# Sarcosine, N-valeryl-, undecyl ester

**Inchi:** InChI=1S/C19H37NO3/c1-4-6-8-9-10-11-12-13-14-16-23-19(22)17-20(3)18(21)15-7-5-2/h
**InchiKey:** HTVWMCMFIIJGGG-UHFFFAOYSA-N
**Formula:** C19H37NO3
**SMILES:** CCCCCCCCCCCOC(=O)CN(C)C(=O)CCCC
**Mol. weight [g/mol]:** 327.50

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -142.96 | kJ/mol | Joback Method |
| hf | -725.34 | kJ/mol | Joback Method |
| hfus | 52.37 | kJ/mol | Joback Method |
| hvap | 75.83 | kJ/mol | Joback Method |
| log10ws | -4.98 | | Crippen Method |
| logp | 4.709 | | Crippen Method |
| mcvol | 297.560 | ml/mol | McGowan Method |
| pc | 1160.87 | kPa | Joback Method |
| rinpol | 2407.00 | | NIST Webbook |
| rinpol | 2407.00 | | NIST Webbook |
| tb | 776.72 | K | Joback Method |
| tc | 956.01 | K | Joback Method |
| tf | 458.45 | K | Joback Method |
| vc | 1.147 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 920.24 | J/mol×K | 776.72 | Joback Method |
| cpg | 938.43 | J/mol×K | 806.60 | Joback Method |
| cpg | 955.66 | J/mol×K | 836.48 | Joback Method |
| cpg | 971.95 | J/mol×K | 866.36 | Joback Method |
| cpg | 987.33 | J/mol×K | 896.24 | Joback Method |
| cpg | 1001.84 | J/mol×K | 926.13 | Joback Method |
| cpg | 1015.50 | J/mol×K | 956.01 | Joback Method |

# Sources

| | |
|---|---|
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=U321566&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

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