Methanone, 2-naphthalenylphenyl-

Other names:	2-Benzoylnaphthalene
	«beta»-Naphthyl phenyl ketone
	2-Naphthyl phenyl ketone
	«beta»-Benzoylnaphthalene
	Ketone, 2-naphthyl phenyl
	2-Benzonaphthone
	2'-benzonaphthone
Inchi:	InChI=1S/C17H12O/c18-17(14-7-2-1-3-8-14)16-11-10-13-6-4-5-9-15(13)12-16/h1-12H
InchiKey:	SJNXJRVDSTZUFB-UHFFFAOYSA-N
Formula:	C17H12O
SMILES:	O=C(c1ccccc1)c1ccc2ccccc2c1
Mol. weight [g/mol]:	232.28
CAS:	644-13-3

Physical Properties

Property code	Value	Unit	Source
gf	285.18	kJ/mol	Joback Method
hf	145.87	kJ/mol	Joback Method
hfus	26.10	kJ/mol	Joback Method
hvap	67.04	kJ/mol	Joback Method
log10ws	-5.23		Crippen Method
logp	4.071		Crippen Method
mcvol	184.980	ml/mol	McGowan Method
pc	2784.72	kPa	Joback Method
tb	719.55	K	Joback Method
tc	981.19	K	Joback Method
tf	429.34	K	Joback Method
vc	0.700	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	478.05	J/mol×K	719.55	Joback Method
cpg	493.00	J/mol×K	763.16	Joback Method

cpg	506.61	J/mol×K	806.76	Joback Method
cpg	519.02	J/mol×K	850.37	Joback Method
cpg	530.39	J/mol×K	893.98	Joback Method
cpg	540.84	J/mol×K	937.58	Joback Method
cpg	550.54	J/mol×K	981.19	Joback Method
dvisc	0.0014855	Pa×s	429.34	Joback Method
dvisc	0.0009545	Pa×s	477.71	Joback Method
dvisc	0.0006653	Pa×s	526.08	Joback Method
dvisc	0.0004928	Pa×s	574.44	Joback Method
dvisc	0.0003824	Pa×s	622.81	Joback Method
dvisc	0.0003078	Pa×s	671.18	Joback Method
dvisc	0.0002551	Pa×s	719.55	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	490.20	K	0.90	NIST Webbook
tbrp	671.20	K	101.00	NIST Webbook

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=C644133&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
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume