2,2,2-Trifluoro-1-methylethylidiene sulfurtetrafluoride

Inchi: InChI=1S/C2HF7S/c3-2(4,5)1-10(6,7,8)9/h1H
InchiKey: HOOIJFTVRYRXCS-UHFFFAOYSA-N
Formula: C2HF7S
SMILES: FC(F)(F)C=S(F)(F)(F)F
Mol. weight [g/mol]: 190.08
CAS: 88476-02-2

Physical Properties

Property code	Value	Unit	Source
gf	-1478.78	kJ/mol	Joback Method
hf	-1533.08	kJ/mol	Joback Method
hfus	14.27	kJ/mol	Joback Method
hvap	20.27	kJ/mol	Joback Method
log10ws	-3.28		Crippen Method
logp	3.229		Crippen Method
mcvol	72.080	ml/mol	McGowan Method
pc	3103.64	kPa	Joback Method
tb	309.78	K	Joback Method
tc	457.27	K	Joback Method
tf	101.60	K	Joback Method
vc	0.334	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	140.87	J/mol×K	309.78	Joback Method
cpg	145.63	J/mol×K	334.36	Joback Method
cpg	150.43	J/mol×K	358.94	Joback Method
cpg	155.27	J/mol×K	383.53	Joback Method
cpg	160.13	J/mol×K	408.11	Joback Method
cpg	164.98	J/mol×K	432.69	Joback Method
cpg	169.81	J/mol×K	457.27	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=C88476022&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