2-Propen-1-one, 1-phenyl-

Other names:	Acetophenone, 2-methylene-
	Acrylophenone
	Ethylene, benzoyl-
	Ketone, phenyl vinyl
	Phenyl vinyl ketone
	Vinyl phenyl ketone
	2-Propenophenone
	1-Phenyl-2-propen-1-one
	3-Oxo-3-phenylpropene
	NSC 174109
Inchi:	InChI=1S/C9H8O/c1-2-9(10)8-6-4-3-5-7-8/h2-7H,1H2
InchiKey:	KUIZKZHDMPERHR-UHFFFAOYSA-N
Formula:	C9H8O
SMILES:	C=CC(=O)c1ccccc1
Mol. weight [g/mol]:	132.16
CAS:	768-03-6

Physical Properties

Property code	Value	Unit	Source
gf	96.23	kJ/mol	Joback Method
hf	20.29	kJ/mol	Joback Method
hfus	13.43	kJ/mol	Joback Method
hvap	43.98	kJ/mol	Joback Method
log10ws	-2.40		Crippen Method
logp	2.055		Crippen Method
mcvol	111.180	ml/mol	McGowan Method
pc	3690.97	kPa	Joback Method
rinpol	1138.00		NIST Webbook
rinpol	1147.00		NIST Webbook
tb	482.55	K	Joback Method
tc	705.91	K	Joback Method
tf	265.78	K	Joback Method
vc	0.418	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	216.22	J/mol×K	482.55	Joback Method
cpg	228.41	J/mol×K	519.78	Joback Method
cpg	239.77	J/mol×K	557.00	Joback Method
cpg	250.34	J/mol×K	594.23	Joback Method
cpg	260.16	J/mol×K	631.46	Joback Method
cpg	269.27	J/mol×K	668.69	Joback Method
cpg	277.72	J/mol×K	705.91	Joback Method
dvisc	0.0027848	Pa×s	265.78	Joback Method
dvisc	0.0015013	Pa×s	301.91	Joback Method
dvisc	0.0009236	Pa×s	338.04	Joback Method
dvisc	0.0006241	Pa×s	374.16	Joback Method
dvisc	0.0004518	Pa×s	410.29	Joback Method
dvisc	0.0003447	Pa×s	446.42	Joback Method
dvisc	0.0002738	Pa×s	482.55	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=C768036&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