

2-Hydroxy-1-naphthoic acid

Other names:	1-Naphthalenecarboxylic acid, 2-hydroxy- 1-Naphthoic acid, 2-hydroxy-
Inchi:	InChI=1S/C11H8O3/c12-9-6-5-7-3-1-2-4-8(7)10(9)11(13)14/h1-6,12H,(H,13,14)
InchiKey:	UPHOPMSGKZNELG-UHFFFAOYSA-N
Formula:	C11H8O3
SMILES:	O=C(O)c1c(O)ccc2ccccc12
Mol. weight [g/mol]:	188.18
CAS:	2283-08-1

Physical Properties

Property code	Value	Unit	Source
gf	-169.19	kJ/mol	Joback Method
hf	-296.36	kJ/mol	Joback Method
hfus	26.39	kJ/mol	Joback Method
hvap	81.10	kJ/mol	Joback Method
log10ws	-2.88		Crippen Method
logp	2.244		Crippen Method
mvol	135.940	ml/mol	McGowan Method
pc	5037.07	kPa	Joback Method
tb	728.39	K	Joback Method
tc	959.41	K	Joback Method
tf	507.84	K	Joback Method
vc	0.457	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	351.94	J/mol×K	728.39	Joback Method
cpg	390.10	J/mol×K	920.91	Joback Method
cpg	383.03	J/mol×K	882.40	Joback Method
cpg	375.80	J/mol×K	843.90	Joback Method
cpg	368.28	J/mol×K	805.40	Joback Method
cpg	360.37	J/mol×K	766.89	Joback Method
cpg	397.12	J/mol×K	959.41	Joback Method

dvisc	0.0000084	Paxs	728.39	Joback Method
dvisc	0.0000126	Paxs	691.63	Joback Method
dvisc	0.0000197	Paxs	654.87	Joback Method
dvisc	0.0000324	Paxs	618.12	Joback Method
dvisc	0.0000570	Paxs	581.36	Joback Method
dvisc	0.0001080	Paxs	544.60	Joback Method
dvisc	0.0002246	Paxs	507.84	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C2283081&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

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