Carbonic acid, ethyl phenyl ester

Other names:	Ethyl phenyl carbonate
	Phenyl ethyl carbonate
Inchi:	InChI=1S/C9H10O3/c1-2-11-9(10)12-8-6-4-3-5-7-8/h3-7H,2H2,1H3
InchiKey:	YCNSGSUGQPDYTK-UHFFFAOYSA-N
Formula:	C9H10O3
SMILES:	CCOC(=O)Oc1ccccc1
Mol. weight [g/mol]:	166.17
CAS:	3878-46-4

Physical Properties

Property code	Value	Unit	Source
gf	-201.61	kJ/mol	Joback Method
hf	-369.58	kJ/mol	Joback Method
hfus	17.08	kJ/mol	Joback Method
hvap	49.47	kJ/mol	Joback Method
log10ws	-2.27		Crippen Method
logp	2.222		Crippen Method
mcvol	127.220	ml/mol	McGowan Method
pc	3372.36	kPa	Joback Method
rinpol	1233.00		NIST Webbook
rinpol	1233.00		NIST Webbook
tb	530.71	K	Joback Method
tc	744.61	K	Joback Method
tf	312.00	K	Joback Method
vc	0.473	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	279.36	J/mol×K	530.71	Joback Method
cpg	334.79	J/mol×K	708.96	Joback Method
cpg	324.98	J/mol×K	673.31	Joback Method
cpg	314.53	J/mol×K	637.66	Joback Method
cpg	303.45	J/mol×K	602.01	Joback Method

cpg	291.72	J/mol×K	566.36	Joback Method
cpg	343.96	J/mol×K	744.61	Joback Method
dvisc	0.0001920	Pa×s	530.71	Joback Method
dvisc	0.0002425	Pa×s	494.26	Joback Method
dvisc	0.0003179	Pa×s	457.81	Joback Method
dvisc	0.0004369	Pa×s	421.36	Joback Method
dvisc	0.0006375	Pa×s	384.90	Joback Method
dvisc	0.0010069	Pa×s	348.45	Joback Method
dvisc	0.0017696	Pa×s	312.00	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C3878464&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
rinpol: Non-polar retention indices
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume