

Hydroxylamine, O-methyl-

Other names:	CH3ONH2 Methoxyamine O-Methylhydroxylamine NCI-C60060 Hydroxylamine methyl ether Methoxyamine
Inchi:	InChI=1S/CH5NO/c1-3-2/h2H2,1H3
InchiKey:	GMPKIPWJBDOURN-UHFFFAOYSA-N
Formula:	CH5NO
SMILES:	CON
Mol. weight [g/mol]:	47.06
CAS:	67-62-9

Physical Properties

Property code	Value	Unit	Source
affp	844.80	kJ/mol	NIST Webbook
basg	812.30	kJ/mol	NIST Webbook
gf	-81.01	kJ/mol	Joback Method
hf	-162.40	kJ/mol	Joback Method
hfus	4.73	kJ/mol	Joback Method
hvap	30.87	kJ/mol	Joback Method
ie	9.55	eV	NIST Webbook
ie	10.28	eV	NIST Webbook
log10ws	0.25		Crippen Method
logp	-0.493		Crippen Method
mcvol	40.800	ml/mol	McGowan Method
pc	6161.14	kPa	Joback Method
tb	317.23	K	Joback Method
tc	500.19	K	Joback Method
tf	206.52	K	Joback Method
vc	0.139	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	67.25	J/mol×K	317.23	Joback Method
cpg	70.54	J/mol×K	347.72	Joback Method
cpg	73.81	J/mol×K	378.22	Joback Method
cpg	77.07	J/mol×K	408.71	Joback Method
cpg	80.29	J/mol×K	439.20	Joback Method
cpg	83.47	J/mol×K	469.70	Joback Method
cpg	86.61	J/mol×K	500.19	Joback Method
hvapt	36.90	kJ/mol	275.00	NIST Webbook
hvapt	38.00	kJ/mol	265.50	NIST Webbook

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=C67629&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

Legend

affp:	Proton affinity
basg:	Gas basicity
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
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
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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