5-Chlorovaleric acid, pentyl ester

Inchi: InChI=1S/C10H19ClO2/c1-2-3-6-9-13-10(12)7-4-5-8-11/h2-9H2,1H3
InchiKey: LAYFAERBACNODJ-UHFFFAOYSA-N
Formula: C10H19ClO2
SMILES: CCCCCOC(=O)CCCCCl
Mol. weight [g/mol]: 206.71
CAS: 70543-39-4

Physical Properties

Property code	Value	Unit	Source
gf	-212.53	kJ/mol	Joback Method
hf	-510.27	kJ/mol	Joback Method
hfus	28.64	kJ/mol	Joback Method
hvap	51.39	kJ/mol	Joback Method
log10ws	-3.02		Crippen Method
logp	3.129		Crippen Method
mcvol	171.440	ml/mol	McGowan Method
pc	2125.60	kPa	Joback Method
rinpol	1440.10		NIST Webbook
tb	541.92	K	Joback Method
tc	719.34	K	Joback Method
tf	304.54	K	Joback Method
vc	0.668	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	398.46	J/mol×K	541.92	Joback Method
cpg	461.13	J/mol×K	689.77	Joback Method
cpg	449.68	J/mol×K	660.20	Joback Method
cpg	437.70	J/mol×K	630.63	Joback Method
cpg	425.18	J/mol×K	601.06	Joback Method
cpg	412.10	J/mol×K	571.49	Joback Method
cpg	472.05	J/mol×K	719.34	Joback Method
dvisc	0.0002192	Pa×s	541.92	Joback Method

dvisc	0.0002844	Pa×s	502.36	Joback Method
dvisc	0.0003858	Pa×s	462.79	Joback Method
dvisc	0.0005540	Pa×s	423.23	Joback Method
dvisc	0.0008572	Pa×s	383.67	Joback Method
dvisc	0.0014664	Pa×s	344.10	Joback Method
dvisc	0.0028840	Pa×s	304.54	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C70543394&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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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