Methanone, [1,1'-biphenyl]-4-ylphenyl-

Other names:	Benzophenone, 4-phenyl-
	p-Benzoylbiphenyl
	4-Benzoylbiphenyl
	p-Biphenylyl phenyl ketone
	4-Biphenylyl phenyl ketone
	4-Diphenyl phenyl ketone
	p-Phenylbenzophenone
	4-Phenylbenzophenone
	Phenyl p-biphenylyl ketone
	4-Benzoyldiphenyl
	Eusolex 3490
	NSC 55283
	NSC 97365
	Trigonal 12
	4-(Phenylcarbonyl)biphenyl
Inchi:	InChI=1S/C19H14O/c20-19(17-9-5-2-6-10-17)18-13-11-16(12-14-18)15-7-3-1-4-8-15/h1-
InchiKey:	LYXOWKPVTCPORE-UHFFFAOYSA-N
Formula:	C19H14O
SMILES:	O=C(c1ccccc1)c1ccc(-c2ccccc2)cc1
Mol. weight [g/mol]:	258.31
CAS:	2128-93-0

Physical Properties

Property code	Value	Unit	Source
gf	307.78	kJ/mol	Joback Method
hf	150.05	kJ/mol	Joback Method
hfus	28.30	kJ/mol	Joback Method
hvap	72.12	kJ/mol	Joback Method
log10ws	-6.03		Crippen Method
logp	4.585		Crippen Method
mcvol	208.860	ml/mol	McGowan Method
pc	2497.50	kPa	Joback Method
tb	692.70	K	NIST Webbook
tc	1041.02	K	Joback Method
tf	376.00	K	NIST Webbook
vc	0.781	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	564.00	J/mol×K	773.01	Joback Method
cpg	629.15	J/mol×K	996.35	Joback Method
cpg	618.65	J/mol×K	951.68	Joback Method
cpg	607.02	J/mol×K	907.02	Joback Method
cpg	594.13	J/mol×K	862.35	Joback Method
cpg	579.83	J/mol×K	817.68	Joback Method
cpg	638.66	J/mol×K	1041.02	Joback Method
dvisc	0.0001139	Pa×s	773.01	Joback Method
dvisc	0.0001441	Pa×s	718.44	Joback Method
dvisc	0.0001896	Pa×s	663.87	Joback Method
dvisc	0.0002619	Pa×s	609.31	Joback Method
dvisc	0.0003855	Pa×s	554.74	Joback Method
dvisc	0.0006174	Pa×s	500.17	Joback Method
dvisc	0.0011096	Pa×s	445.60	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	430.00 ± 1.00	K	0.01	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=C2128930&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