1-Tetradecanamine, N,N-dimethyl-

Other names:	Adma 14 Armeen DM 14D Armine DM14D Dimethyl myristamine Dimethyl-n-tetradecylamine Dimethylmyristylamine Dimethyltetradecylamine Genamin 14R302D IPL 30 Myristyl dimethyl amine N,N-Dimethyl-n-tetradecylamine N,N-Dimethylmyristylamine N,N-Dimethyltetradecanamine N,N-Dimethyltetradecylamine NSC 78319 Onamine 14 Tetradecylamine, N,N-dimethyl- Tetradecyldimethylamine myristyldimethylamine
Inchi:	InChI=1S/C16H35N/c1-4-5-6-7-8-9-10-11-12-13-14-15-16-17(2)3/h4-16H2,1-3H3
InchiKey:	SFBHPFQSSDCYSL-UHFFFAOYSA-N
Formula:	C16H35N
SMILES:	CCCCCCCCCCCCCCN(C)C
Mol. weight [g/mol]:	241.46
CAS:	112-75-4

Physical Properties

Property code	Value	Unit	Source
gf	194.62	kJ/mol	Joback Method
hf	-306.04	kJ/mol	Joback Method
hfus	40.22	kJ/mol	Joback Method
hvap	53.25	kJ/mol	Joback Method
log10ws	-5.09		Crippen Method
logp	5.249		Crippen Method
mcvol	246.280	ml/mol	McGowan Method
pc	1316.56	kPa	Joback Method
rinpol	1694.00		NIST Webbook

tb	577.92	K	Joback Method
tc	735.96	K	Joback Method
tf	302.00 ± 3.00	K	NIST Webbook
tf	273.15 ± 5.00	K	NIST Webbook
vc	0.950	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	651.37	J/mol×K	577.92	Joback Method
cpg	670.88	J/mol×K	604.26	Joback Method
cpg	689.61	J/mol×K	630.60	Joback Method
cpg	707.58	J/mol×K	656.94	Joback Method
cpg	724.81	J/mol×K	683.28	Joback Method
cpg	741.32	J/mol×K	709.62	Joback Method
cpg	757.14	J/mol×K	735.96	Joback Method
hvapt	77.30	kJ/mol	298.00	Evaluation of the Vaporization Enthalpies and Liquid Vapor Pressures of (R)-Deprenyl, (S)-Benzphetamine, Alverine, and a Series of Aliphatic Tertiary Amines by Correlation Gas Chromatography at T/K = 298.15

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.74330e+01
Coeff. B	-5.84793e+03
Coeff. C	-1.01042e+02
Temperature range (K), min.	442.12
Temperature range (K), max.	583.48

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Evaluation of the Vaporization Enthalpies and Liquid Vapor Pressures of (R)-Deprenyl, (S)-Benzphetamine, Alverine, and a Series of Aliphatic Tertiary Amines by Correlation Gas Chromatography at T/K = 298.15:	https://www.doi.org/10.1021/je500358r
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=C112754&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

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
hvapt:	Enthalpy of vaporization at a given temperature
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