

2-Hydroxyethyl vinyl sulfide

Other names:	Ethanol, 2-(ethenylthio)-
Inchi:	InChI=1S/C4H8OS/c1-2-6-4-3-5/h2,5H,1,3-4H2
InchiKey:	CJDXLHTYSXHWDC-UHFFFAOYSA-N
Formula:	C4H8OS
SMILES:	C=CSCCO
Mol. weight [g/mol]:	104.17
CAS:	3090-56-0

Physical Properties

Property code	Value	Unit	Source
gf	-33.06	kJ/mol	Joback Method
hf	-110.82	kJ/mol	Joback Method
hfus	13.05	kJ/mol	Joback Method
hvap	47.32	kJ/mol	Joback Method
log10ws	-0.99		Crippen Method
logp	0.855		Crippen Method
mcvol	85.140	ml/mol	McGowan Method
pc	4749.69	kPa	Joback Method
rinpol	932.20		NIST Webbook
rinpol	890.00		NIST Webbook
rinpol	863.00		NIST Webbook
rinpol	923.20		NIST Webbook
rinpol	890.00		NIST Webbook
rinpol	890.00		NIST Webbook
tb	448.56	K	Joback Method
tc	636.33	K	Joback Method
tf	228.30	K	Joback Method
vc	0.314	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	158.69	J/molxK	448.56	Joback Method
cpg	165.68	J/molxK	479.86	Joback Method

cpg	172.37	J/mol×K	511.15	Joback Method
cpg	178.76	J/mol×K	542.45	Joback Method
cpg	184.86	J/mol×K	573.74	Joback Method
cpg	190.67	J/mol×K	605.04	Joback Method
cpg	196.21	J/mol×K	636.33	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C3090560&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.cheméo.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
h vap:	Enthalpy of vaporization at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
m cvol:	McGowan's characteristic volume
pc:	Critical Pressure
r inpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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