Carbonic acid, O(1)-benzyl-O(2)-ethyl(ester)

Other names: Benzyl ethyl carbonate
Inchi: InChI=1S/C10H12O3/c1-2-12-10(11)13-8-9-6-4-3-5-7-9/h3-7H,2,8H2,1H3
InchiKey: FJLGSLSITVQVRJ-UHFFFAOYSA-N
Formula: C10H12O3
SMILES: CCOC(=O)OCc1ccccc1
Mol. weight [g/mol]: 180.20
CAS: 22768-02-1

Physical Properties

Property code	Value	Unit	Source
gf	-193.19	kJ/mol	Joback Method
hf	-390.22	kJ/mol	Joback Method
hfus	19.67	kJ/mol	Joback Method
hvap	51.70	kJ/mol	Joback Method
log10ws	-2.53		Crippen Method
logp	2.360		Crippen Method
mcvol	141.310	ml/mol	McGowan Method
pc	3025.61	kPa	Joback Method
rinpol	1340.00		NIST Webbook
tb	553.59	K	Joback Method
tc	764.02	K	Joback Method
tf	323.27	K	Joback Method
vc	0.529	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	324.39	J/mol×K	553.59	Joback Method
cpg	337.72	J/mol×K	588.66	Joback Method
cpg	350.35	J/mol×K	623.73	Joback Method
cpg	362.28	J/mol×K	658.81	Joback Method
cpg	373.51	J/mol×K	693.88	Joback Method
cpg	384.06	J/mol×K	728.95	Joback Method
cpg	393.92	J/mol×K	764.02	Joback Method

dvisc	0.0017440	Pa×s	323.27	Joback Method
dvisc	0.0009735	Pa×s	361.66	Joback Method
dvisc	0.0006077	Pa×s	400.04	Joback Method
dvisc	0.0004120	Pa×s	438.43	Joback Method
dvisc	0.0002974	Pa×s	476.82	Joback Method
dvisc	0.0002253	Pa×s	515.20	Joback Method
dvisc	0.0001774	Pa×s	553.59	Joback Method

Sources

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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C22768021&Units=SI

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