

# L-valine, n-heptafluorobutyryl-, nonyl ester

|                      |                                                                                  |
|----------------------|----------------------------------------------------------------------------------|
| Inchi:               | InChI=1S/C18H28F7NO3/c1-4-5-6-7-8-9-10-11-29-14(27)13(12(2)3)26-15(28)16(19,20)1 |
| InchiKey:            | MZBIKFHJDOTOOB-UHFFFAOYSA-N                                                      |
| Formula:             | C18H28F7NO3                                                                      |
| SMILES:              | CCCCCCCCCOC(=O)C(NC(=O)C(F)(F)C(F)(F)C(F)(F)F)C(C)C                              |
| Mol. weight [g/mol]: | 439.41                                                                           |

## Physical Properties

| Property code | Value   | Unit   | Source             |
|---------------|---------|--------|--------------------|
| hfus          | 44.13   | kJ/mol | Joback Method      |
| log10ws       | -6.41   |        | Cheméo Relay (1.0) |
| logp          | 5.254   |        | Crippen Method     |
| mcvol         | 295.860 | ml/mol | McGowan Method     |
| rinpol        | 1786.00 |        | NIST Webbook       |
| tb            | 546.39  | K      | Cheméo Relay (1.0) |
| tf            | 318.43  | K      | Cheméo Relay (1.0) |

## Temperature Dependent Properties

| Property code | Value   | Unit    | Temperature [K] | Source        |
|---------------|---------|---------|-----------------|---------------|
| cpg           | 939.82  | J/mol×K | 775.89          | Joback Method |
| cpg           | 955.13  | J/mol×K | 805.15          | Joback Method |
| cpg           | 969.51  | J/mol×K | 834.40          | Joback Method |
| cpg           | 983.03  | J/mol×K | 863.66          | Joback Method |
| cpg           | 995.74  | J/mol×K | 892.91          | Joback Method |
| cpg           | 1007.71 | J/mol×K | 922.17          | Joback Method |
| cpg           | 1018.99 | J/mol×K | 951.43          | Joback Method |

## Sources

|                |                                                                                                                                           |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| NIST Webbook:  | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=U320901&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U320901&amp;Units=SI</a> |
| Joback Method: | <a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>                                     |

**McGowan Method:** <http://link.springer.com/article/10.1007/BF02311772>  
**Crippen Method:** <http://pubs.acs.org/doi/abs/10.1021/ci990307l>  
**Crippen Method:** [https://www.chemeo.com/doc/models/crippen\\_log10ws](https://www.chemeo.com/doc/models/crippen_log10ws)  
**Cheméo Relay (1.0):**  
**Cheméo Relay (1.0, beta):**

## Legend

|                 |                                           |
|-----------------|-------------------------------------------|
| <b>cpg:</b>     | Ideal gas heat capacity                   |
| <b>hfus:</b>    | Enthalpy of fusion 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             |

Latest version available from:

<https://www.chemeo.com/cid/61-106-6/L-valine-n-heptafluorobutyryl-nonyl-ester.pdf>

Generated by Cheméo on 2026-07-21 15:00:51.205861803 +0000 UTC m=+157147.047747186.

Cheméo (<https://www.chemeo.com>) is the biggest free database of chemical and physical data for the process industry.