

Methanone, (4-methoxyphenyl)phenyl-

Other names:	Benzophenone, 4-methoxy- p-Methoxybenzophenone 4-Methoxybenzophenone
Inchi:	InChI=1S/C14H12O2/c1-16-13-9-7-12(8-10-13)14(15)11-5-3-2-4-6-11/h2-10H,1H3
InchiKey:	SWFHGTMLYIBPPA-UHFFFAOYSA-N
Formula:	C14H12O2
SMILES:	<chem>COc1ccc(C(=O)c2ccccc2)cc1</chem>
Mol. weight [g/mol]:	212.24
CAS:	611-94-9

Physical Properties

Property code	Value	Unit	Source
gf	48.27	kJ/mol	Joback Method
hf	-115.50	kJ/mol	Joback Method
hfus	22.50	kJ/mol	Joback Method
hvap	61.13	kJ/mol	Joback Method
log10ws	-3.55		Crippen Method
logp	2.926		Crippen Method
mcvol	168.040	ml/mol	McGowan Method
pc	2862.74	kPa	Joback Method
rinsol	1874.00		NIST Webbook
tb	628.20	K	NIST Webbook
tc	898.02	K	Joback Method
tf	385.06	K	Joback Method
vc	0.627	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	415.01	J/molxK	654.35	Joback Method
cpg	430.11	J/molxK	694.96	Joback Method
cpg	444.02	J/molxK	735.57	Joback Method
cpg	456.81	J/molxK	776.19	Joback Method
cpg	468.50	J/molxK	816.80	Joback Method

cpg	479.16	J/molxK	857.41	Joback Method
cpg	488.82	J/molxK	898.02	Joback Method
dvisc	0.0012880	Paxs	385.06	Joback Method
dvisc	0.0007464	Paxs	429.94	Joback Method
dvisc	0.0004795	Paxs	474.82	Joback Method
dvisc	0.0003325	Paxs	519.71	Joback Method
dvisc	0.0002444	Paxs	564.59	Joback Method
dvisc	0.0001880	Paxs	609.47	Joback Method
dvisc	0.0001499	Paxs	654.35	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	627.70	K	97.20	NIST Webbook

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C611949&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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

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

rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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