2,7-Naphthalenediol

Other names:	2,7-dihydroxynaphthalene
	C.I. 76645
	CI 76645
	Naphthalene-2,7-Diol
	Naphthalenediol-(2,7)
	naphthalene, 2,7-dihydroxy-
Inchi:	InChI=1S/C10H8O2/c11-9-3-1-7-2-4-10(12)6-8(7)5-9/h1-6,11-12H
InchiKey:	DFQICHCWIIJABH-UHFFFAOYSA-N
Formula:	C10H8O2
SMILES:	Oc1ccc2ccc(O)cc2c1
Mol. weight [g/mol]:	160.17
CAS:	582-17-2

Physical Properties

Property code	Value	Unit	Source
chs	-4752.30 ± 1.10	kJ/mol	NIST Webbook
gf	-56.86	kJ/mol	Joback Method
hf	-176.75	kJ/mol	Joback Method
hfs	-326.10 ± 1.70	kJ/mol	NIST Webbook
hfus	24.28	kJ/mol	Joback Method
hvap	67.80	kJ/mol	Joback Method
log10ws	-2.37		Crippen Method
logp	2.251		Crippen Method
mcvol	120.280	ml/mol	McGowan Method
pc	5880.91	kPa	Joback Method
tb	635.10	K	Joback Method
tc	895.57	K	Joback Method
tf	485.02	K	Joback Method
vc	0.342	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	299.04	J/mol×K	635.10	Joback Method

cpg	308.81	J/mol×K	678.51	Joback Method
cpg	317.75	J/mol×K	721.92	Joback Method
cpg	326.08	J/mol×K	765.34	Joback Method
cpg	334.05	J/mol×K	808.75	Joback Method
cpg	341.88	J/mol×K	852.16	Joback Method
cpg	349.82	J/mol×K	895.57	Joback Method
dvisc	0.0001338	Pa×s	485.02	Joback Method
dvisc	0.0000728	Pa×s	510.03	Joback Method
dvisc	0.0000420	Pa×s	535.05	Joback Method
dvisc	0.0000254	Pa×s	560.06	Joback Method
dvisc	0.0000161	Pa×s	585.07	Joback Method
dvisc	0.0000105	Pa×s	610.09	Joback Method
dvisc	0.0000071	Pa×s	635.10	Joback Method

Sources

Solubility of 2,7-Dihydroxynaphthalene in Binary Sodium Chloride + Water, Sodium Sulfate + Water, and Ethanol + Water Solvent Mixtures at Elevated Temperatures:	https://www.doi.org/10.1021/je200530g
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=C582172&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

Legend

chs:	Standard solid enthalpy of combustion
cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfs:	Solid phase 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