Bis(trifluoromethyl)tetrasulfane

Other names:	Hexafluorodimethyl tetrasulfide
	Bis(trifluoromethyl)tetrasulfide
Inchi:	InChI=1S/C2F6S4/c3-1(4,5)9-11-12-10-2(6,7)8
InchiKey:	WAIPZXAWKMEBHT-UHFFFAOYSA-N
Formula:	C2F6S4
SMILES:	FC(F)(F)SSSSC(F)(F)F
Mol. weight [g/mol]:	266.27
CAS:	372-07-6

Physical Properties

Property code	Value	Unit	Source
gf	-1064.74	kJ/mol	Joback Method
hf	-1111.29	kJ/mol	Joback Method
hfus	21.11	kJ/mol	Joback Method
hvap	39.82	kJ/mol	Joback Method
log10ws	-5.48		Crippen Method
logp	4.704		Crippen Method
mcvol	115.060	ml/mol	McGowan Method
pc	4036.37	kPa	Joback Method
tb	509.44	K	Joback Method
tc	737.41	K	Joback Method
tf	258.28	K	Joback Method
vc	0.450	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	234.10	J/mol×K	509.44	Joback Method
cpg	240.69	J/mol×K	547.43	Joback Method
cpg	246.60	J/mol×K	585.43	Joback Method
cpg	251.85	J/mol×K	623.42	Joback Method
cpg	256.48	J/mol×K	661.42	Joback Method
cpg	260.51	J/mol×K	699.41	Joback Method
cpg	263.96	J/mol×K	737.41	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C372076&Units=SI
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

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