	J/mol×K	889.43	Joback Method
cpg	606.79	J/mol×K	933.74	Joback Method

cpg	619.06	J/mol×K	978.05	Joback Method
cpg	631.08	J/mol×K	1022.36	Joback Method
dvisc	0.0014428	Pa×s	459.04	Joback Method
dvisc	0.0010751	Pa×s	508.62	Joback Method
dvisc	0.0008440	Pa×s	558.20	Joback Method
dvisc	0.0006893	Pa×s	607.77	Joback Method
dvisc	0.0005804	Pa×s	657.35	Joback Method
dvisc	0.0005007	Pa×s	706.93	Joback Method
dvisc	0.0004403	Pa×s	756.51	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=C1836879&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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