

Ethanesulfonyl fluoride

Inchi:	InChI=1S/C2H5FO2S/c1-2-6(3,4)5/h2H2,1H3
InchiKey:	OIBMEBLCOQCFIT-UHFFFAOYSA-N
Formula:	C2H5FO2S
SMILES:	CCS(=O)(=O)F
Mol. weight [g/mol]:	112.12
CAS:	754-03-0

Physical Properties

Property code	Value	Unit	Source
gf	-697.39	kJ/mol	Joback Method
hf	-734.07	kJ/mol	Joback Method
hfus	15.39	kJ/mol	Joback Method
hvap	37.86	kJ/mol	Joback Method
log10ws	-0.34		Crippen Method
logp	0.306		Crippen Method
mcvol	68.900	ml/mol	McGowan Method
pc	5917.16	kPa	Joback Method
tb	292.21	K	Joback Method
tc	443.76	K	Joback Method
tf	151.45	K	Joback Method
vc	0.291	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	106.12	J/molxK	292.21	Joback Method
cpg	111.29	J/molxK	317.47	Joback Method
cpg	116.37	J/molxK	342.73	Joback Method
cpg	121.34	J/molxK	367.99	Joback Method
cpg	126.20	J/molxK	393.25	Joback Method
cpg	130.94	J/molxK	418.50	Joback Method
cpg	135.57	J/molxK	443.76	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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=C754030&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
mccvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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