# Pentafluoropropanamide, N,N-bis(2-ethylhexyl)-

**Inchi:** InChI=1S/C19H34F5NO/c1-5-9-11-15(7-3)13-25(14-16(8-4)12-10-6-2)17(26)18(20,21)19

**InchiKey:** DDIQDKUPDGNIMH-UHFFFAOYSA-N

**Formula:** C19H34F5NO

**SMILES:** CCCCC(CC)CN(CC(CC)CCCC)C(=O)C(F)(F)C(F)(F)F

**Mol. weight [g/mol]:** 387.47

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -882.29 | kJ/mol | Joback Method |
| hf | -1489.15 | kJ/mol | Joback Method |
| hfus | 43.11 | kJ/mol | Joback Method |
| hvap | 59.22 | kJ/mol | Joback Method |
| log10ws | -6.61 | | Crippen Method |
| logp | 6.445 | | Crippen Method |
| mcvol | 298.970 | ml/mol | McGowan Method |
| pc | 1006.53 | kPa | Joback Method |
| rinpol | 1705.00 | | NIST Webbook |
| rinpol | 1705.00 | | NIST Webbook |
| tb | 689.44 | K | Joback Method |
| tc | 850.82 | K | Joback Method |
| tf | 364.08 | K | Joback Method |
| vc | 1.179 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 901.67 | J/mol×K | 689.44 | Joback Method |
| cpg | 920.01 | J/mol×K | 716.34 | Joback Method |
| cpg | 937.43 | J/mol×K | 743.23 | Joback Method |
| cpg | 953.95 | J/mol×K | 770.13 | Joback Method |
| cpg | 969.64 | J/mol×K | 797.03 | Joback Method |
| cpg | 984.54 | J/mol×K | 823.92 | Joback Method |
| cpg | 998.69 | J/mol×K | 850.82 | Joback Method |

# Sources

| | |
|---|---|
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=U308512&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 |
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |

# Legend

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|---|---|
| **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 |