

# Bis(chloromethyl) sulfide

<b>Inchi:</b>	InChI=1S/C2H4Cl2S/c3-1-5-2-4/h1-2H2
<b>InchiKey:</b>	KRIFIIWBVJKVST-UHFFFAOYSA-N
<b>Formula:</b>	C2H4Cl2S
<b>SMILES:</b>	CICSCCI
<b>Mol. weight [g/mol]:</b>	131.02
<b>CAS:</b>	3592-44-7

## Physical Properties

Property code	Value	Unit	Source
gf	-24.78	kJ/mol	Joback Method
hf	-74.22	kJ/mol	Joback Method
hfus	13.46	kJ/mol	Joback Method
hvap	35.63	kJ/mol	Joback Method
log10ws	-1.84		Crippen Method
logp	2.112		Crippen Method
mvol	79.870	ml/mol	McGowan Method
pc	4646.65	kPa	Joback Method
tb	388.80	K	Joback Method
tc	600.72	K	Joback Method
tf	206.54	K	Joback Method
vc	0.299	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	133.72	J/mol×K	565.40	Joback Method
cpg	112.14	J/mol×K	388.80	Joback Method
cpg	116.87	J/mol×K	424.12	Joback Method
cpg	121.38	J/mol×K	459.44	Joback Method
cpg	125.70	J/mol×K	494.76	Joback Method
cpg	129.81	J/mol×K	530.08	Joback Method
cpg	137.43	J/mol×K	600.72	Joback Method
hvapt	45.10	kJ/mol	375.00	NIST Webbook

# Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.73866e+01
Coeff. B	-5.48811e+03
Temperature range (K), min.	320.00
Temperature range (K), max.	454.50

## Sources

<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C3592447&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C3592447&amp;Units=SI</a>
<b>The Yaws Handbook of Vapor Pressure:</b>	<a href="https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure">https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure</a>
<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.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>

## 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>hvapt:</b>	Enthalpy of vaporization at a given temperature
<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>pvap:</b>	Vapor pressure
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature

**tf:** Normal melting (fusion) point

**vc:** Critical Volume

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