1,2-Ethanediamine, N,N-diethyl-

Other names:	(Diethylamino)ethylamino
	.beta.-diethylaminoethylamine
	1,2-Ethanediamine, N1,N1-diethyl-
	1-Amino-2-(N,N-diethylamino)ethane
	1-Amino-2-(diethylamino)ethane
	2-(Diethylamino)ethylamine
	2-(N,N-Diethylamino)ethylamine
	2-Aminotriethylamine
	2-aminoethyldiethylamine
	Diethylaminoethylamine
	Ethylenediamine, N,N-diethyl-
	N,N-(Diethylamino)ethylamine
	N,N-Diethyl-1,2-diaminoethane
	N,N-Diethyl-1,2-ethanediamine
	N,N-Diethylethanediamine
	N,N-Diethylethylenediamine
	N,N-diethylethane-1,2-diamine
	N-(2-Aminoethyl)-N,N-diethylamine
	N-(2-diethylaminoethyl)amine
	N-[2-(Diethylamino)ethyl]amine
	N1,N1-diethylethane-1,2-diamine
	NSC 19675
	UN 2685
	USAF AM-1
	«beta»-(Diethylamino)ethylamine
	Â«betaÂ»-(Diethylamino)ethylamine
Inchi:	InChI=1S/C6H16N2/c1-3-8(4-2)6-5-7/h3-7H2,1-2H3
InchiKey:	UDGSVBYJWHOHNN-UHFFFAOYSA-N
Formula:	C6H16N2
SMILES:	CCN(CC)CCN
Mol. weight [g/mol]:	116.20
CAS:	100-36-7

Physical Properties

Property code	Value	Unit	Source
gf	176.87	kJ/mol	Joback Method

hf	-65.85	kJ/mol	Joback Method
hfus	19.51	kJ/mol	Joback Method
hvap	41.63	kJ/mol	Joback Method
log10ws	-0.34		Crippen Method
logp	0.287		Crippen Method
mcvol	115.360	ml/mol	McGowan Method
pc	3306.75	kPa	Joback Method
tb	419.20	K	NIST Webbook
tc	599.87	K	Joback Method
tf	273.11	K	Joback Method
vc	0.418	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	307.34	J/mol×K	599.87	Joback Method
cpg	297.40	J/mol×K	570.17	Joback Method
cpg	286.98	J/mol×K	540.46	Joback Method
cpg	276.06	J/mol×K	510.76	Joback Method
cpg	264.63	J/mol×K	481.06	Joback Method
cpg	252.66	J/mol×K	451.35	Joback Method
cpg	240.14	J/mol×K	421.65	Joback Method
pvap	0.98	kPa	303.15	Excess Properties and Vapor Pressure of 2-Diethylaminoethylamine + n-Heptane
pvap	7.63	kPa	343.15	Excess properties and vapour pressure of 2-diethylaminoethylamine + cyclohexane
pvap	11.70	kPa	353.15	Excess properties and vapour pressure of 2-diethylaminoethylamine + cyclohexane
pvap	17.43	kPa	363.15	Excess properties and vapour pressure of 2-diethylaminoethylamine + cyclohexane

pvap	0.13	kPa	273.15	Excess Properties and Vapor Pressure of 2-Diethylaminoethylamine + n-Heptane
pvap	0.53	kPa	293.15	Excess Properties and Vapor Pressure of 2-Diethylaminoethylamine + n-Heptane
pvap	0.73	kPa	298.15	Excess Properties and Vapor Pressure of 2-Diethylaminoethylamine + n-Heptane
pvap	4.83	kPa	333.15	Excess properties and vapour pressure of 2-diethylaminoethylamine + cyclohexane
pvap	1.74	kPa	313.15	Excess Properties and Vapor Pressure of 2-Diethylaminoethylamine + n-Heptane
pvap	2.96	kPa	323.15	Excess Properties and Vapor Pressure of 2-Diethylaminoethylamine + n-Heptane
pvap	4.83	kPa	333.15	Excess Properties and Vapor Pressure of 2-Diethylaminoethylamine + n-Heptane
pvap	7.63	kPa	343.15	Excess Properties and Vapor Pressure of 2-Diethylaminoethylamine + n-Heptane
pvap	11.70	kPa	353.15	Excess Properties and Vapor Pressure of 2-Diethylaminoethylamine + n-Heptane
pvap	17.43	kPa	363.15	Excess Properties and Vapor Pressure of 2-Diethylaminoethylamine + n-Heptane

pvap	2.96	kPa	323.15	Excess properties and vapour pressure of 2-diethylaminoethylamine + cyclohexane
pvap	1.74	kPa	313.15	Excess properties and vapour pressure of 2-diethylaminoethylamine + cyclohexane
pvap	0.98	kPa	303.15	Excess properties and vapour pressure of 2-diethylaminoethylamine + cyclohexane
pvap	0.72	kPa	298.15	Excess properties and vapour pressure of 2-diethylaminoethylamine + cyclohexane
pvap	0.53	kPa	293.15	Excess properties and vapour pressure of 2-diethylaminoethylamine + cyclohexane
pvap	0.27	kPa	283.15	Excess properties and vapour pressure of 2-diethylaminoethylamine + cyclohexane
pvap	0.13	kPa	273.15	Excess properties and vapour pressure of 2-diethylaminoethylamine + cyclohexane

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.54411e+01
Coeff. B	-3.91872e+03
Coeff. C	-5.71180e+01
Temperature range (K), min.	315.72
Temperature range (K), max.	443.98

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
Excess properties and vapour pressure of 2-diethylaminoethylamine + cyclohexane:	https://www.doi.org/10.1016/j.jct.2012.07.005
Excess Properties and Vapor Pressure of 2-Diethylaminoethylamine + n-Heptane:	https://www.doi.org/10.1021/je200820v
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=C100367&Units=SI

Legend

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
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume