1,2-Benzenedicarboxaldehyde

Other names:	Phthalic dicarboxaldehyde
	o-Phthalaldehyde
	o-Phthalicdicarboxaldehyde
	Phthaldialdehyde
	Phthalaldialdehyde
	o-Phthaldehyde
	o-Phthaldialdehyde
	Phthalaldehyde
	Phthalic aldehyde
	Phthalic dialdehyde
	Phthalyldicarboxaldehyde
	1,2-Diformylbenzene
	NSC 13394
Inchi:	InChI=1S/C8H6O2/c9-5-7-3-1-2-4-8(7)6-10/h1-6H
InchiKey:	ZWLUXSQADUDCSB-UHFFFAOYSA-N
Formula:	C8H6O2
SMILES:	O=Cc1ccccc1C=O
Mol. weight [g/mol]:	134.13
CAS:	643-79-8

Physical Properties

Property code	Value	Unit	Source
gf	-79.78	kJ/mol	Joback Method
hf	-154.55	kJ/mol	Joback Method
hfus	14.71	kJ/mol	Joback Method
hvap	49.78	kJ/mol	Joback Method
log10ws	-1.95		Crippen Method
logp	1.312		Crippen Method
mcvol	102.960	ml/mol	McGowan Method
pc	4316.89	kPa	Joback Method
tb	511.42	K	Joback Method
tc	733.14	K	Joback Method
tf	302.86	K	Joback Method
vc	0.409	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	208.76	J/mol×K	511.42	Joback Method
cpg	218.33	J/mol×K	548.37	Joback Method
cpg	227.27	J/mol×K	585.33	Joback Method
cpg	235.61	J/mol×K	622.28	Joback Method
cpg	243.38	J/mol×K	659.23	Joback Method
cpg	250.59	J/mol×K	696.19	Joback Method
cpg	257.27	J/mol×K	733.14	Joback Method
dvisc	0.0025093	Pa×s	302.86	Joback Method
dvisc	0.0015427	Pa×s	337.62	Joback Method
dvisc	0.0010385	Pa×s	372.38	Joback Method
dvisc	0.0007480	Pa×s	407.14	Joback Method
dvisc	0.0005673	Pa×s	441.90	Joback Method
dvisc	0.0004480	Pa×s	476.66	Joback Method
dvisc	0.0003653	Pa×s	511.42	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C643798&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