Allyl methyl tetrasulfide

Other names: Methyl 2-propenyl tetrasulfide
Inchi: InChI=1S/C4H8S4/c1-3-4-6-8-7-5-2/h3H,1,4H2,2H3
InchiKey: BHIKXWJMZCALEK-UHFFFAOYSA-N
Formula: C4H8S4
SMILES: C=CCSSSSC
Mol. weight [g/mol]: 184.37

Physical Properties

Property code	Value	Unit	Source
gf	203.12	kJ/mol	Joback Method
hf	167.02	kJ/mol	Joback Method
hfus	21.36	kJ/mol	Joback Method
hvap	51.10	kJ/mol	Joback Method
log10ws	-3.86		Crippen Method
logp	3.480		Crippen Method
mcvol	128.320	ml/mol	McGowan Method
pc	4492.23	kPa	Joback Method
rinpol	1386.00		NIST Webbook
rinpol	1355.00		NIST Webbook
rinpol	1386.00		NIST Webbook
rinpol	1358.00		NIST Webbook
rinpol	1325.00		NIST Webbook
rinpol	1322.00		NIST Webbook
rinpol	1355.00		NIST Webbook
rinpol	1325.00		NIST Webbook
rinpol	1322.00		NIST Webbook
tb	562.72	K	Joback Method
tc	834.71	K	Joback Method
tf	270.68	K	Joback Method
vc	0.457	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source

cpg	238.98	J/mol×K	562.72	Joback Method
cpg	248.85	J/mol×K	608.05	Joback Method
cpg	258.06	J/mol×K	653.38	Joback Method
cpg	266.59	J/mol×K	698.72	Joback Method
cpg	274.40	J/mol×K	744.05	Joback Method
cpg	281.47	J/mol×K	789.38	Joback Method
cpg	287.75	J/mol×K	834.71	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R53418&Units=SI

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