

# Benzene, (ethenylsulfonyl)-

<b>Other names:</b>	Sulfone, phenyl vinyl Phenyl vinyl sulfone URI 744 phenyl vinyl sulphone
<b>Inchi:</b>	InChI=1S/C8H8O2S/c1-2-11(9,10)8-6-4-3-5-7-8/h2-7H,1H2
<b>InchiKey:</b>	UJTPZISIAWDGFF-UHFFFAOYSA-N
<b>Formula:</b>	C8H8O2S
<b>SMILES:</b>	<chem>C=CS(=O)(=O)c1ccccc1</chem>
<b>Mol. weight [g/mol]:</b>	168.21
<b>CAS:</b>	5535-48-8

## Physical Properties

Property code	Value	Unit	Source
chs	-4682.60 ± 1.60	kJ/mol	NIST Webbook
gf	-251.81	kJ/mol	Joback Method
hf	-129.00 ± 3.00	kJ/mol	NIST Webbook
hfs	-210.80 ± 1.70	kJ/mol	NIST Webbook
hfus	20.62	kJ/mol	Joback Method
hsub	82.00 ± 2.00	kJ/mol	NIST Webbook
hvap	53.64	kJ/mol	Joback Method
log10ws	-1.93		Crippen Method
logp	1.604		Crippen Method
mcvol	123.610	ml/mol	McGowan Method
pc	4704.19	kPa	Joback Method
tb	453.58	K	Joback Method
tc	661.77	K	Joback Method
tf	243.14	K	Joback Method
vc	0.482	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	278.64	J/molxK	592.38	Joback Method
cpg	288.42	J/molxK	627.08	Joback Method

cpg	232.45	J/mol×K	453.58	Joback Method
cpg	245.09	J/mol×K	488.28	Joback Method
cpg	256.99	J/mol×K	522.98	Joback Method
cpg	268.17	J/mol×K	557.68	Joback Method
cpg	297.53	J/mol×K	661.77	Joback Method
hfust	11.72	kJ/mol	343.40	NIST Webbook
hfust	11.72	kJ/mol	343.40	NIST Webbook

## Sources

<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C5535488&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C5535488&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>
<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>

## Legend

<b>chs:</b>	Standard solid enthalpy of combustion
<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>hfs:</b>	Solid phase enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>hfust:</b>	Enthalpy of fusion at a given temperature
<b>hsub:</b>	Enthalpy of sublimation 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>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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