# Succinic acid, 2,2,3,3-tetrafluoropropyl 2-hexyl ester

**Inchi:** InChI=1S/C13H20F4O4/c1-3-4-5-9(2)21-11(19)7-6-10(18)20-8-13(16,17)12(14)15/h9,12

**InchiKey:** CGALUNFNQICVGU-UHFFFAOYSA-N

**Formula:** C13H20F4O4

**SMILES:** CCCCC(C)OC(=O)CCC(=O)OCC(F)(F)C(F)F

**Mol. weight [g/mol]:** 316.29

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -1190.54 | kJ/mol | Joback Method |
| hf | -1605.00 | kJ/mol | Joback Method |
| hfus | 32.86 | kJ/mol | Joback Method |
| hvap | 57.50 | kJ/mol | Joback Method |
| log10ws | -3.73 | | Crippen Method |
| logp | 3.332 | | Crippen Method |
| mcvol | 215.990 | ml/mol | McGowan Method |
| pc | 1575.95 | kPa | Joback Method |
| rinpol | 1472.00 | | NIST Webbook |
| rinpol | 1472.00 | | NIST Webbook |
| tb | 642.39 | K | Joback Method |
| tc | 807.96 | K | Joback Method |
| tf | 355.37 | K | Joback Method |
| vc | 0.861 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 604.03 | J/mol×K | 642.39 | Joback Method |
| cpg | 617.98 | J/mol×K | 669.98 | Joback Method |
| cpg | 631.26 | J/mol×K | 697.58 | Joback Method |
| cpg | 643.86 | J/mol×K | 725.17 | Joback Method |
| cpg | 655.81 | J/mol×K | 752.77 | Joback Method |
| cpg | 667.12 | J/mol×K | 780.36 | Joback Method |
| cpg | 677.80 | J/mol×K | 807.96 | Joback Method |

# Sources

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|---|---|
| **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=U390677&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |

# 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 |