Tetrasul sulfoxide

Other names:	Benzene, 1,2,4-trichloro-5-[(4-chlorophenyl)sulfinyl]- p-Chlorophenyl 2,4,5-trichlorophenyl sulfoxide V 110
Inchi:	InChI=1S/C12H6Cl4OS/c13-7-1-3-8(4-2-7)18(17)12-6-10(15)9(14)5-11(12)16/h1-6H
InchiKey:	IEPUYXNXNXZXRP-UHFFFAOYSA-N
Formula:	C12H6Cl4OS
SMILES:	O=S(c1ccc(Cl)cc1)c1cc(Cl)c(Cl)cc1Cl
Mol. weight [g/mol]:	340.05
CAS:	35850-29-4

Physical Properties

Property code	Value	Unit	Source
gf	-28.97	kJ/mol	Joback Method
hf	-132.53	kJ/mol	Joback Method
hfus	37.90	kJ/mol	Joback Method
hvap	79.77	kJ/mol	Joback Method
log10ws	-5.38		Crippen Method
logp	5.467		Crippen Method
mcvol	203.600	ml/mol	McGowan Method
pc	2986.06	kPa	Joback Method
tb	755.24	K	Joback Method
tc	1022.26	K	Joback Method
tf	415.50 ± 0.20	K	NIST Webbook
vc	0.777	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	429.30	J/mol×K	755.24	Joback Method
cpg	439.09	J/mol×K	799.74	Joback Method
cpg	447.79	J/mol×K	844.25	Joback Method
cpg	455.43	J/mol×K	888.75	Joback Method
cpg	462.07	J/mol×K	933.25	Joback Method
cpg	467.72	J/mol×K	977.75	Joback Method

cpg	472.45	J/mol×K	1022.26	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=C35850294&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume