

# Chlorocarbonylsulfenyl chloride

<b>Other names:</b>	Carbonochloridothioic acid, anhydrosulfide with thiohypochlorous acid (chlorothio)formyl chloride
<b>Inchi:</b>	InChI=1S/CCI2OS/c2-1(4)5-3
<b>InchiKey:</b>	MNOALXGAYUJNKX-UHFFFAOYSA-N
<b>Formula:</b>	CCI2OS
<b>SMILES:</b>	O=C(Cl)SCl
<b>Mol. weight [g/mol]:</b>	130.98
<b>CAS:</b>	2757-23-5

## Physical Properties

Property code	Value	Unit	Source
gf	-162.12	kJ/mol	Joback Method
hf	-166.16	kJ/mol	Joback Method
hfus	12.47	kJ/mol	Joback Method
hvap	40.15	kJ/mol	Joback Method
log10ws	-2.17		Crippen Method
logp	2.232		Crippen Method
mvol	67.350	ml/mol	McGowan Method
pc	5845.00	kPa	Joback Method
tb	419.79	K	Joback Method
tc	648.43	K	Joback Method
tf	245.20	K	Joback Method
vc	0.249	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	84.27	J/molxK	419.79	Joback Method
cpg	86.45	J/molxK	457.90	Joback Method
cpg	88.54	J/molxK	496.00	Joback Method
cpg	90.50	J/molxK	534.11	Joback Method
cpg	92.35	J/molxK	572.22	Joback Method
cpg	94.07	J/molxK	610.33	Joback Method
cpg	95.66	J/molxK	648.43	Joback Method

# Sources

<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=C2757235&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C2757235&amp;Units=SI</a>
<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.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>

# 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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