

4-Vinylbenzoic acid

Other names:	p-Vinylbenzoic acid Benzoic acid, 4-ethenyl- 4-Ethenyl-benzoic acid
Inchi:	InChI=1S/C9H8O2/c1-2-7-3-5-8(6-4-7)9(10)11/h2-6H,1H2,(H,10,11)
InchiKey:	IRQWEODKXLDORP-UHFFFAOYSA-N
Formula:	C9H8O2
SMILES:	C=Cc1ccc(C(=O)O)cc1
Mol. weight [g/mol]:	148.16
CAS:	1075-49-6

Physical Properties

Property code	Value	Unit	Source
gf	-50.22	kJ/mol	Joback Method
hf	-143.41	kJ/mol	Joback Method
hfus	17.12	kJ/mol	Joback Method
hvap	61.32	kJ/mol	Joback Method
log10ws	-2.36		Crippen Method
logp	2.028		Crippen Method
mcvol	117.050	ml/mol	McGowan Method
pc	4062.13	kPa	Joback Method
tb	579.71	K	Joback Method
tc	787.98	K	Joback Method
tf	339.12	K	Joback Method
vc	0.438	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	260.48	J/mol×K	579.71	Joback Method
cpg	302.28	J/mol×K	753.26	Joback Method
cpg	295.02	J/mol×K	718.55	Joback Method
cpg	287.25	J/mol×K	683.84	Joback Method
cpg	278.92	J/mol×K	649.13	Joback Method
cpg	270.01	J/mol×K	614.42	Joback Method

cpg	309.04	J/mol×K	787.98	Joback Method
dvisc	0.0001083	Pa×s	579.71	Joback Method
dvisc	0.0001599	Pa×s	539.61	Joback Method
dvisc	0.0002514	Pa×s	499.51	Joback Method
dvisc	0.0004277	Pa×s	459.42	Joback Method
dvisc	0.0008053	Pa×s	419.32	Joback Method
dvisc	0.0017337	Pa×s	379.22	Joback Method
dvisc	0.0044744	Pa×s	339.12	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C1075496&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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