

# 2,4-dithiahexane

**Inchi:** InChI=1S/C4H10S2/c1-3-6-4-5-2/h3-4H2,1-2H3  
**InchiKey:** MZEQTJYSLGYJBH-UHFFFAOYSA-N  
**Formula:** C4H10S2  
**SMILES:** CCSCSC  
**Mol. weight [g/mol]:** 122.25  
**CAS:** ---

## Physical Properties

Property code	Value	Unit	Source
gf	49.04	kJ/mol	Joback Method
hf	-42.15	kJ/mol	Joback Method
hfus	14.38	kJ/mol	Joback Method
hvap	38.13	kJ/mol	Joback Method
log10ws	-1.76		Crippen Method
logp	2.060		Crippen Method
mvol	99.920	ml/mol	McGowan Method
pc	4067.32	kPa	Joback Method
rinpol	979.00		NIST Webbook
rinpol	979.00		NIST Webbook
tb	428.48	K	Joback Method
tc	646.67	K	Joback Method
tf	203.64	K	Joback Method
vc	0.367	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	175.81	J/molxK	428.48	Joback Method
cpg	185.27	J/molxK	464.85	Joback Method
cpg	194.36	J/molxK	501.21	Joback Method
cpg	203.07	J/molxK	537.58	Joback Method
cpg	211.40	J/molxK	573.94	Joback Method
cpg	219.35	J/molxK	610.31	Joback Method
cpg	226.91	J/molxK	646.67	Joback Method

# Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.58702e+01
Coeff. B	-4.04088e+03
Coeff. C	-6.17600e+01
Temperature range (K), min.	321.08
Temperature range (K), max.	444.47

## 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=R155661&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R155661&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>

## 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>pvap:</b>	Vapor pressure
<b>rinpol:</b>	Non-polar retention indices
<b>tb:</b>	Normal Boiling Point Temperature

**tc:** Critical Temperature  
**tf:** Normal melting (fusion) point  
**vc:** Critical Volume

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