# 1-Pentanamine, n-ethyl-

**Other names:** Pentylamine, N-ethyl-
N-Ethylpentylamine
ethylamyl-amine
**Inchi:** InChI=1S/C7H17N/c1-3-5-6-7-8-4-2/h8H,3-7H2,1-2H3
**InchiKey:** ICVFPLUSMYSIFO-UHFFFAOYSA-N
**Formula:** C7H17N
**SMILES:** CCCCCNCC
**Mol. weight [g/mol]:** 115.22

# Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| af | 0.4399 | | Cheméo Relay (1.0) |
| gf | 97.45 | kJ/mol | Joback Method |
| hf | -136.20 | kJ/mol | Cheméo Relay (1.0) |
| hfus | 18.98 | kJ/mol | Joback Method |
| hvap | 42.49 | kJ/mol | Cheméo Relay (1.0) |
| ie | 8.10 | eV | Cheméo Relay (1.0) |
| log10ws | -0.99 | | Cheméo Relay (1.0) |
| logp | 1.786 | | Crippen Method |
| mcvol | 119.470 | ml/mol | McGowan Method |
| pc | 2838.39 | kPa | Joback Method |
| rinpol | 855.00 | | NIST Webbook |
| tb | 410.67 | K | Cheméo Relay (1.0) |
| tc | 568.91 | K | Cheméo Relay (1.0) |
| tf | 215.41 | K | Cheméo Relay (1.0) |
| vc | 0.456 | m3/kmol | Cheméo Relay (1.0) |

# Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 238.17 | J/mol×K | 409.73 | Joback Method |
| cpg | 250.74 | J/mol×K | 437.93 | Joback Method |
| cpg | 262.84 | J/mol×K | 466.14 | Joback Method |
| cpg | 274.48 | J/mol×K | 494.34 | Joback Method |

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|---|---|---|---|---|
| cpg | 285.67 | J/mol×K | 522.55 | Joback Method |
| cpg | 296.42 | J/mol×K | 550.75 | Joback Method |
| cpg | 306.74 | J/mol×K | 578.95 | Joback Method |

# Sources

| | |
|---|---|
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |
| **Cheméo Relay (1.0):** | |
| **Cheméo Relay (1.0, beta):** | |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=C17839268&Units=SI |
| **Joback Method:** | https://en.wikipedia.org/wiki/Joback_method |
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |

# Legend

| | |
|---|---|
| **af:** | Acentric Factor |
| **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 |
| **rinpol:** | Non-polar retention indices |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |