Benzoic acid, 2-(2-hydroxybenzoyl)-

Other names:	Benzoic acid, o-salicyloyl- o-(2-Hydroxybenzoyl)benzoic acid Benzophenone, 2-carboxy-2'-hydroxy- 2-(2-Hydroxybenzoyl)benzoic acid Benzoic acid, o-(2-hydroxybenzoyl)-
Inchi:	InChI=1S/C14H10O4/c15-12-8-4-3-7-11(12)13(16)9-5-1-2-6-10(9)14(17)18/h1-8,15H,(H,
InchiKey:	HNRPIUDTZLIYEC-UHFFFAOYSA-N
Formula:	C14H10O4
SMILES:	O=C(O)c1ccccc1C(=O)c1ccccc1O
Mol. weight [g/mol]:	242.23
CAS:	6079-73-8

Physical Properties

Property code	Value	Unit	Source
gf	-267.09	kJ/mol	Joback Method
hf	-425.40	kJ/mol	Joback Method
hfus	32.78	kJ/mol	Joback Method
hvap	95.16	kJ/mol	Joback Method
log10ws	-3.04		Crippen Method
logp	2.321		Crippen Method
mcvol	175.480	ml/mol	McGowan Method
pc	4173.09	kPa	Joback Method
tb	858.60	K	Joback Method
tc	1097.45	K	Joback Method
tf	585.30	K	Joback Method
vc	0.601	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	489.80	J/mol×K	858.60	Joback Method
cpg	499.04	J/mol×K	898.41	Joback Method
cpg	507.78	J/mol×K	938.22	Joback Method
cpg	516.14	J/mol×K	978.03	Joback Method

cpg	524.24	J/mol×K	1017.83	Joback Method
cpg	532.19	J/mol×K	1057.64	Joback Method
cpg	540.10	J/mol×K	1097.45	Joback Method
dvisc	0.0000517	Pa×s	585.30	Joback Method
dvisc	0.0000236	Pa×s	630.85	Joback Method
dvisc	0.0000119	Pa×s	676.40	Joback Method
dvisc	0.0000066	Pa×s	721.95	Joback Method
dvisc	0.0000039	Pa×s	767.50	Joback Method
dvisc	0.0000025	Pa×s	813.05	Joback Method
dvisc	0.0000016	Pa×s	858.60	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C6079738&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