1-Heptanamine, N,N-dimethyl-

Other names:	Dimethyl(n-heptyl)amine
	Dimethylheptylamine
	N,N-dimethylheptylamine
Inchi:	InChI=1S/C9H21N/c1-4-5-6-7-8-9-10(2)3/h4-9H2,1-3H3
InchiKey:	LSICDRUYCNGRIF-UHFFFAOYSA-N
Formula:	C9H21N
SMILES:	CCCCCCCN(C)C
Mol. weight [g/mol]:	143.27
CAS:	5277-11-2

Physical Properties

Property code	Value	Unit	Source
gf	135.68	kJ/mol	Joback Method
hf	-161.56	kJ/mol	Joback Method
hfus	22.09	kJ/mol	Joback Method
hvap	37.67	kJ/mol	Joback Method
log10ws	-2.16		Crippen Method
logp	2.518		Crippen Method
mcvol	147.650	ml/mol	McGowan Method
pc	2302.53	kPa	Joback Method
rinpol	1102.00		NIST Webbook
rinpol	1102.00		NIST Webbook
tb	443.15 ± 3.00	K	NIST Webbook
tb	445.15 ± 3.00	K	NIST Webbook
tc	579.60	K	Joback Method
tf	223.66	K	Joback Method
vc	0.557	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	303.35	J/mol×K	417.76	Joback Method
cpg	318.41	J/mol×K	444.73	Joback Method
cpg	332.88	J/mol×K	471.71	Joback Method

cpg	346.79	J/mol×K	498.68	Joback Method
cpg	360.15	J/mol×K	525.66	Joback Method
cpg	372.97	J/mol×K	552.63	Joback Method
cpg	385.27	J/mol×K	579.60	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.58840e+01
Coeff. B	-4.26123e+03
Coeff. C	-6.49020e+01
Temperature range (K), min.	338.12
Temperature range (K), max.	467.95

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C5277112&Units=SI

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

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