

# Ethanesulfonic acid, methyl ester

<b>Other names:</b>	Methyl ethane sulfonate Methyl ethane sulphonate
<b>Inchi:</b>	InChI=1S/C3H8O3S/c1-3-7(4,5)6-2/h3H2,1-2H3
<b>InchiKey:</b>	YLJRCXSSKLLWCDE-UHFFFAOYSA-N
<b>Formula:</b>	C3H8O3S
<b>SMILES:</b>	CCS(=O)(=O)OC
<b>Mol. weight [g/mol]:</b>	124.16
<b>CAS:</b>	1912-28-3

## Physical Properties

Property code	Value	Unit	Source
gf	-599.16	kJ/mol	Joback Method
hf	-690.82	kJ/mol	Joback Method
hfus	16.09	kJ/mol	Joback Method
hvap	43.32	kJ/mol	Joback Method
log10ws	0.01		Crippen Method
logp	-0.017		Crippen Method
mvol	87.090	ml/mol	McGowan Method
pc	5343.52	kPa	Joback Method
tb	338.24	K	Joback Method
tc	501.95	K	Joback Method
tf	184.36	K	Joback Method
vc	0.347	m <sup>3</sup> /kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	147.22	J/molxK	338.24	Joback Method
cpg	154.06	J/molxK	365.53	Joback Method
cpg	160.80	J/molxK	392.81	Joback Method
cpg	167.44	J/molxK	420.10	Joback Method
cpg	173.95	J/molxK	447.38	Joback Method
cpg	180.33	J/molxK	474.67	Joback Method
cpg	186.57	J/molxK	501.95	Joback Method

# Sources

<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=C1912283&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C1912283&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</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>

# 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>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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