4,7-dithia-1,9-decadiene

Inchi: InChI=1S/C8H14S2/c1-3-5-9-7-8-10-6-4-2/h3-4H,1-2,5-8H2
InchiKey: NASACXYANDHGNU-UHFFFAOYSA-N
Formula: C8H14S2
SMILES: C=CCSCCSCC=C
Mol. weight [g/mol]: 174.33

Physical Properties

Property code	Value	Unit	Source
gf	258.40	kJ/mol	Joback Method
hf	126.15	kJ/mol	Joback Method
hfus	22.18	kJ/mol	Joback Method
hvap	45.70	kJ/mol	Joback Method
log10ws	-2.65		Crippen Method
logp	2.825		Crippen Method
mcvol	147.680	ml/mol	McGowan Method
pc	2865.80	kPa	Joback Method
rinpol	1321.00		NIST Webbook
tb	513.36	K	Joback Method
tc	728.40	K	Joback Method
tf	245.20	K	Joback Method
vc	0.553	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	303.95	J/mol×K	513.36	Joback Method
cpg	317.07	J/mol×K	549.20	Joback Method
cpg	329.49	J/mol×K	585.04	Joback Method
cpg	341.23	J/mol×K	620.88	Joback Method
cpg	352.31	J/mol×K	656.72	Joback Method
cpg	362.74	J/mol×K	692.56	Joback Method
cpg	372.54	J/mol×K	728.40	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=R157063&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