2-Hydroxy-5-methylbenzophenone

Other names: Methanone, (2-hydroxy-5-methylphenyl)phenyl-
(2-Hydroxy-5-methylphenyl)phenylmethanone
Benzophenone, 2-hydroxy-5-methyl-
5-Methyl-2-hydroxybenzophenone
2-Benzoyl-4-methylphenol
Inchi: InChI=1S/C14H12O2/c1-10-7-8-13(15)12(9-10)14(16)11-5-3-2-4-6-11/h2-9,15H,1H3
InchiKey: OQERFUGURPLBQH-UHFFFAOYSA-N
Formula: C14H12O2
SMILES: Cc1ccc(O)c(C(=O)c2ccccc2)c1
Mol. weight [g/mol]: 212.24
CAS: 1470-57-1

Physical Properties

Property code	Value	Unit	Source
gf	-1.35	kJ/mol	Joback Method
hf	-160.59	kJ/mol	Joback Method
hfus	27.09	kJ/mol	Joback Method
hvap	71.73	kJ/mol	Joback Method
log10ws	-3.45		Crippen Method
logp	2.932		Crippen Method
mcvol	168.040	ml/mol	McGowan Method
pc	3448.03	kPa	Joback Method
tb	712.55	K	Joback Method
tc	967.64	K	Joback Method
tf	474.55	K	Joback Method
vc	0.576	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	438.51	J/mol×K	712.55	Joback Method
cpg	451.78	J/mol×K	755.07	Joback Method
cpg	464.04	J/mol×K	797.58	Joback Method
cpg	475.43	J/mol×K	840.10	Joback Method

cpg	486.10	J/mol×K	882.61	Joback Method
cpg	496.18	J/mol×K	925.13	Joback Method
cpg	505.82	J/mol×K	967.64	Joback Method
dvisc	0.0003647	Pa×s	474.55	Joback Method
dvisc	0.0001783	Pa×s	514.22	Joback Method
dvisc	0.0000965	Pa×s	553.88	Joback Method
dvisc	0.0000568	Pa×s	593.55	Joback Method
dvisc	0.0000357	Pa×s	633.22	Joback Method
dvisc	0.0000237	Pa×s	672.88	Joback Method
dvisc	0.0000164	Pa×s	712.55	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C1470571&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
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume