Dodecanophenone

Other names:	n-Dodecanophenone
	Undecyl phenyl ketone
	Laurophenone
	1-Dodecanone, 1-phenyl-
	Phenyl n-undecyl ketone
	Phenyl undecyl ketone
	1-Phenyl-1-dodecanone
	1-phenyldodecan-1-one
Inchi:	InChI=1S/C18H28O/c1-2-3-4-5-6-7-8-9-13-16-18(19)17-14-11-10-12-15-17/h10-12,14-15
InchiKey:	DJNJZIFFCJTUDS-UHFFFAOYSA-N
Formula:	C18H28O
SMILES:	CCCCCCCCCCCC(=O)c1ccccc1
Mol. weight [g/mol]:	260.41
CAS:	1674-38-0

Physical Properties

Property code	Value	Unit	Source
gf	84.17	kJ/mol	Joback Method
hf	-290.90	kJ/mol	Joback Method
hfus	38.02	kJ/mol	Joback Method
hvap	64.68	kJ/mol	Joback Method
log10ws	-6.32		Crippen Method
logp	5.790		Crippen Method
mcvol	242.290	ml/mol	McGowan Method
pc	1535.46	kPa	Joback Method
tb	691.79	K	Joback Method
tc	884.45	K	Joback Method
tf	316.15 ± 2.00	K	NIST Webbook
vc	0.942	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	681.08	J/mol×K	691.79	Joback Method

cpg	762.35	J/mol×K	852.34	Joback Method
cpg	747.95	J/mol×K	820.23	Joback Method
cpg	732.66	J/mol×K	788.12	Joback Method
cpg	716.45	J/mol×K	756.01	Joback Method
cpg	699.27	J/mol×K	723.90	Joback Method
cpg	775.91	J/mol×K	884.45	Joback Method
dvisc	0.0001242	Pa×s	691.79	Joback Method
dvisc	0.0001641	Pa×s	637.99	Joback Method
dvisc	0.0002282	Pa×s	584.18	Joback Method
dvisc	0.0003393	Pa×s	530.38	Joback Method
dvisc	0.0005518	Pa×s	476.58	Joback Method
dvisc	0.0010158	Pa×s	422.77	Joback Method
dvisc	0.0022340	Pa×s	368.97	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	487.70	K	2.10	NIST Webbook

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C1674380&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
McGowan Method: http://link.springer.com/article/10.1007/BF02311772

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