

# Carbonochloridothioic acid, S-methyl ester

<b>Other names:</b>	Formic acid, chlorothio-, S-methyl ester Methyl chlorothioformate Methyl chlorothiolformate Methyl thiochloroformate Methyl thiolchloroformate S-Methyl chlorothioformate S-Methyl chlorothiolformate Thioformic acid, chloro-, methyl ester
<b>Inchi:</b>	InChI=1S/C2H3CIOS/c1-5-2(3)4/h1H3
<b>InchiKey:</b>	YPSUCTSXOROPBS-UHFFFAOYSA-N
<b>Formula:</b>	C2H3CIOS
<b>SMILES:</b>	CSC(=O)Cl
<b>Mol. weight [g/mol]:</b>	110.56
<b>CAS:</b>	18369-83-0

## Physical Properties

Property code	Value	Unit	Source
gf	-141.77	kJ/mol	Joback Method
hf	-171.06	kJ/mol	Joback Method
hfus	10.86	kJ/mol	Joback Method
hvap	37.99	kJ/mol	Joback Method
log10ws	-1.45		Crippen Method
logp	1.708		Crippen Method
mcvol	69.200	ml/mol	McGowan Method
pc	5351.35	kPa	Joback Method
tb	383.20	K	NIST Webbook
tc	623.12	K	Joback Method
tf	226.55	K	Joback Method
vc	0.257	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	99.96	J/molxK	405.24	Joback Method

cpg	104.30	J/mol×K	441.55	Joback Method
cpg	108.47	J/mol×K	477.87	Joback Method
cpg	112.45	J/mol×K	514.18	Joback Method
cpg	116.26	J/mol×K	550.49	Joback Method
cpg	119.87	J/mol×K	586.81	Joback Method
cpg	123.29	J/mol×K	623.12	Joback Method

## Sources

<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>
<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.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=C18369830&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C18369830&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>hvap:</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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