Ethanone, 1-(2-hydroxy-1-naphthalenyl)-

Other names:	1'-Acetonaphthone, 2'-hydroxy-
	1-Acetyl-2-hydroxynaphthlene
	1-Acetyl-2-naphthol
	2'-Hydroxy-1'-acetonaphthone
	1-Acetylnaphthalen-2-ol
	1-(2-hydroxy-1-naphthyl)ethan-1-one
Inchi:	InChI=1S/C12H10O2/c1-8(13)12-10-5-3-2-4-9(10)6-7-11(12)14/h2-7,14H,1H3
InchiKey:	VUIOUIWZVKVFCI-UHFFFAOYSA-N
Formula:	C11H10O2
SMILES:	CC(=O)c1c(O)ccc2ccccc12
Mol. weight [g/mol]:	174.20
CAS:	574-19-6

Physical Properties

Property code	Value	Unit	Source
gf	-23.95	kJ/mol	Joback Method
hf	-164.77	kJ/mol	Joback Method
hfus	24.89	kJ/mol	Joback Method
hvap	66.64	kJ/mol	Joback Method
log10ws	-3.48		Crippen Method
logp	2.748		Crippen Method
mcvol	144.160	ml/mol	McGowan Method
pc	3920.94	kPa	Joback Method
tb	659.09	K	Joback Method
tc	906.83	K	Joback Method
tf	336.90 ± 0.01	K	NIST Webbook
vc	0.493	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	409.89	J/mol×K	865.54	Joback Method
cpg	418.49	J/mol×K	906.83	Joback Method
cpg	359.32	J/mol×K	659.09	Joback Method

cpg	370.92	J/mol×K	700.38	Joback Method
cpg	381.63	J/mol×K	741.67	Joback Method
cpg	391.60	J/mol×K	782.96	Joback Method
cpg	400.97	J/mol×K	824.25	Joback Method
dvisc	0.0000441	Pa×s	659.09	Joback Method
dvisc	0.0000604	Pa×s	625.62	Joback Method
dvisc	0.0005830	Pa×s	458.29	Joback Method
dvisc	0.0003275	Pa×s	491.76	Joback Method
dvisc	0.0001980	Pa×s	525.22	Joback Method
dvisc	0.0001271	Pa×s	558.69	Joback Method
dvisc	0.0000858	Pa×s	592.16	Joback Method
hfust	21.34	kJ/mol	337.00	NIST Webbook
hfust	21.34	kJ/mol	337.00	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=C574196&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
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