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

Other names:	Benzophenone, 4-(dimethylamino)-
	p-Benzoyl-N,N-dimethylaniline
	p-Dimethylaminobenzophenone
	4-(Dimethylamino)benzophenone
	4-N,N-Dimethylaminobenzophenone
	Benzenamine,N,N-dimethyl-4-(phenylmethanone)-
Inchi:	InChI=1S/C15H15NO/c1-16(2)14-10-8-13(9-11-14)15(17)12-6-4-3-5-7-12/h3-11H,1-2H3
InchiKey:	BEUGBYXJXMVRFO-UHFFFAOYSA-N
Formula:	C15H15NO
SMILES:	CN(C)c1ccc(C(=O)c2ccccc2)cc1
Mol. weight [g/mol]:	225.29
CAS:	530-44-9

Physical Properties

Property code	Value	Unit	Source
gf	272.47	kJ/mol	Joback Method
hf	63.61	kJ/mol	Joback Method
hfus	26.92	kJ/mol	Joback Method
hvap	62.99	kJ/mol	Joback Method
ie	7.50 ± 0.05	eV	NIST Webbook
log10ws	-3.34		Crippen Method
logp	2.984		Crippen Method
mcvol	186.240	ml/mol	McGowan Method
pc	2629.85	kPa	Joback Method
tb	667.25	K	Joback Method
tc	905.50	K	Joback Method
tf	406.57	K	Joback Method
vc	0.683	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	478.23	J/mol×K	667.25	Joback Method
cpg	494.53	J/mol×K	706.96	Joback Method

cpg	509.52	J/mol×K	746.67	Joback Method
cpg	523.30	J/mol×K	786.37	Joback Method
cpg	535.96	J/mol×K	826.08	Joback Method
cpg	547.56	J/mol×K	865.79	Joback Method
cpg	558.21	J/mol×K	905.50	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=C530449&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
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
ie:	Ionization energy
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