# Undecyl heptafluorobutyrate

**Other names:** Undecyl heptafluorobutyrate
**Inchi:** InChI=1S/C15H23F7O2/c1-2-3-4-5-6-7-8-9-10-11-24-12(23)13(16,17)14(18,19)15(20,21)
**InchiKey:** BAMRUWAHGSFKKX-UHFFFAOYSA-N
**Formula:** C15H23F7O2
**SMILES:** CCCCCCCCCCCOC(=O)C(F)(F)C(F)(F)C(F)(F)F
**Mol. weight [g/mol]:** 368.33

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| hf | -2069.54 | kJ/mol | Cheméo Relay (1.0) |
| hfus | 36.71 | kJ/mol | Joback Method |
| hvap | 74.75 | kJ/mol | Cheméo Relay (1.0) |
| log10ws | -6.67 | | Cheméo Relay (1.0) |
| logp | 5.893 | | Crippen Method |
| mcvol | 242.040 | ml/mol | McGowan Method |
| pc | 1214.05 | kPa | Joback Method |
| rinpol | 1386.00 | | NIST Webbook |
| rinpol | 1392.80 | | NIST Webbook |
| tb | 496.01 | K | Cheméo Relay (1.0) |
| tc | 609.72 | K | Cheméo Relay (1.0) |
| tf | 240.37 | K | Cheméo Relay (1.0) |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 684.52 | J/mol×K | 604.09 | Joback Method |
| cpg | 699.86 | J/mol×K | 629.15 | Joback Method |
| cpg | 714.42 | J/mol×K | 654.20 | Joback Method |
| cpg | 728.25 | J/mol×K | 679.26 | Joback Method |
| cpg | 741.37 | J/mol×K | 704.31 | Joback Method |
| cpg | 753.82 | J/mol×K | 729.37 | Joback Method |
| cpg | 765.63 | J/mol×K | 754.43 | 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 |
| **Cheméo Relay (1.0):** | |
| **Cheméo Relay (1.0, beta):** | |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=C959103743&Units=SI |
| **Joback Method:** | https://en.wikipedia.org/wiki/Joback_method |
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |

# Legend

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|---|---|
| **cpg:** | Ideal gas heat capacity |
| **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 |