N-Fluoro-bis(fluorosulfonyl)amide

Inchi: InChI=1S/F3NO4S2/c1-4(9(2,5)6)10(3,7)8
InchiKey: RWRVCEYLYJJTNX-UHFFFAOYSA-N
Formula: F3NO4S2
SMILES: O=S(=O)(F)N(F)S(=O)(=O)F
Mol. weight [g/mol]: 199.13
CAS: 13709-40-5

Physical Properties

Property code	Value	Unit	Source
gf	-1461.61	kJ/mol	Joback Method
hf	-1470.83	kJ/mol	Joback Method
hfus	30.77	kJ/mol	Joback Method
hvap	52.46	kJ/mol	Joback Method
log10ws	-0.57		Crippen Method
logp	-0.398		Crippen Method
mcvol	82.330	ml/mol	McGowan Method
pc	9157.30	kPa	Joback Method
tb	305.21	K	Joback Method
tc	440.17	K	Joback Method
tf	201.12	K	Joback Method
vc	0.359	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	144.23	J/mol×K	305.21	Joback Method
cpg	148.75	J/mol×K	327.70	Joback Method
cpg	153.18	J/mol×K	350.20	Joback Method
cpg	157.51	J/mol×K	372.69	Joback Method
cpg	161.74	J/mol×K	395.18	Joback Method
cpg	165.87	J/mol×K	417.67	Joback Method
cpg	169.88	J/mol×K	440.17	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C13709405&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