1,2-Cyclopropanedicarboxylic acid, 3-methylene-, diethyl ester

Other names: Diethyl 3-methylenecyclopropane-1,2-dicarboxylate
Inchi: InChI=1S/C10H14O4/c1-4-13-9(11)7-6(3)8(7)10(12)14-5-2/h7-8H,3-5H2,1-2H3
InchiKey: VOHSAQPFAZSIES-UHFFFAOYSA-N
Formula: C10H14O4
SMILES: C=C1C(C(=O)OCC)C1C(=O)OCC
Mol. weight [g/mol]: 198.22
CAS: 55638-55-6

Physical Properties

Property code	Value	Unit	Source
gf	-328.40	kJ/mol	Joback Method
hf	-602.63	kJ/mol	Joback Method
hfus	25.28	kJ/mol	Joback Method
hvap	55.93	kJ/mol	Joback Method
log10ws	-1.00		Crippen Method
logp	0.915		Crippen Method
mcvol	151.480	ml/mol	McGowan Method
pc	2576.72	kPa	Joback Method
tb	582.01	K	Joback Method
tc	775.18	K	Joback Method
tf	374.16	K	Joback Method
vc	0.584	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	382.00	J/mol×K	582.01	Joback Method
cpg	440.93	J/mol×K	742.98	Joback Method
cpg	430.34	J/mol×K	710.79	Joback Method
cpg	419.16	J/mol×K	678.59	Joback Method
cpg	407.37	J/mol×K	646.40	Joback Method
cpg	394.99	J/mol×K	614.20	Joback Method
cpg	450.94	J/mol×K	775.18	Joback Method
dvisc	0.0005516	Pa×s	582.01	Joback Method

dvisc	0.0006199	Pa×s	547.37	Joback Method
dvisc	0.0007076	Pa×s	512.73	Joback Method
dvisc	0.0008235	Pa×s	478.09	Joback Method
dvisc	0.0009812	Pa×s	443.44	Joback Method
dvisc	0.0012044	Pa×s	408.80	Joback Method
dvisc	0.0015356	Pa×s	374.16	Joback Method

Sources

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=C55638556&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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