# Sarcosine, N-(1-naphthoyl)-, ethyl ester

**Inchi:** InChI=1S/C16H17NO3/c1-3-20-15(18)11-17(2)16(19)14-10-6-8-12-7-4-5-9-13(12)14/h4-1
**InchiKey:** BWXLOQQWFADZBC-UHFFFAOYSA-N
**Formula:** C16H17NO3
**SMILES:** CCOC(=O)CN(C)C(=O)c1cccc2ccccc12
**Mol. weight [g/mol]:** 271.31

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 41.21 | kJ/mol | Joback Method |
| hf | -247.29 | kJ/mol | Joback Method |
| hfus | 35.27 | kJ/mol | Joback Method |
| hvap | 73.73 | kJ/mol | Joback Method |
| log10ws | -3.54 | | Crippen Method |
| logp | 2.475 | | Crippen Method |
| mcvol | 212.070 | ml/mol | McGowan Method |
| pc | 2298.11 | kPa | Joback Method |
| rinpol | 2316.00 | | NIST Webbook |
| tb | 758.72 | K | Joback Method |
| tc | 980.05 | K | Joback Method |
| tf | 496.28 | K | Joback Method |
| vc | 0.793 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 592.38 | J/mol×K | 758.72 | Joback Method |
| cpg | 606.32 | J/mol×K | 795.61 | Joback Method |
| cpg | 619.25 | J/mol×K | 832.50 | Joback Method |
| cpg | 631.22 | J/mol×K | 869.39 | Joback Method |
| cpg | 642.32 | J/mol×K | 906.27 | Joback Method |
| cpg | 652.60 | J/mol×K | 943.16 | Joback Method |
| cpg | 662.13 | J/mol×K | 980.05 | Joback Method |

# Sources

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|---|---|
| **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=U321398&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 |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |