

# 2,4,5,7-tetrathiaoctane

Inchi:	InChI=1S/C4H10S4/c1-5-3-7-8-4-6-2/h3-4H2,1-2H3
InchiKey:	QLDCJQYUNZUCHD-UHFFFAOYSA-N
Formula:	C4H10S4
SMILES:	CSCSSCSC
Mol. weight [g/mol]:	186.38
CAS:	85544-38-3

## Physical Properties

Property code	Value	Unit	Source
gf	115.28	kJ/mol	Joback Method
hf	41.59	kJ/mol	Joback Method
hfus	22.64	kJ/mol	Joback Method
hvap	51.77	kJ/mol	Joback Method
log10ws	-3.01		Crippen Method
logp	3.009		Crippen Method
mcvol	132.620	ml/mol	McGowan Method
pc	4249.61	kPa	Joback Method
rinpol	1439.00		NIST Webbook
rinpol	1528.40		NIST Webbook
rinpol	1528.40		NIST Webbook
rinpol	1439.00		NIST Webbook
rinpol	1476.00		NIST Webbook
tb	566.04	K	Joback Method
tc	831.53	K	Joback Method
tf	272.44	K	Joback Method
vc	0.475	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	258.22	J/mol×K	566.04	Joback Method
cpg	269.10	J/mol×K	610.29	Joback Method
cpg	279.31	J/mol×K	654.54	Joback Method
cpg	288.83	J/mol×K	698.79	Joback Method

cpg	297.61	J/mol×K	743.03	Joback Method
cpg	305.61	J/mol×K	787.28	Joback Method
cpg	312.80	J/mol×K	831.53	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=C85544383&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C85544383&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>mvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>rinpol:</b>	Non-polar retention indices
<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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