# Succinic acid, 2,2,3,3-tetrafluoropropyl non-5-yn-3-yl ester

**Inchi:** InChI=1S/C16H22F4O4/c1-3-5-6-7-8-12(4-2)24-14(22)10-9-13(21)23-11-16(19,20)15(17
**InchiKey:** SSQLOHJDWMEGBZ-UHFFFAOYSA-N
**Formula:** C16H22F4O4
**SMILES:** CCCC#CCC(CC)OC(=O)CCC(=O)OCC(F)(F)C(F)F
**Mol. weight [g/mol]:** 354.34

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -962.48 | kJ/mol | Joback Method |
| hf | -1394.62 | kJ/mol | Joback Method |
| hfus | 43.75 | kJ/mol | Joback Method |
| hvap | 66.33 | kJ/mol | Joback Method |
| log10ws | -4.78 | | Crippen Method |
| logp | 3.726 | | Crippen Method |
| mcvol | 249.660 | ml/mol | McGowan Method |
| pc | 1427.22 | kPa | Joback Method |
| rinpol | 1781.00 | | NIST Webbook |
| rinpol | 1781.00 | | NIST Webbook |
| tb | 720.03 | K | Joback Method |
| tc | 898.57 | K | Joback Method |
| tf | 495.28 | K | Joback Method |
| vc | 0.991 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 722.38 | J/mol×K | 720.03 | Joback Method |
| cpg | 736.99 | J/mol×K | 749.79 | Joback Method |
| cpg | 750.79 | J/mol×K | 779.54 | Joback Method |
| cpg | 763.79 | J/mol×K | 809.30 | Joback Method |
| cpg | 776.02 | J/mol×K | 839.06 | Joback Method |
| cpg | 787.49 | J/mol×K | 868.81 | Joback Method |
| cpg | 798.22 | J/mol×K | 898.57 | Joback Method |

# Sources

| | |
|---|---|
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=U391006&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

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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 |