2-Hydroxy-3-phenylbenzoic acid

Other names: 3-Phenylsalicylic acid
[1,1'-Biphenyl]-3-carboxylic acid, 2-hydroxy-
m-Phenylsalicylic acid
Salicylic acid, 3-phenyl-
USAF do-59
3-Biphenylcarboxylic acid, 2-hydroxy-
2-Hydroxy[1,1'-biphenyl]-3-carboxylic acid
Inchi: InChI=1S/C13H10O3/c14-12-10(9-5-2-1-3-6-9)7-4-8-11(12)13(15)16/h1-8,14H,(H,15,16)
InchiKey: ZJWUEJOPKFYFQD-UHFFFAOYSA-N
Formula: C13H10O3
SMILES: O=C(O)c1cccc(-c2ccccc2)c1O
Mol. weight [g/mol]: 214.22
CAS: 304-06-3

Physical Properties

Property code	Value	Unit	Source
gf	-146.59	kJ/mol	Joback Method
hf	-292.18	kJ/mol	Joback Method
hfus	28.59	kJ/mol	Joback Method
hvap	86.19	kJ/mol	Joback Method
log10ws	-3.68		Crippen Method
logp	2.757		Crippen Method
mcvol	159.820	ml/mol	McGowan Method
pc	4356.87	kPa	Joback Method
tb	781.85	K	Joback Method
tc	1019.61	K	Joback Method
tf	524.10	K	Joback Method
vc	0.538	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	431.77	J/mol×K	781.85	Joback Method
cpg	476.03	J/mol×K	979.99	Joback Method

cpg	467.98	J/mol×K	940.36	Joback Method
cpg	459.64	J/mol×K	900.73	Joback Method
cpg	450.90	J/mol×K	861.10	Joback Method
cpg	441.64	J/mol×K	821.48	Joback Method
cpg	483.92	J/mol×K	1019.61	Joback Method
dvisc	0.0000027	Pa×s	781.85	Joback Method
dvisc	0.0000043	Pa×s	738.89	Joback Method
dvisc	0.0000071	Pa×s	695.93	Joback Method
dvisc	0.0000125	Pa×s	652.98	Joback Method
dvisc	0.0000239	Pa×s	610.02	Joback Method
dvisc	0.0000506	Pa×s	567.06	Joback Method
dvisc	0.0001208	Pa×s	524.10	Joback Method

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=C304063&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
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