Propionic acid, 3,3-diethoxy-2,2-dimethyl-, ethyl ester

Inchi: InChI=1S/C11H22O4/c1-6-13-9(12)11(4,5)10(14-7-2)15-8-3/h10H,6-8H2,1-5H3
InchiKey: NCXYYMZLOQQCRW-UHFFFAOYSA-N
Formula: C11H22O4
SMILES: CCOC(=O)C(C)(C)C(OCC)OCC
Mol. weight [g/mol]: 218.29
CAS: 116594-66-2

Physical Properties

Property code	Value	Unit	Source
gf	-401.78	kJ/mol	Joback Method
hf	-793.64	kJ/mol	Joback Method
hfus	18.47	kJ/mol	Joback Method
hvap	52.37	kJ/mol	Joback Method
log10ws	-1.83		Crippen Method
logp	1.975		Crippen Method
mcvol	185.030	ml/mol	McGowan Method
pc	2001.91	kPa	Joback Method
tb	568.54	K	Joback Method
tc	750.68	K	Joback Method
tf	317.77	K	Joback Method
vc	0.695	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	472.73	J/mol×K	568.54	Joback Method
cpg	544.41	J/mol×K	720.32	Joback Method
cpg	531.41	J/mol×K	689.97	Joback Method
cpg	517.74	J/mol×K	659.61	Joback Method
cpg	503.41	J/mol×K	629.25	Joback Method
cpg	488.41	J/mol×K	598.90	Joback Method
cpg	556.74	J/mol×K	750.68	Joback Method
dvisc	0.0001131	Pa×s	568.54	Joback Method
dvisc	0.0001545	Pa×s	526.74	Joback Method

dvisc	0.0002228	Pa×s	484.95	Joback Method
dvisc	0.0003442	Pa×s	443.15	Joback Method
dvisc	0.0005823	Pa×s	401.36	Joback Method
dvisc	0.0011130	Pa×s	359.56	Joback Method
dvisc	0.0025227	Pa×s	317.77	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C116594662&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