ethyl trans-1-propenyl disulfide

Inchi: InChI=1S/C5H10S2/c1-3-5-7-6-4-2/h3,5H,4H2,1-2H3/b5-3+
InchiKey: VKBZUZWFXVJIFI-HWKANZROSA-N
Formula: C5H10S2
SMILES: CC=CSSCC
Mol. weight [g/mol]: 134.26

Physical Properties

Property code	Value	Unit	Source
gf	137.68	kJ/mol	Joback Method
hf	54.43	kJ/mol	Joback Method
hfus	17.17	kJ/mol	Joback Method
hvap	40.32	kJ/mol	Joback Method
log10ws	-3.02		Crippen Method
logp	2.921		Crippen Method
mcvol	109.710	ml/mol	McGowan Method
pc	3848.31	kPa	Joback Method
rinpol	1012.00		NIST Webbook
tb	455.52	K	Joback Method
tc	681.95	K	Joback Method
tf	209.83	K	Joback Method
vc	0.404	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	197.10	J/mol×K	455.52	Joback Method
cpg	207.53	J/mol×K	493.26	Joback Method
cpg	217.41	J/mol×K	531.00	Joback Method
cpg	226.76	J/mol×K	568.74	Joback Method
cpg	235.58	J/mol×K	606.47	Joback Method
cpg	243.90	J/mol×K	644.21	Joback Method
cpg	251.73	J/mol×K	681.95	Joback Method

Sources

Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R237911&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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
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