Butyl 2-chlorobutanoate

Other names: Butanoic acid, 2-chloro, butyl ester
Inchi: InChI=1S/C8H15ClO2/c1-3-5-6-11-8(10)7(9)4-2/h7H,3-6H2,1-2H3
InchiKey: NULLMNSLPQGSMJ-UHFFFAOYSA-N
Formula: C8H15ClO2
SMILES: CCCCOC(=O)C(Cl)CC
Mol. weight [g/mol]: 178.66

Physical Properties

Property code	Value	Unit	Source
gf	-231.81	kJ/mol	Joback Method
hf	-474.27	kJ/mol	Joback Method
hfus	19.94	kJ/mol	Joback Method
hvap	46.55	kJ/mol	Joback Method
log10ws	-2.30		Crippen Method
logp	2.347		Crippen Method
mcvol	143.260	ml/mol	McGowan Method
pc	2579.34	kPa	Joback Method
rinpol	1131.00		NIST Webbook
rinpol	1117.00		NIST Webbook
rinpol	1124.00		NIST Webbook
rinpol	1131.00		NIST Webbook
rinpol	1131.00		NIST Webbook
tb	495.72	K	Joback Method
tc	680.38	K	Joback Method
tf	267.00	K	Joback Method
vc	0.550	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	307.89	J/mol×K	495.72	Joback Method
cpg	320.07	J/mol×K	526.50	Joback Method
cpg	331.75	J/mol×K	557.27	Joback Method
cpg	342.95	J/mol×K	588.05	Joback Method

cpg	353.67	J/mol×K	618.82	Joback Method
cpg	363.91	J/mol×K	649.60	Joback Method
cpg	373.67	J/mol×K	680.38	Joback Method
dvisc	0.0042242	Pa×s	267.00	Joback Method
dvisc	0.0019599	Pa×s	305.12	Joback Method
dvisc	0.0010785	Pa×s	343.24	Joback Method
dvisc	0.0006687	Pa×s	381.36	Joback Method
dvisc	0.0004523	Pa×s	419.48	Joback Method
dvisc	0.0003265	Pa×s	457.60	Joback Method
dvisc	0.0002478	Pa×s	495.72	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R28095&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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