1-Decanone, 1-phenyl-

Other names:	Capriphenone
	Decanophenone
	n-Decanophenone
	Ketone, nonyl phenyl
	1-Phenyl-1-decanone
	1-Phenyldecan-1-one
Inchi:	InChI=1S/C16H24O/c1-2-3-4-5-6-7-11-14-16(17)15-12-9-8-10-13-15/h8-10,12-13H,2-7,1
InchiKey:	QQXJNLYVPPBERR-UHFFFAOYSA-N
Formula:	C16H24O
SMILES:	CCCCCCCCCC(=O)c1ccccc1
Mol. weight [g/mol]:	232.36
CAS:	6048-82-4

Physical Properties

Property code	Value	Unit	Source
gf	67.33	kJ/mol	Joback Method
hf	-249.62	kJ/mol	Joback Method
hfus	32.84	kJ/mol	Joback Method
hvap	60.23	kJ/mol	Joback Method
log10ws	-5.48		Crippen Method
logp	5.010		Crippen Method
mcvol	214.110	ml/mol	McGowan Method
pc	1795.46	kPa	Joback Method
rinpol	1903.00		NIST Webbook
tb	646.03	K	Joback Method
tc	842.64	K	Joback Method
tf	346.43	K	Joback Method
vc	0.830	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	571.38	J/mol×K	646.03	Joback Method
cpg	649.78	J/mol×K	809.87	Joback Method

cpg	635.91	J/mol×K	777.10	Joback Method
cpg	621.18	J/mol×K	744.33	Joback Method
cpg	605.54	J/mol×K	711.57	Joback Method
cpg	588.95	J/mol×K	678.80	Joback Method
cpg	662.82	J/mol×K	842.64	Joback Method
dvisc	0.0001557	Pa×s	646.03	Joback Method
dvisc	0.0002044	Pa×s	596.10	Joback Method
dvisc	0.0002819	Pa×s	546.16	Joback Method
dvisc	0.0004148	Pa×s	496.23	Joback Method
dvisc	0.0006656	Pa×s	446.30	Joback Method
dvisc	0.0012028	Pa×s	396.36	Joback Method
dvisc	0.0025783	Pa×s	346.43	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	441.20	K	0.70	NIST Webbook

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C6048824&Units=SI
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

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