

# L-Norvaline, N-isobutoxycarbonyl-, pentyl ester

**Inchi:** InChI=1S/C15H29NO4/c1-5-7-8-10-19-14(17)13(9-6-2)16-15(18)20-11-12(3)4/h12-13H,5  
**InchiKey:** QQLUMINGEMLSLV-UHFFFAOYSA-N  
**Formula:** C15H29NO4  
**SMILES:** CCCCCOC(=O)C(CCC)NC(=O)OCC(C)C  
**Mol. weight [g/mol]:** 287.40

## Physical Properties

| Property code | Value   | Unit   | Source             |
|---------------|---------|--------|--------------------|
| hf            | -986.75 | kJ/mol | Cheméo Relay (1.0) |
| hfus          | 38.23   | kJ/mol | Joback Method      |
| hvap          | 83.43   | kJ/mol | Cheméo Relay (1.0) |
| log10ws       | -3.80   |        | Cheméo Relay (1.0) |
| logp          | 3.271   |        | Crippen Method     |
| mcvol         | 247.070 | ml/mol | McGowan Method     |
| rinpol        | 1706.00 |        | NIST Webbook       |
| tb            | 571.42  | K      | Cheméo Relay (1.0) |
| tf            | 275.69  | K      | Cheméo Relay (1.0) |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 738.37 | J/mol×K | 744.47          | Joback Method |
| cpg           | 754.49 | J/mol×K | 775.11          | Joback Method |
| cpg           | 769.73 | J/mol×K | 805.76          | Joback Method |
| cpg           | 784.09 | J/mol×K | 836.40          | Joback Method |
| cpg           | 797.58 | J/mol×K | 867.04          | Joback Method |
| cpg           | 810.20 | J/mol×K | 897.69          | Joback Method |
| cpg           | 821.97 | J/mol×K | 928.33          | Joback Method |

## Sources

|                                  |                                                                                                                                           |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Crippen Method:</b>           | <a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>                         |
| <b>Cheméo Relay (1.0):</b>       |                                                                                                                                           |
| <b>Cheméo Relay (1.0, beta):</b> |                                                                                                                                           |
| <b>NIST Webbook:</b>             | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=U320715&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U320715&amp;Units=SI</a> |
| <b>Joback Method:</b>            | <a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>                                     |
| <b>McGowan Method:</b>           | <a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>                     |
| <b>Crippen Method:</b>           | <a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</a>                                 |

## Legend

|                 |                                                 |
|-----------------|-------------------------------------------------|
| <b>cpg:</b>     | Ideal gas heat capacity                         |
| <b>hf:</b>      | Enthalpy of formation at standard conditions    |
| <b>hfus:</b>    | Enthalpy of fusion at standard conditions       |
| <b>hvap:</b>    | Enthalpy of vaporization at standard conditions |
| <b>log10ws:</b> | Log10 of Water solubility in mol/l              |
| <b>logp:</b>    | Octanol/Water partition coefficient             |
| <b>mcvol:</b>   | McGowan's characteristic volume                 |
| <b>rinpol:</b>  | Non-polar retention indices                     |
| <b>tb:</b>      | Normal Boiling Point Temperature                |
| <b>tf:</b>      | Normal melting (fusion) point                   |

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