Ethanamine, N,N-dimethyl-

Other names:	C2H5N(CH3)2
	Dimethylethylamine
	Ethylamine, N,N-dimethyl-
	Ethyldimethylamine
	Methanamine, N-ethyl-N-methyl-
	N,N-Dimethylaminoethane
	N,N-Dimethylethanamine
	N,N-Dimethylethylamine
	N-Ethyldimethylamine
Inchi:	InChI=1S/C4H11N/c1-4-5(2)3/h4H2,1-3H3
InchiKey:	DAZXVJBJRMWXJP-UHFFFAOYSA-N
Formula:	C4H11N
SMILES:	CCN(C)C
Mol. weight [g/mol]:	73.14
CAS:	598-56-1

Physical Properties

Property code	Value	Unit	Source
affp	960.10	kJ/mol	NIST Webbook
basg	929.10	kJ/mol	NIST Webbook
gf	93.58	kJ/mol	Joback Method
hf	-58.36	kJ/mol	Joback Method
hfus	9.14	kJ/mol	Joback Method
hvap	26.54	kJ/mol	Joback Method
ie	7.74 ± 0.03	eV	NIST Webbook
ie	8.40	eV	NIST Webbook
ie	7.74 ± 0.05	eV	NIST Webbook
log10ws	-0.07		Crippen Method
logp	0.568		Crippen Method
mcvol	77.200	ml/mol	McGowan Method
pc	3886.79	kPa	Joback Method
rinpol	510.00		NIST Webbook
rinpol	504.00		NIST Webbook
rinpol	516.00		NIST Webbook
tb	311.15 ± 3.00	K	NIST Webbook
tb	310.15 ± 3.00	K	NIST Webbook
tb	309.70	K	NIST Webbook

tb	310.65 ± 3.00	K	NIST Webbook
tb	310.15 ± 3.00	K	NIST Webbook
tc	464.37	K	Joback Method
tf	133.15 ± 4.00	K	NIST Webbook
vc	0.278	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	116.46	J/mol×K	303.36	Joback Method
cpg	125.47	J/mol×K	330.20	Joback Method
cpg	134.15	J/mol×K	357.03	Joback Method
cpg	142.50	J/mol×K	383.87	Joback Method
cpg	150.53	J/mol×K	410.70	Joback Method
cpg	158.25	J/mol×K	437.54	Joback Method
cpg	165.67	J/mol×K	464.37	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.26514e+01
Coeff. B	-1.86728e+03
Coeff. C	-7.72510e+01
Temperature range (K), min.	228.28
Temperature range (K), max.	331.65

Sources

The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
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
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