2-Hydroxy-1-naphthylphenyl ketone

Other names: 1-Benzoyl-2-naphthol
Inchi: InChI=1S/C17H12O2/c18-15-11-10-12-6-4-5-9-14(12)16(15)17(19)13-7-2-1-3-8-13/h1-11
InchiKey: QWQNERTZFZXGFS-UHFFFAOYSA-N
Formula: C17H12O2
SMILES: O=C(c1ccccc1)c1c(O)ccc2ccccc12
Mol. weight [g/mol]: 248.28
CAS: 6333-07-9

Physical Properties

Property code	Value	Unit	Source
gf	130.56	kJ/mol	Joback Method
hf	-31.44	kJ/mol	Joback Method
hfus	31.88	kJ/mol	Joback Method
hvap	80.05	kJ/mol	Joback Method
log10ws	-4.78		Crippen Method
logp	3.776		Crippen Method
mcvol	190.850	ml/mol	McGowan Method
pc	3280.28	kPa	Joback Method
tb	800.17	K	Joback Method
tc	1067.14	K	Joback Method
tf	414.05 ± 0.10	K	NIST Webbook
vc	0.665	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	593.84	J/mol×K	1067.14	Joback Method
cpg	523.47	J/mol×K	800.17	Joback Method
cpg	536.43	J/mol×K	844.66	Joback Method
cpg	548.61	J/mol×K	889.16	Joback Method
cpg	560.21	J/mol×K	933.65	Joback Method
cpg	571.47	J/mol×K	978.15	Joback Method
cpg	582.60	J/mol×K	1022.64	Joback Method
dvisc	0.0000162	Pa×s	800.17	Joback Method

dvisc	0.0002242	Pa×s	541.06	Joback Method
dvisc	0.0001231	Pa×s	584.25	Joback Method
dvisc	0.0000734	Pa×s	627.43	Joback Method
dvisc	0.0000468	Pa×s	670.62	Joback Method
dvisc	0.0000315	Pa×s	713.80	Joback Method
dvisc	0.0000222	Pa×s	756.99	Joback Method
hfust	31.35	kJ/mol	414.10	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=C6333079&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
hfust:	Enthalpy of fusion at a given temperature
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
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume