

# 4,6-dithiadecane

**Inchi:** InChI=1S/C9H20S2/c1-3-5-6-8-11-9-10-7-4-2/h3-9H2,1-2H3  
**InchiKey:** IXQUREDAGVJGPY-UHFFFAOYSA-N  
**Formula:** C9H20S2  
**SMILES:** CCCCCSCSCCC  
**Mol. weight [g/mol]:** 192.38  
**CAS:** ---

## Physical Properties

Property code	Value	Unit	Source
gf	91.14	kJ/mol	Joback Method
hf	-145.35	kJ/mol	Joback Method
hfus	27.33	kJ/mol	Joback Method
hvap	49.26	kJ/mol	Joback Method
log10ws	-3.85		Crippen Method
logp	4.011		Crippen Method
mvol	170.370	ml/mol	McGowan Method
pc	2384.19	kPa	Joback Method
rinpol	1327.00		NIST Webbook
tb	542.88	K	Joback Method
tc	745.83	K	Joback Method
tf	259.99	K	Joback Method
vc	0.647	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	386.99	J/molxK	542.88	Joback Method
cpg	402.36	J/molxK	576.71	Joback Method
cpg	417.01	J/molxK	610.53	Joback Method
cpg	430.95	J/molxK	644.36	Joback Method
cpg	444.19	J/molxK	678.18	Joback Method
cpg	456.73	J/molxK	712.01	Joback Method
cpg	468.59	J/molxK	745.83	Joback Method

# Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.58404e+01
Coeff. B	-4.70302e+03
Coeff. C	-8.46980e+01
Temperature range (K), min.	387.09
Temperature range (K), max.	531.37

## 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=R157043&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R157043&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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