Acetic acid, chloro-, 1-methylpropyl ester

Other names: Chloroacetic acid, 2-butyl ester
Chloroacetic acid, sec-butyl ester
Inchi: InChI=1S/C6H11ClO2/c1-3-5(2)9-6(8)4-7/h5H,3-4H2,1-2H3
InchiKey: MCUHSYTVMNEJFT-UHFFFAOYSA-N
Formula: C6H11ClO2
SMILES: CCC(C)OC(=O)CCl
Mol. weight [g/mol]: 150.60
CAS: 17696-64-9

Physical Properties

Property code	Value	Unit	Source
gf	-248.65	kJ/mol	Joback Method
hf	-432.99	kJ/mol	Joback Method
hfus	14.76	kJ/mol	Joback Method
hvap	42.10	kJ/mol	Joback Method
log10ws	-1.46		Crippen Method
logp	1.567		Crippen Method
mcvol	115.080	ml/mol	McGowan Method
pc	3166.83	kPa	Joback Method
rinpol	941.00		NIST Webbook
rinpol	941.00		NIST Webbook
ripol	1362.00		NIST Webbook
ripol	1362.00		NIST Webbook
tb	449.96	K	Joback Method
tc	638.50	K	Joback Method
tf	244.46	K	Joback Method
vc	0.439	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	225.04	J/mol×K	449.96	Joback Method
cpg	234.96	J/mol×K	481.38	Joback Method
cpg	244.50	J/mol×K	512.81	Joback Method

cpg	253.66	J/mol×K	544.23	Joback Method
cpg	262.46	J/mol×K	575.65	Joback Method
cpg	270.88	J/mol×K	607.08	Joback Method
cpg	278.93	J/mol×K	638.50	Joback Method
dvisc	0.0043249	Pa×s	244.46	Joback Method
dvisc	0.0020836	Pa×s	278.71	Joback Method
dvisc	0.0011778	Pa×s	312.96	Joback Method
dvisc	0.0007450	Pa×s	347.21	Joback Method
dvisc	0.0005117	Pa×s	381.46	Joback Method
dvisc	0.0003739	Pa×s	415.71	Joback Method
dvisc	0.0002866	Pa×s	449.96	Joback Method
hvapt	49.60	kJ/mol	365.50	NIST Webbook

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C17696649&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
hvapt: Enthalpy of vaporization at a given temperature
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