1-Tetradecanamine, N-methyl-

Other names: N-methyltetradecylamine
methyltetradecylamine
Inchi: InChI=1S/C15H33N/c1-3-4-5-6-7-8-9-10-11-12-13-14-15-16-2/h16H,3-15H2,1-2H3
InchiKey: QWERMLCFPMTLTG-UHFFFAOYSA-N
Formula: C15H33N
SMILES: CCCCCCCCCCCCCCNC
Mol. weight [g/mol]: 227.43
CAS: 29369-63-9

Physical Properties

Property code	Value	Unit	Source
gf	164.81	kJ/mol	Joback Method
hf	-299.46	kJ/mol	Joback Method
hfus	39.71	kJ/mol	Joback Method
hvap	55.42	kJ/mol	Joback Method
log10ws	-5.29		Crippen Method
logp	4.907		Crippen Method
mcvol	232.190	ml/mol	McGowan Method
pc	1429.38	kPa	Joback Method
rinpol	1686.00		NIST Webbook
rinpol	1686.00		NIST Webbook
tb	592.77	K	Joback Method
tc	755.38	K	Joback Method
tf	301.65 ± 2.00	K	NIST Webbook
tf	301.65 ± 2.00	K	NIST Webbook
vc	0.910	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	621.78	J/mol×K	592.77	Joback Method
cpg	640.25	J/mol×K	619.87	Joback Method
cpg	657.98	J/mol×K	646.97	Joback Method
cpg	674.97	J/mol×K	674.08	Joback Method

cpg	691.26	J/mol×K	701.18	Joback Method
cpg	706.86	J/mol×K	728.28	Joback Method
cpg	721.80	J/mol×K	755.38	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.60539e+01
Coeff. B	-5.30348e+03
Coeff. C	-9.85400e+01
Temperature range (K), min.	434.92
Temperature range (K), max.	592.23

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=C29369639&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

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