

# Trifluoroamine oxide

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

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