# Benzamide, N,N-bis(2-ethylhexyl)-4-ethyl-

**Inchi:** InChI=1S/C25H43NO/c1-6-11-13-22(9-4)19-26(20-23(10-5)14-12-7-2)25(27)24-17-15-21
**InchiKey:** QMLQJSKZDBTCFH-UHFFFAOYSA-N
**Formula:** C25H43NO
**SMILES:** CCCCC(CC)CN(CC(CC)CCCC)C(=O)c1ccc(CC)cc1
**Mol. weight [g/mol]:** 373.62

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 239.38 | kJ/mol | Joback Method |
| hf | -389.88 | kJ/mol | Joback Method |
| hfus | 51.73 | kJ/mol | Joback Method |
| hvap | 82.19 | kJ/mol | Joback Method |
| log10ws | -7.80 | | Crippen Method |
| logp | 7.124 | | Crippen Method |
| mcvol | 350.900 | ml/mol | McGowan Method |
| pc | 961.48 | kPa | Joback Method |
| rinpol | 2520.00 | | NIST Webbook |
| rinpol | 2520.00 | | NIST Webbook |
| tb | 868.49 | K | Joback Method |
| tc | 1067.23 | K | Joback Method |
| tf | 462.85 | K | Joback Method |
| vc | 1.339 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 1142.63 | J/mol×K | 868.49 | Joback Method |
| cpg | 1162.75 | J/mol×K | 901.61 | Joback Method |
| cpg | 1181.67 | J/mol×K | 934.74 | Joback Method |
| cpg | 1199.44 | J/mol×K | 967.86 | Joback Method |
| cpg | 1216.14 | J/mol×K | 1000.98 | Joback Method |
| cpg | 1231.84 | J/mol×K | 1034.10 | Joback Method |
| cpg | 1246.61 | J/mol×K | 1067.23 | Joback Method |

# Sources

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|---|---|
| **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=U308547&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |

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