1-Butanone, 1-(4-hydroxyphenyl)-

Other names:	1-(4-hydroxyphenyl)-1-butanone
	1-(4-hydroxyphenyl)butan-1-one
	4'-hydroxybutyrophenone
	4-Butanoylphenol
	4-Butyrylphenol
	4-Hydroxybutyrophenone
	Butyrophenone, 4'-hydroxy-
	NSC 17548
	p-Butyrylphenol
	p-Hydroxyphenyl propyl ketone
	p-hydroxybutyrophenone
Inchi:	InChI=1S/C10H12O2/c1-2-3-10(12)8-4-6-9(11)7-5-8/h4-7,11H,2-3H2,1H3
InchiKey:	GFBLPULLSAPXDC-UHFFFAOYSA-N
Formula:	C10H12O2
SMILES:	CCCC(=O)c1ccc(O)cc1
Mol. weight [g/mol]:	164.20
CAS:	1009-11-6

Physical Properties

Property code	Value	Unit	Source
gf	-137.81	kJ/mol	Joback Method
hf	-303.09	kJ/mol	Joback Method
hfus	23.08	kJ/mol	Joback Method
hvap	59.89	kJ/mol	Joback Method
log10ws	-2.52		Crippen Method
logp	2.375		Crippen Method
mcvol	135.440	ml/mol	McGowan Method
pc	3740.80	kPa	Joback Method
tb	589.37	K	Joback Method
tc	815.81	K	Joback Method
tf	364.70	K	Thermochemistry of 4-HOC6H4COR (R = H, CH3, C2H5, n-C3H7, n-C4H9, n-C5H11, and n-C6H13) compounds
vc	0.460	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	327.20	J/mol×K	589.37	Joback Method
cpg	381.12	J/mol×K	778.07	Joback Method
cpg	371.74	J/mol×K	740.33	Joback Method
cpg	361.74	J/mol×K	702.59	Joback Method
cpg	351.04	J/mol×K	664.85	Joback Method
cpg	339.55	J/mol×K	627.11	Joback Method
cpg	389.96	J/mol×K	815.81	Joback Method
dvisc	0.0000452	Pa×s	589.37	Joback Method
dvisc	0.0000681	Pa×s	556.23	Joback Method
dvisc	0.0001079	Pa×s	523.09	Joback Method
dvisc	0.0001821	Pa×s	489.95	Joback Method
dvisc	0.0003314	Pa×s	456.81	Joback Method
dvisc	0.0006624	Pa×s	423.67	Joback Method
dvisc	0.0014890	Pa×s	390.53	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C1009116&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Thermochemistry of 4-HOC6H4COR (R = H, CH3, C2H5, n-C3H7, n-C4H9, n-C5H11, and n-C6H13) compounds:	https://www.doi.org/10.1016/j.jct.2016.09.026
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
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume