ethyl 4-acetoxyoctanoate

Inchi: InChI=1S/C12H22O4/c1-4-6-7-11(16-10(3)13)8-9-12(14)15-5-2/h11H,4-9H2,1-3H3
InchiKey: YTHRNQINJGHRHH-UHFFFAOYSA-N
Formula: C12H22O4
SMILES: CCCCC(CCC(=O)OCC)OC(C)=O
Mol. weight [g/mol]: 230.30

Physical Properties

Property code	Value	Unit	Source
gf	-420.12	kJ/mol	Joback Method
hf	-785.89	kJ/mol	Joback Method
hfus	28.89	kJ/mol	Joback Method
hvap	60.23	kJ/mol	Joback Method
log10ws	-2.68		Crippen Method
logp	2.452		Crippen Method
mcvol	194.820	ml/mol	McGowan Method
pc	1940.65	kPa	Joback Method
rinpol	1450.00		NIST Webbook
rinpol	1447.00		NIST Webbook
rinpol	1450.00		NIST Webbook
rinpol	1447.00		NIST Webbook
ripol	1927.00		NIST Webbook
tb	626.10	K	Joback Method
tc	806.33	K	Joback Method
tf	354.32	K	Joback Method
vc	0.750	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	516.38	J/mol×K	626.10	Joback Method
cpg	531.21	J/mol×K	656.14	Joback Method
cpg	545.37	J/mol×K	686.18	Joback Method
cpg	558.88	J/mol×K	716.21	Joback Method
cpg	571.72	J/mol×K	746.25	Joback Method

cpg	583.91	J/mol×K	776.29	Joback Method
cpg	595.44	J/mol×K	806.33	Joback Method
dvisc	0.0021379	Pa×s	354.32	Joback Method
dvisc	0.0010527	Pa×s	399.62	Joback Method
dvisc	0.0005987	Pa×s	444.91	Joback Method
dvisc	0.0003780	Pa×s	490.21	Joback Method
dvisc	0.0002579	Pa×s	535.51	Joback Method
dvisc	0.0001868	Pa×s	580.80	Joback Method
dvisc	0.0001418	Pa×s	626.10	Joback Method

Sources

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=R66796&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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