Ethylvinyl sulfide

Other names:	CH2=CHSC2H5
	Ethene, (ethylthio)-
	Sulfide, ethyl vinyl
	Vinyl ethyl thioether
	(Ethylthio)ethene
Inchi:	InChI=1S/C4H8S/c1-3-5-4-2/h3H,1,4H2,2H3
InchiKey:	AFGACPRTZOCNIW-UHFFFAOYSA-N
Formula:	C4H8S
SMILES:	C=CSCC
Mol. weight [g/mol]:	88.17
CAS:	627-50-9

Physical Properties

Property code	Value	Unit	Source
gf	103.76	kJ/mol	Joback Method
hf	41.41	kJ/mol	Joback Method
hfus	8.97	kJ/mol	Joback Method
hvap	30.65	kJ/mol	Joback Method
ie	8.21 ± 0.01	eV	NIST Webbook
log10ws	-1.73		Crippen Method
logp	1.883		Crippen Method
mcvol	79.270	ml/mol	McGowan Method
pc	4200.18	kPa	Joback Method
rinpol	696.00		NIST Webbook
rinpol	696.00		NIST Webbook
rinpol	696.00		NIST Webbook
tb	366.50 ± 1.50	K	NIST Webbook
tc	551.75	K	Joback Method
tf	167.48	K	Joback Method
vc	0.294	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source

cpg	122.29	J/mol×K	356.38	Joback Method
cpg	130.03	J/mol×K	388.94	Joback Method
cpg	137.45	J/mol×K	421.50	Joback Method
cpg	144.57	J/mol×K	454.07	Joback Method
cpg	151.40	J/mol×K	486.63	Joback Method
cpg	157.93	J/mol×K	519.19	Joback Method
cpg	164.17	J/mol×K	551.75	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C627509&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

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
hvap:	Enthalpy of vaporization at standard conditions
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume