Diethyl pyrocarbonate

Other names:	Diethyl oxydiformate
	Dicarbonic acid, diethyl ester
	Formic acid, oxydi-, diethyl ester
	Baycovin
	Depc
	Diethyl dicarbonate
	Diethylester kyseliny diuhlicite
	Diethyl ester of pyrocarbonic acid
	Diethyl pyrocarbonic acid
	Diethylpyrokarbonat
	DKD
	Ethyl pyrocarbonate
	Oxydiformic acid diethyl ester
	Piref
	Pyrocarbonate d'ethyle
	Pyrocarbonic acid, diethyl ester
	Pyrokohlensaeure diaethyl ester
Inchi:	InChI=1S/C6H10O5/c1-3-9-5(7)11-6(8)10-4-2/h3-4H2,1-2H3
InchiKey:	FFYPMLJYZAEMQB-UHFFFAOYSA-N
Formula:	C6H10O5
SMILES:	CCOC(=O)OC(=O)OCC
Mol. weight [g/mol]:	162.14
CAS:	1609-47-8

Physical Properties

Property code	Value	Unit	Source
gf	-573.20	kJ/mol	Joback Method
hf	-788.99	kJ/mol	Joback Method
hfus	18.06	kJ/mol	Joback Method
hvap	49.67	kJ/mol	Joback Method
log10ws	-1.10		Crippen Method
logp	1.316		Crippen Method
mcvol	116.150	ml/mol	McGowan Method
pc	3384.14	kPa	Joback Method
tb	511.68	K	Joback Method
tc	698.40	K	Joback Method
tf	323.93	K	Joback Method

vc	0.438	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	257.98	J/mol×K	511.68	Joback Method
cpg	267.24	J/mol×K	542.80	Joback Method
cpg	276.25	J/mol×K	573.92	Joback Method
cpg	284.99	J/mol×K	605.04	Joback Method
cpg	293.42	J/mol×K	636.16	Joback Method
cpg	301.54	J/mol×K	667.28	Joback Method
cpg	309.31	J/mol×K	698.40	Joback Method
dvisc	0.0015736	Pa×s	323.93	Joback Method
dvisc	0.0009820	Pa×s	355.22	Joback Method
dvisc	0.0006614	Pa×s	386.51	Joback Method
dvisc	0.0004727	Pa×s	417.81	Joback Method
dvisc	0.0003540	Pa×s	449.10	Joback Method
dvisc	0.0002752	Pa×s	480.39	Joback Method
dvisc	0.0002207	Pa×s	511.68	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	366.70	K	2.40	NIST Webbook

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C1609478&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

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

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
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume