Trifluoroamine oxide

Other names:	Nitrogen fluoride oxide (NF3O)
	AMOX
	Nitrogen Fluoride oxide (F3NO)
	Trifluoramine oxide
	NOF3
	NF3O
	Nitrogen trifluoride oxide
Inchi:	InChI=1S/F3NO/c1-4(2,3)5
InchiKey:	UDOZVPVDQKQJAP-UHFFFAOYSA-N
Formula:	F3NO
SMILES:	[O-][N+](F)(F)F
Mol. weight [g/mol]:	87.00
CAS:	13847-65-9

Physical Properties

Property code	Value	Unit	Source
ie	13.31 ± 0.06	eV	NIST Webbook
ie	13.36 ± 0.01	eV	NIST Webbook
ie	13.26 ± 0.01	eV	NIST Webbook
log10ws	-0.94		Crippen Method
logp	0.955		Crippen Method
mcvol	32.020	ml/mol	McGowan Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
hvapt	16.10	kJ/mol	153.50	NIST Webbook

Sources

Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C13847659&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

hvapt:	Enthalpy of vaporization at a given temperature
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume