

Ethene, (methylsulfonyl)-

Other names:	Sulfone, methyl vinyl Methyl vinyl sulfone URI 718 Methyl vinyl sulphone (methylsulphonyl)ethylene
Inchi:	InChI=1S/C3H6O2S/c1-3-6(2,4)5/h3H,1H2,2H3
InchiKey:	WUIJTQZXUURFQU-UHFFFAOYSA-N
Formula:	C3H6O2S
SMILES:	C=CS(C)(=O)=O
Mol. weight [g/mol]:	106.14
CAS:	3680-02-2

Physical Properties

Property code	Value	Unit	Source
gf	-406.32	kJ/mol	Joback Method
hf	-433.17	kJ/mol	Joback Method
hfus	13.62	kJ/mol	Joback Method
hvap	40.24	kJ/mol	Joback Method
log10ws	-0.26		Crippen Method
logp	0.175		Crippen Method
mcvol	76.920	ml/mol	McGowan Method
pc	5836.07	kPa	Joback Method
tb	312.50	K	Joback Method
tc	477.95	K	Joback Method
tf	160.37	K	Joback Method
vc	0.310	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	114.82	J/molxK	312.50	Joback Method
cpg	121.23	J/molxK	340.08	Joback Method
cpg	127.46	J/molxK	367.65	Joback Method
cpg	133.51	J/molxK	395.23	Joback Method

cpg	139.37	J/mol×K	422.80	Joback Method
cpg	145.05	J/mol×K	450.38	Joback Method
cpg	150.53	J/mol×K	477.95	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C3680022&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

Legend

cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvp:	Enthalpy of vaporization at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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