2-Naphthalenamine, N-phenyl-

Other names:

2-Naphthylamine, N-phenyl-
«beta»-Naphthylphenylamine
Aceto PBN
AgeRite Powder
Antioxidant PBN
Antioxidant 116
N-(2-Naphthyl)aniline
N-Phenyl-«beta»-naphthylamine
N-Phenyl-2-naphthylamine
Neosone D
Neozon D
Neozone
Neozone D
Nilox PBNA
Nonox D
Nonox DN
PBNA
Stabilizator AR
Vulkanox PBN
2-Anilinonaphthalene
2-Naphthylphenylamine
2-Phenylaminonaphthalene
Anilinonaphthalene
NCI-C02915
Phenyl-«beta»-naphthylamine
Phenyl-2-naphthylamine
N-Fenyl-2-aminonaftalen
Fenyl-«beta»-naftylamin
N-Phenyl-2-naphthalenamine
N-(2-Naphthyl)-N-phenylamine
Stabilizer AR
Antioxidant D
Nocrac D
Naftam 2
N-«beta»-Naphthyl-N-phenylamine
Stabilator AR
AK 1
AK 1 (stabilizer)
NSC 37151
Noclizer D

Inchi: InChI=1S/C16H13N/c1-2-8-15(9-3-1)17-16-11-10-13-6-4-5-7-14(13)12-16/h1-12,17H
InchiKey: KEQFTVQCIQJIQW-UHFFFAOYSA-N
Formula: C16H13N
SMILES: c1ccc(Nc2ccc3ccccc3c2)cc1
Mol. weight [g/mol]: 219.28
CAS: 135-88-6

Physical Properties

Property code	Value	Unit	Source
chs	-8316.40 ± 1.70	kJ/mol	NIST Webbook
chs	-8328.46	kJ/mol	NIST Webbook
chs	-8313.90 ± 1.80	kJ/mol	NIST Webbook
chs	-8399.80	kJ/mol	NIST Webbook
gf	495.07	kJ/mol	Joback Method
hf	332.56	kJ/mol	Joback Method
hfs	246.00	kJ/mol	NIST Webbook
hfs	162.00 ± 1.70	kJ/mol	NIST Webbook
hfs	174.30	kJ/mol	NIST Webbook
hfus	27.01	kJ/mol	Joback Method
hvap	64.50	kJ/mol	Joback Method
ie	7.15	eV	NIST Webbook
log10ws	-5.08		Crippen Method
logp	4.583		Crippen Method
mcvol	179.300	ml/mol	McGowan Method
pc	2925.00	kPa	Joback Method
rinpol	2169.00		NIST Webbook
rinpol	2222.00		NIST Webbook
tb	668.70	K	NIST Webbook
tc	951.41	K	Joback Method
tf	420.80	K	Joback Method
vc	0.672	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	518.61	J/mol×K	865.26	Joback Method
cpg	529.70	J/mol×K	908.34	Joback Method

cpg	463.28	J/mol×K	692.97	Joback Method
cpg	479.04	J/mol×K	736.04	Joback Method
cpg	493.42	J/mol×K	779.12	Joback Method
cpg	506.56	J/mol×K	822.19	Joback Method
cpg	539.99	J/mol×K	951.41	Joback Method
hsubt	115.80	kJ/mol	348.00	NIST Webbook
hvapt	88.70	kJ/mol	451.50	NIST Webbook

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C135886&Units=SI
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

chs:	Standard solid enthalpy of combustion
cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfs:	Solid phase enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hsubt:	Enthalpy of sublimation at a given temperature
hvap:	Enthalpy of vaporization at standard conditions
hvapt:	Enthalpy of vaporization at a given temperature
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume