

Propanoic acid, 2-chloro-, methyl ester, (S)-

Other names:	Methyl (S)-(-)-2-chloropropionate
Inchi:	InChI=1S/C4H7ClO2/c1-3(5)4(6)7-2/h3H,1-2H3/t3-/m1/s1
InchiKey:	JLEJCNOTNLZCHQ-GSVOUGTGSA-N
Formula:	C4H7ClO2
SMILES:	COC(=O)C(C)Cl
Mol. weight [g/mol]:	122.55
CAS:	73246-45-4

Physical Properties

Property code	Value	Unit	Source
gf	-265.49	kJ/mol	Joback Method
hf	-391.71	kJ/mol	Joback Method
hfus	9.58	kJ/mol	Joback Method
hvap	37.65	kJ/mol	Joback Method
log10ws	-0.62		Crippen Method
logp	0.787		Crippen Method
mcvol	86.900	ml/mol	McGowan Method
pc	3980.54	kPa	Joback Method
tb	404.20	K	Joback Method
tc	596.19	K	Joback Method
tf	221.92	K	Joback Method
vc	0.327	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	151.16	J/mol×K	404.20	Joback Method
cpg	184.27	J/mol×K	564.19	Joback Method
cpg	178.13	J/mol×K	532.19	Joback Method
cpg	171.74	J/mol×K	500.19	Joback Method
cpg	165.11	J/mol×K	468.20	Joback Method
cpg	158.25	J/mol×K	436.20	Joback Method
cpg	190.17	J/mol×K	596.19	Joback Method
dvisc	0.0003140	Pa×s	404.20	Joback Method

dvisc	0.0004049	Pa×s	373.82	Joback Method
dvisc	0.0005462	Pa×s	343.44	Joback Method
dvisc	0.0007807	Pa×s	313.06	Joback Method
dvisc	0.0012051	Pa×s	282.68	Joback Method
dvisc	0.0020651	Pa×s	252.30	Joback Method
dvisc	0.0041012	Pa×s	221.92	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C73246454&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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
mccvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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