1-Naphthalenamine, N,N-dimethyl-

Other names:	.alpha.-dimethylaminonaphthalene
	1-(dimethylamino)naphthalene
	1-naphthylamine, N,N-dimethyl-
	Dimethyl(1-naphthyl)amine
	Dimethyl-«alpha»-naphthylamine
	N,N,-dimethyl-.alpha.-naphthylamine
	N,N-Dimethyl-1-naftylamin
	N,N-Dimethyl-1-napthylamine
	N,N-Dimethyl-«alpha»-naphthylamine
	N,N-dimethyl-.alpha.-naphthylamine
	N,N-dimethyl-1-naphthalenamine
	N,N-dimethyl-1-naphthylamine
	NSC 8713
	«alpha»-Dimethylaminonaphthalene
	«alpha»-Dimethylnaphthylamine
Inchi:	InChI=1S/C12H13N/c1-13(2)12-9-5-7-10-6-3-4-8-11(10)12/h3-9H,1-2H3
InchiKey:	AJUXDFHPVZQOGF-UHFFFAOYSA-N
Formula:	C12H13N
SMILES:	CN(C)c1cccc2ccccc12
Mol. weight [g/mol]:	171.24
CAS:	86-56-6

Physical Properties

Property code	Value	Unit	Source
gf	370.37	kJ/mol	Joback Method
hf	192.65	kJ/mol	Joback Method
hfus	20.53	kJ/mol	Joback Method
hvap	66.90 ± 0.20	kJ/mol	NIST Webbook
ie	7.59	eV	NIST Webbook
ie	7.00 ± 0.02	eV	NIST Webbook
log10ws	-3.18		Crippen Method
logp	2.906		Crippen Method
mcvol	146.700	ml/mol	McGowan Method
pc	3049.04	kPa	Joback Method
rinpol	1475.90		NIST Webbook
ripol	2100.00		NIST Webbook
tb	537.04	K	Joback Method

tc	763.74	K	Joback Method
tf	329.11	K	Joback Method
vc	0.539	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	410.20	J/mol×K	763.74	Joback Method
cpg	399.32	J/mol×K	725.96	Joback Method
cpg	387.60	J/mol×K	688.17	Joback Method
cpg	374.94	J/mol×K	650.39	Joback Method
cpg	361.28	J/mol×K	612.61	Joback Method
cpg	346.53	J/mol×K	574.82	Joback Method
cpg	330.60	J/mol×K	537.04	Joback Method
pvap	7.85e-03	kPa	322.20	Vapor Pressures and Phase Transitions of a Series of the Aminonaphthalenes
pvap	3.05e-03	kPa	310.30	Vapor Pressures and Phase Transitions of a Series of the Aminonaphthalenes
pvap	3.89e-03	kPa	313.30	Vapor Pressures and Phase Transitions of a Series of the Aminonaphthalenes
pvap	4.97e-03	kPa	316.30	Vapor Pressures and Phase Transitions of a Series of the Aminonaphthalenes
pvap	6.42e-03	kPa	319.40	Vapor Pressures and Phase Transitions of a Series of the Aminonaphthalenes
pvap	2.45e-03	kPa	307.30	Vapor Pressures and Phase Transitions of a Series of the Aminonaphthalenes
pvap	9.89e-03	kPa	325.30	Vapor Pressures and Phase Transitions of a Series of the Aminonaphthalenes

pvap	0.01	kPa	328.20	Vapor Pressures and Phase Transitions of a Series of the Aminonaphthalenes
pvap	0.02	kPa	331.20	Vapor Pressures and Phase Transitions of a Series of the Aminonaphthalenes
pvap	0.02	kPa	334.30	Vapor Pressures and Phase Transitions of a Series of the Aminonaphthalenes
pvap	1.84e-03	kPa	304.20	Vapor Pressures and Phase Transitions of a Series of the Aminonaphthalenes
pvap	1.05e-03	kPa	298.20	Vapor Pressures and Phase Transitions of a Series of the Aminonaphthalenes
pvap	8.30e-04	kPa	295.30	Vapor Pressures and Phase Transitions of a Series of the Aminonaphthalenes
pvap	5.80e-04	kPa	291.30	Vapor Pressures and Phase Transitions of a Series of the Aminonaphthalenes
pvap	4.10e-04	kPa	287.70	Vapor Pressures and Phase Transitions of a Series of the Aminonaphthalenes
pvap	3.20e-04	kPa	285.20	Vapor Pressures and Phase Transitions of a Series of the Aminonaphthalenes
pvap	2.60e-04	kPa	283.20	Vapor Pressures and Phase Transitions of a Series of the Aminonaphthalenes

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	412.70	K	1.70	NIST Webbook

Sources

Vapor Pressures and Phase Transitions of a Series of the Aminonaphthalenes:	https://www.doi.org/10.1021/je060394v
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=C86566&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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
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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume