# 4-Ethyl-4-nonanolide

**Inchi:** InChI=1S/C11H20O2/c1-3-5-6-8-11(4-2)9-7-10(12)13-11/h3-9H2,1-2H3
**InchiKey:** MCSQOYJWMCVLHU-UHFFFAOYSA-N
**Formula:** C11H20O2
**SMILES:** CCCCCC1(CC)CCC(=O)O1
**Mol. weight [g/mol]:** 184.28

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -135.91 | kJ/mol | Joback Method |
| hf | -464.35 | kJ/mol | Joback Method |
| hfus | 19.37 | kJ/mol | Joback Method |
| hvap | 47.94 | kJ/mol | Joback Method |
| log10ws | -3.30 | | Crippen Method |
| logp | 3.053 | | Crippen Method |
| mcvol | 162.430 | ml/mol | McGowan Method |
| pc | 2443.48 | kPa | Joback Method |
| rinpol | 1459.00 | | NIST Webbook |
| rinpol | 1459.00 | | NIST Webbook |
| ripol | 2050.00 | | NIST Webbook |
| tb | 561.37 | K | Joback Method |
| tc | 770.73 | K | Joback Method |
| tf | 343.32 | K | Joback Method |
| vc | 0.619 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 418.15 | J/mol×K | 561.37 | Joback Method |
| cpg | 435.86 | J/mol×K | 596.26 | Joback Method |
| cpg | 452.67 | J/mol×K | 631.16 | Joback Method |
| cpg | 468.64 | J/mol×K | 666.05 | Joback Method |
| cpg | 483.86 | J/mol×K | 700.94 | Joback Method |
| cpg | 498.42 | J/mol×K | 735.84 | Joback Method |
| cpg | 512.41 | J/mol×K | 770.73 | 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=R434692&Units=SI |

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