

# 2,4-Dimethylsulfolane

<b>Other names:</b>	Dimethylsulfolane Thiophene, tetrahydro-2,4-dimethyl-, 1,1-dioxide DMS tetrahydro-2,4-dimethylthiophene 1,1-dioxide
<b>Inchi:</b>	InChI=1S/C6H12O2S/c1-5-3-6(2)9(7,8)4-5/h5-6H,3-4H2,1-2H3
<b>InchiKey:</b>	WKFQMDFSDQFAIC-UHFFFAOYSA-N
<b>Formula:</b>	C6H12O2S
<b>SMILES:</b>	CC1CC(C)S(=O)(=O)C1
<b>Mol. weight [g/mol]:</b>	148.22
<b>CAS:</b>	1003-78-7

## Physical Properties

Property code	Value	Unit	Source
gf	-433.32	kJ/mol	Joback Method
hf	-576.99	kJ/mol	Joback Method
hfus	17.21	kJ/mol	Joback Method
hvap	46.53	kJ/mol	Joback Method
log10ws	-0.93		Crippen Method
logp	0.830		Crippen Method
mcvol	112.630	ml/mol	McGowan Method
pc	4356.87	kPa	Joback Method
tb	374.12	K	Joback Method
tc	556.01	K	Joback Method
tf	251.65	K	Joback Method
vc	0.429	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	203.30	J/molxK	374.12	Joback Method
cpg	217.44	J/molxK	404.44	Joback Method
cpg	231.01	J/molxK	434.75	Joback Method
cpg	244.01	J/molxK	465.07	Joback Method
cpg	256.44	J/molxK	495.38	Joback Method

cpg	268.32	J/mol×K	525.70	Joback Method
cpg	279.66	J/mol×K	556.01	Joback Method

## Sources

<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=C1003787&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C1003787&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>
<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</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>mccvol:</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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