Ethanone, 2-ethoxy-1,2-diphenyl-

Other names:	Acetophenone, 2-ethoxy-2-phenyl-
	Benzoin ethyl ether
	Ethyl benzoin ether
	2-Ethoxy-2-phenylacetophenone
	2-Ethoxybenzoin
	2-Ethoxy-1,2-diphenylethanone
	2-ethoxy-1,2-diphenylethan-1-one
Inchi:	InChI=1S/C16H16O2/c1-2-18-16(14-11-7-4-8-12-14)15(17)13-9-5-3-6-10-13/h3-12,16H,2
InchiKey:	KMNCBSZOIQAUFX-UHFFFAOYSA-N
Formula:	C16H16O2
SMILES:	CCOC(C(=O)c1ccccc1)c1ccccc1
Mol. weight [g/mol]:	240.30
CAS:	574-09-4

Physical Properties

Property code	Value	Unit	Source
gf	72.30	kJ/mol	Joback Method
hf	-150.59	kJ/mol	Joback Method
hfus	24.54	kJ/mol	Joback Method
hvap	64.53	kJ/mol	Joback Method
log10ws	-4.13		Crippen Method
logp	3.647		Crippen Method
mcvol	196.220	ml/mol	McGowan Method
pc	2407.64	kPa	Joback Method
rinpol	1913.00		NIST Webbook
tb	694.69	K	Joback Method
tc	932.29	K	Joback Method
tf	380.08	K	Joback Method
vc	0.734	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	519.39	J/mol×K	694.69	Joback Method

cpg	535.89	J/mol×K	734.29	Joback Method
cpg	551.08	J/mol×K	773.89	Joback Method
cpg	565.02	J/mol×K	813.49	Joback Method
cpg	577.78	J/mol×K	853.09	Joback Method
cpg	589.42	J/mol×K	892.69	Joback Method
cpg	599.99	J/mol×K	932.29	Joback Method
dvisc	0.0017325	Pa×s	380.08	Joback Method
dvisc	0.0008345	Pa×s	432.52	Joback Method
dvisc	0.0004708	Pa×s	484.95	Joback Method
dvisc	0.0002970	Pa×s	537.38	Joback Method
dvisc	0.0002033	Pa×s	589.82	Joback Method
dvisc	0.0001481	Pa×s	642.26	Joback Method
dvisc	0.0001132	Pa×s	694.69	Joback Method

Sources

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

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C574094&Units=SI

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

tc: Critical Temperature

tf: Normal melting (fusion) point

vc: Critical Volume