# N,N-Diethyl-N'-phenylethylenediamine

**Other names:** Aniline, N-(2-(diethylamino)ethyl)-
1,2-Ethanediamine, N,N-diethyl-N'-phenyl-
Benzenamine, N-(2-(diethylamino)ethyl)-
Ethylenediamine, N,N-diethyl-N'-phenyl-
N-(«beta»-(N,N-Diethylamino)ethyl)aniline
1167 F
Ethane-1,2-diamine, N,N-diethyl-N'-phenyl-
1,2-Ethanediamine, N1,N1-diethyl-N2-phenyl-
NSC 30212

**Inchi:** InChI=1S/C12H20N2/c1-3-14(4-2)11-10-13-12-8-6-5-7-9-12/h5-9,13H,3-4,10-11H2,1-2H

**InchiKey:** QUMIGAREEPSVLG-UHFFFAOYSA-N

**Formula:** C12H20N2

**SMILES:** CCN(CC)CCNc1ccccc1

**Mol. weight [g/mol]:** 192.30

**CAS:** 1665-59-4

# Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 362.74 | kJ/mol | Joback Method |
| hf | 66.52 | kJ/mol | Joback Method |
| hfus | 29.00 | kJ/mol | Joback Method |
| hvap | 53.06 | kJ/mol | Joback Method |
| log10ws | -2.14 | | Crippen Method |
| logp | 2.440 | | Crippen Method |
| mcvol | 176.140 | ml/mol | McGowan Method |
| pc | 2431.44 | kPa | Joback Method |
| tb | 563.25 | K | Joback Method |
| tc | 761.07 | K | Joback Method |
| tf | 336.55 | K | Joback Method |
| vc | 0.652 | m3/kmol | Joback Method |

# Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| cpg | 434.75 | J/mol×K | 563.25 | Joback Method |
| cpg | 451.87 | J/mol×K | 596.22 | Joback Method |
| cpg | 468.01 | J/mol×K | 629.19 | Joback Method |
| cpg | 483.20 | J/mol×K | 662.16 | Joback Method |
| cpg | 497.49 | J/mol×K | 695.13 | Joback Method |
| cpg | 510.93 | J/mol×K | 728.10 | Joback Method |
| cpg | 523.55 | J/mol×K | 761.07 | Joback Method |

# 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=C1665594&Units=SI |

# 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 |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |