

# 4,7,13,16-Tetraoxa-1,10-dithiacyclooctadecane-1,10-dithione

<b>Inchi:</b>	InChI=1S/C12H24O8S2/c13-21(14)9-5-17-1-2-18-6-10-22(15,16)12-8-20-4-3-19-7-11-21
<b>InchiKey:</b>	YTAKFJGXYLYLKU-UHFFFAOYSA-N
<b>Formula:</b>	C12H24O8S2
<b>SMILES:</b>	O=S1(=O)CCOCCOCCS(=O)(=O)CCOCCOCC1
<b>Mol. weight [g/mol]:</b>	360.44
<b>CAS:</b>	108846-58-8

## Physical Properties

Property code	Value	Unit	Source
gf	-1330.96	kJ/mol	Joback Method
hf	-1718.19	kJ/mol	Joback Method
hfus	46.13	kJ/mol	Joback Method
hvap	98.41	kJ/mol	Joback Method
log10ws	1.24		Crippen Method
logp	-1.104		Crippen Method
mcvol	248.740	ml/mol	McGowan Method
pc	3886.79	kPa	Joback Method
tb	710.88	K	Joback Method
tc	950.37	K	Joback Method
tf	475.88	K	Joback Method
vc	0.866	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	733.38	J/molxK	710.88	Joback Method
cpg	758.25	J/molxK	750.79	Joback Method
cpg	780.69	J/molxK	790.71	Joback Method
cpg	800.58	J/molxK	830.62	Joback Method
cpg	817.81	J/molxK	870.54	Joback Method
cpg	832.30	J/molxK	910.45	Joback Method
cpg	843.91	J/molxK	950.37	Joback Method

# Sources

<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=C108846588&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C108846588&amp;Units=SI</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>

# 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>hvac:</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>mccol:</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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