Hydroxylamine, O-methyl-

Other names:	CH3ONH2
	Methoxyamine
	O-Methylhydroxylamine
	NCI-C60060
	Hydroxylamine methyl ether
	Methoxylamine
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	10.28	eV	NIST Webbook
ie	9.55	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	80.29	J/mol×K	439.20	Joback Method
cpg	83.47	J/mol×K	469.70	Joback Method
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	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

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
Joback Method: https://en.wikipedia.org/wiki/Joback_method
McGowan Method: http://link.springer.com/article/10.1007/BF02311772

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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