1,4-Dithiin, 2,3-dihydro-5,6-dimethyl-, 1,1,4,4-tetraoxide

Other names:	p-Dithiane, 2,3-dehydro-2,3-dimethyl-, tetroxide
	2,3-Dihydro-5,6-dimethyl-1,4-dithiin 1,1,4,4-tetroxide
	Dimethipin
	Harvade
	N 252
	Oxidimethiin
	Tetrathiin
	UBI-N 252
	Tetrathiin (desiccant)
	2,3-dihydro-5,6-dimethyl-1,4-dithiin 1,1,4,4-tetraoxide
Inchi:	InChI=1S/C6H10O4S2/c1-5-6(2)12(9,10)4-3-11(5,7)8/h3-4H2,1-2H3
InchiKey:	PHVNLLCAQHGNKU-UHFFFAOYSA-N
Formula:	C6H10O4S2
SMILES:	CC1=C(C)S(=O)(=O)CCS1(=O)=O
Mol. weight [g/mol]:	210.27
CAS:	55290-64-7

Physical Properties

Property code	Value	Unit	Source
gf	-881.10	kJ/mol	Joback Method
hf	-957.59	kJ/mol	Joback Method
hfus	24.31	kJ/mol	Joback Method
hvap	66.56	kJ/mol	Joback Method
log10ws	-0.74		Crippen Method
logp	0.081		Crippen Method
mcvol	136.420	ml/mol	McGowan Method
pc	6046.69	kPa	Joback Method
tb	423.68	K	Joback Method
tc	607.00	K	Joback Method
tf	370.02	K	Joback Method
vc	0.527	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	260.42	J/mol×K	423.68	Joback Method
cpg	272.92	J/mol×K	454.23	Joback Method
cpg	284.90	J/mol×K	484.79	Joback Method
cpg	296.36	J/mol×K	515.34	Joback Method
cpg	307.29	J/mol×K	545.89	Joback Method
cpg	317.69	J/mol×K	576.45	Joback Method
cpg	327.58	J/mol×K	607.00	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=C55290647&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume