Ethanone, 1-[1,1'-biphenyl]-4-yl-

Other names:	Acetophenone, 4'-phenyl-
	p-Phenylacetophenone
	Ketone, 4-biphenylyl methyl
	4-Acetylbiphenyl
	4-Biphenylyl methyl ketone
	4-Phenylacetophenone
	4'-Phenylacetophenone
	4-Diphenyl methyl ketone
	p-Biphenylyl methyl ketone
	4-Acetylbibenzyl
	p-Acetylbiphenyl
	Methyl 4-biphenylyl ketone
	1-Acetyl-4-phenylbenzene
	4-Phenyl-acetophenon
	1,1'-Biphenyl-4-yl methyl ketone
	NSC 1875
Inchi:	InChI=1S/C14H12O/c1-11(15)12-7-9-14(10-8-12)13-5-3-2-4-6-13/h2-10H,1H3
InchiKey:	QCZZSANNLWPGEA-UHFFFAOYSA-N
Formula:	C14H12O
SMILES:	CC(=O)c1ccc(-c2ccccc2)cc1
Mol. weight [g/mol]:	196.24
CAS:	92-91-1

Physical Properties

Property code	Value	Unit	Source
gf	153.27	kJ/mol	Joback Method
hf	16.72	kJ/mol	Joback Method
hfus	21.31	kJ/mol	Joback Method
hvap	58.72	kJ/mol	Joback Method
log10ws	-4.73		Crippen Method
logp	3.556		Crippen Method
mcvol	162.170	ml/mol	McGowan Method
pc	2915.53	kPa	Joback Method
tb	599.20	K	NIST Webbook
tb	599.00 ± 1.00	K	NIST Webbook
tc	879.64	K	Joback Method
tf	393.50 ± 0.50	K	NIST Webbook

vc	0.610	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	390.09	J/mol×K	631.93	Joback Method
cpg	456.04	J/mol×K	838.35	Joback Method
cpg	445.06	J/mol×K	797.07	Joback Method
cpg	433.04	J/mol×K	755.78	Joback Method
cpg	419.92	J/mol×K	714.50	Joback Method
cpg	405.63	J/mol×K	673.21	Joback Method
cpg	466.07	J/mol×K	879.64	Joback Method
dvisc	0.0001874	Pa×s	631.93	Joback Method
dvisc	0.0002356	Pa×s	587.08	Joback Method
dvisc	0.0003075	Pa×s	542.23	Joback Method
dvisc	0.0004210	Pa×s	497.38	Joback Method
dvisc	0.0006136	Pa×s	452.53	Joback Method
dvisc	0.0009716	Pa×s	407.68	Joback Method
dvisc	0.0017236	Pa×s	362.83	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	408.00 ± 5.00	K	0.40	NIST Webbook

Sources

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=C92911&Units=SI

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume