1-Penten-3-one, 1-phenyl-

Other names:	Benzylidenemethyl ethyl ketone
	Ethyl styryl ketone
	Ethyl 2-phenylvinyl ketone
	Styryl ethyl ketone
	1-Phenyl-1-penten-3-one
	1-phenylpent-1-en-3-one
Inchi:	InChI=1S/C11H12O/c1-2-11(12)9-8-10-6-4-3-5-7-10/h3-9H,2H2,1H3/b9-8+
InchiKey:	LVGUHATVVHIJET-CMDGGOBGSA-N
Formula:	C11H12O
SMILES:	CCC(=O)C=Cc1ccccc1
Mol. weight [g/mol]:	160.21
CAS:	3152-68-9

Physical Properties

Property code	Value	Unit	Source
gf	105.45	kJ/mol	Joback Method
hf	-29.20	kJ/mol	Joback Method
hfus	20.09	kJ/mol	Joback Method
hvap	49.06	kJ/mol	Joback Method
log10ws	-2.83		Crippen Method
logp	2.679		Crippen Method
mcvol	139.360	ml/mol	McGowan Method
pc	2992.59	kPa	Joback Method
tb	535.79	K	Joback Method
tc	757.15	K	Joback Method
tf	285.00	K	Joback Method
vc	0.529	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	303.19	J/mol×K	535.79	Joback Method
cpg	365.53	J/mol×K	720.26	Joback Method
cpg	354.78	J/mol×K	683.36	Joback Method

cpg	343.22	J/mol×K	646.47	Joback Method
cpg	330.81	J/mol×K	609.58	Joback Method
cpg	317.48	J/mol×K	572.68	Joback Method
cpg	375.54	J/mol×K	757.15	Joback Method
dvisc	0.0002065	Pa×s	535.79	Joback Method
dvisc	0.0002659	Pa×s	493.99	Joback Method
dvisc	0.0003588	Pa×s	452.19	Joback Method
dvisc	0.0005148	Pa×s	410.39	Joback Method
dvisc	0.0008014	Pa×s	368.60	Joback Method
dvisc	0.0013973	Pa×s	326.80	Joback Method
dvisc	0.0028677	Pa×s	285.00	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	417.00 ± 1.00	K	1.60	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=C3152689&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