Dimesitylmethane

Other names: Benzene, 1,1'-methylenebis[2,4,6-trimethyl-
1,1'-methylenebis[2,4,6-trimethylbenzene]
Inchi: InChI=1S/C19H24/c1-12-7-14(3)18(15(4)8-12)11-19-16(5)9-13(2)10-17(19)6/h7-10H,11H
InchiKey: ZQYQPPLKPFBKLD-UHFFFAOYSA-N
Formula: C19H24
SMILES: Cc1cc(C)c(Cc2c(C)cc(C)cc2C)c(C)c1
Mol. weight [g/mol]: 252.39
CAS: 733-07-3

Physical Properties

Property code	Value	Unit	Source
gf	276.14	kJ/mol	Joback Method
hf	-31.25	kJ/mol	Joback Method
hfus	30.71	kJ/mol	Joback Method
hvap	66.41	kJ/mol	Joback Method
log10ws	-6.43		Crippen Method
logp	5.128		Crippen Method
mcvol	231.050	ml/mol	McGowan Method
pc	1639.10	kPa	Joback Method
tb	717.36	K	Joback Method
tc	940.09	K	Joback Method
tf	431.85	K	Joback Method
vc	0.883	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	630.19	J/mol×K	717.36	Joback Method
cpg	711.67	J/mol×K	902.97	Joback Method
cpg	697.47	J/mol×K	865.85	Joback Method
cpg	682.26	J/mol×K	828.73	Joback Method
cpg	666.00	J/mol×K	791.60	Joback Method
cpg	648.66	J/mol×K	754.48	Joback Method
cpg	724.89	J/mol×K	940.09	Joback Method

dvisc	0.0001111	Pa×s	717.36	Joback Method
dvisc	0.0001336	Pa×s	669.78	Joback Method
dvisc	0.0001652	Pa×s	622.19	Joback Method
dvisc	0.0002115	Pa×s	574.61	Joback Method
dvisc	0.0002833	Pa×s	527.02	Joback Method
dvisc	0.0004020	Pa×s	479.44	Joback Method
dvisc	0.0006163	Pa×s	431.85	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C733073&Units=SI
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

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