Diethylhydroxylamine

Other names:	DEHA Ethanamine, N-ethyl-N-hydroxy- N,N-Diethylhydroxyamine N,N-Diethylhydroxylamine N-Hydroxydiethylamine Hydroxylamine, N,N-diethyl- (C2H5)2NOH Pennstop 1866
Inchi:	InChI=1S/C4H11NO/c1-3-5(6)4-2/h6H,3-4H2,1-2H3
InchiKey:	FVCOIAYSJZGECG-UHFFFAOYSA-N
Formula:	C4H11NO
SMILES:	CCN(O)CC
Mol. weight [g/mol]:	89.14
CAS:	3710-84-7

Physical Properties

Property code	Value	Unit	Source
affp	914.70	kJ/mol	NIST Webbook
basg	882.20	kJ/mol	NIST Webbook
chl	-2971.35 ± 0.66	kJ/mol	NIST Webbook
gf	-43.24	kJ/mol	Joback Method
hf	-121.77 ± 0.73	kJ/mol	NIST Webbook
hfl	-174.75 ± 0.72	kJ/mol	NIST Webbook
hfus	13.22	kJ/mol	Joback Method
hvap	52.98 ± 0.12	kJ/mol	NIST Webbook
log10ws	0.28		Crippen Method
logp	0.717		Crippen Method
mcvol	83.070	ml/mol	McGowan Method
pc	4374.18	kPa	Joback Method
tb	400.70	K	NIST Webbook
tb	406.20	K	NIST Webbook
tc	556.43	K	Joback Method
tf	228.13	K	Joback Method
vc	0.296	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	160.61	J/mol×K	395.54	Joback Method
cpg	168.88	J/mol×K	422.35	Joback Method
cpg	176.81	J/mol×K	449.17	Joback Method
cpg	184.42	J/mol×K	475.98	Joback Method
cpg	191.72	J/mol×K	502.80	Joback Method
cpg	198.71	J/mol×K	529.61	Joback Method
cpg	205.42	J/mol×K	556.43	Joback Method
cpl	370.80	J/mol×K	298.15	NIST Webbook

Sources

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
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C3710847&Units=SI

Legend

affp: Proton affinity
basg: Gas basicity
chl: Standard liquid enthalpy of combustion
cpg: Ideal gas heat capacity
cpl: Liquid phase heat capacity
gf: Standard Gibbs free energy of formation
hf: Enthalpy of formation at standard conditions
hfl: Liquid phase 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
mcvol: McGowan's characteristic volume
pc: Critical Pressure

tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume