Methanone, bis[4-(dimethylamino)phenyl]-

Other names:	Benzophenone, 4,4'-bis(dimethylamino)-
	p,p'-bis(Dimethylamino)benzophenone
	Bis[p-(N,N-dimethylamino)phenyl] ketone
	Michler's ketone
	N,N,N',N'-Tetramethyl-4,4'-diaminobenzophenone
	4,4'-Bis(dimethylamino)benzophenone
	4,4'-di(Dimethylamino)benzophenone
	Michlers ketone
	p,p'-Tetramethyldiaminobenzophenone
	(4,4'-Tetramethyldiamino)benzophenone
	p,p'-Bis(N,N-dimethylamino)benzophenone
	p,p'-Michler's ketone
	Michler ketone
	NCI-C02006
	Bis(4-(dimethylamino)phenyl)methanone
	4,4'-Bis(N,N-dimethylamino)benzophenone
	NSC 9602
Inchi:	InChI=1S/C17H20N2O/c1-18(2)15-9-5-13(6-10-15)17(20)14-7-11-16(12-8-14)19(3)4/h5-1
InchiKey:	VVBLNCFGVYUYGU-UHFFFAOYSA-N
Formula:	C17H20N2O
SMILES:	CN(C)c1ccc(C(=O)c2ccc(N(C)C)cc2)cc1
Mol. weight [g/mol]:	268.35
CAS:	90-94-8

Physical Properties

Property code	Value	Unit	Source
gf	390.46	kJ/mol	Joback Method
hf	78.39	kJ/mol	Joback Method
hfus	34.73	kJ/mol	Joback Method
hvap	70.14	kJ/mol	Joback Method
log10ws	-3.25		Crippen Method
logp	3.050		Crippen Method
mcvol	224.400	ml/mol	McGowan Method
pc	2145.33	kPa	Joback Method
tb	730.43	K	Joback Method
tc	957.04	K	Joback Method
tf	474.10	K	Joback Method

vc	0.814	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	622.97	J/mol×K	730.43	Joback Method
cpg	639.75	J/mol×K	768.20	Joback Method
cpg	655.28	J/mol×K	805.97	Joback Method
cpg	669.63	J/mol×K	843.74	Joback Method
cpg	682.89	J/mol×K	881.51	Joback Method
cpg	695.13	J/mol×K	919.28	Joback Method
cpg	706.46	J/mol×K	957.04	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C90948&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
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