Ethanamine, N-ethyl-N-methyl-

Other names:	(C2H5)2(CH3)N
	DIETHYLMETHYLAMINE
	Diethylamine, N-methyl-
	Methyldiethylamine
	N,N-DIETHYLMETHYLAMINE
	N-Ethyl-N-methyl-ethanamine
	N-METHYLDIETHYLAMINE
Inchi:	InChI=1S/C5H13N/c1-4-6(3)5-2/h4-5H2,1-3H3
InchiKey:	GNVRJGIVDSQCOP-UHFFFAOYSA-N
Formula:	C5H13N
SMILES:	CCN(C)CC
Mol. weight [g/mol]:	87.16
CAS:	616-39-7

Physical Properties

Property code	Value	Unit	Source
affp	971.00	kJ/mol	NIST Webbook
basg	940.00	kJ/mol	NIST Webbook
gf	102.00	kJ/mol	Joback Method
hf	-79.00	kJ/mol	Joback Method
hfus	11.73	kJ/mol	Joback Method
hvap	31.80	kJ/mol	NIST Webbook
ie	7.40 ± 0.10	eV	NIST Webbook
ie	7.50 ± 0.10	eV	NIST Webbook
ie	8.32	eV	NIST Webbook
log10ws	-0.49		Crippen Method
logp	0.958		Crippen Method
mcvol	91.290	ml/mol	McGowan Method
pc	3460.21	kPa	Joback Method
rinpol	591.00		NIST Webbook
rinpol	604.00		NIST Webbook
rinpol	605.00		NIST Webbook
tb	339.65 ± 4.00	K	NIST Webbook
tb	339.15 ± 3.00	K	NIST Webbook
tb	337.15 ± 4.00	K	NIST Webbook
tb	342.80	K	KDB
tb	337.00 ± 3.00	K	NIST Webbook

tb	337.20	K	NIST Webbook
tb	339.20	K	NIST Webbook
tb	338.15 ± 3.00	K	NIST Webbook
tb	339.11 ± 0.10	K	NIST Webbook
tb	338.15 ± 3.00	K	NIST Webbook
tb	338.15 ± 3.00	K	NIST Webbook
tc	488.24	K	Joback Method
tf	178.58	K	Joback Method
vc	0.334	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	148.87	J/mol×K	326.24	Joback Method
cpg	159.33	J/mol×K	353.24	Joback Method
cpg	169.39	J/mol×K	380.24	Joback Method
cpg	179.07	J/mol×K	407.24	Joback Method
cpg	188.38	J/mol×K	434.24	Joback Method
cpg	197.32	J/mol×K	461.24	Joback Method
cpg	205.91	J/mol×K	488.24	Joback Method
cpl	200.00	J/mol×K	298.15	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.38576e+01
Coeff. B	-2.39585e+03
Coeff. C	-7.86880e+01
Temperature range (K), min.	255.24
Temperature range (K), max.	359.03

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/T + C*ln(T) + D*T^2
Coeff. A	7.15855e+01

Coeff. B	-5.95898e+03
Coeff. C	-8.63148e+00
Coeff. D	7.78218e-06
Temperature range (K), min.	302.15
Temperature range (K), max.	339.15

Sources

KDB:	https://www.cheric.org/files/research/kdb/mol/mol1268.mol
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C616397&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
KDB Vapor Pressure Data:	https://www.cheric.org/research/kdb/hcprop/showprop.php?cmpid=1268
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

Legend

affp:	Proton affinity
basg:	Gas basicity
cpg:	Ideal gas heat capacity
cpl:	Liquid phase 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
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume