

# Methanesulfonic acid, 2-chloroethyl ester

<b>Other names:</b>	2-chloroethyl methanesulphonate
<b>Inchi:</b>	InChI=1S/C3H7ClO3S/c1-8(5,6)7-3-2-4/h2-3H2,1H3
<b>InchiKey:</b>	FMMYTRQXHORTCU-UHFFFAOYSA-N
<b>Formula:</b>	C3H7ClO3S
<b>SMILES:</b>	CS(=O)(=O)OCCCl
<b>Mol. weight [g/mol]:</b>	158.60
<b>CAS:</b>	3570-58-9

## Physical Properties

Property code	Value	Unit	Source
gf	-611.09	kJ/mol	Joback Method
hf	-706.56	kJ/mol	Joback Method
hfus	20.29	kJ/mol	Joback Method
hvap	47.70	kJ/mol	Joback Method
log10ws	-0.14		Crippen Method
logp	0.201		Crippen Method
mcvol	99.330	ml/mol	McGowan Method
pc	5065.79	kPa	Joback Method
tb	375.67	K	Joback Method
tc	548.28	K	Joback Method
tf	214.28	K	Joback Method
vc	0.397	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	169.61	J/mol×K	375.67	Joback Method
cpg	176.53	J/mol×K	404.44	Joback Method
cpg	183.31	J/mol×K	433.21	Joback Method
cpg	189.94	J/mol×K	461.97	Joback Method
cpg	196.39	J/mol×K	490.74	Joback Method
cpg	202.67	J/mol×K	519.51	Joback Method
cpg	208.76	J/mol×K	548.28	Joback Method

# Sources

<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</a>
<b>Crippen Method:</b>	<a href="https://www.cheméo.com/doc/models/crippen_log10ws">https://www.cheméo.com/doc/models/crippen_log10ws</a>
<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>
<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C3570589&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C3570589&amp;Units=SI</a>

# Legend

<b>cpg:</b>	Ideal gas heat capacity
<b>gf:</b>	Standard Gibbs free energy of formation
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>h vap:</b>	Enthalpy of vaporization at standard conditions
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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