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

**Inchi:** InChI=1S/C16H18F4O4/c17-15(18)16(19,20)11-24-14(22)9-8-13(21)23-10-4-7-12-5-2-1-

**InchiKey:** ROOPMWIEOGQMQC-UHFFFAOYSA-N

**Formula:** C16H18F4O4

**SMILES:** O=C(CCC(=O)OCC(F)(F)C(F)F)OCCCc1ccccc1

**Mol. weight [g/mol]:** 350.31

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -1050.43 | kJ/mol | Joback Method |
| hf | -1425.11 | kJ/mol | Joback Method |
| hfus | 38.19 | kJ/mol | Joback Method |
| hvap | 66.85 | kJ/mol | Joback Method |
| log10ws | -3.98 | | Crippen Method |
| logp | 3.386 | | Crippen Method |
| mcvol | 234.500 | ml/mol | McGowan Method |
| pc | 1620.68 | kPa | Joback Method |
| rinpol | 1961.00 | | NIST Webbook |
| rinpol | 1961.00 | | NIST Webbook |
| tb | 738.15 | K | Joback Method |
| tc | 924.86 | K | Joback Method |
| tf | 430.60 | K | Joback Method |
| vc | 0.926 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 683.00 | J/mol×K | 738.15 | Joback Method |
| cpg | 696.62 | J/mol×K | 769.27 | Joback Method |
| cpg | 709.34 | J/mol×K | 800.39 | Joback Method |
| cpg | 721.19 | J/mol×K | 831.51 | Joback Method |
| cpg | 732.20 | J/mol×K | 862.62 | Joback Method |
| cpg | 742.41 | J/mol×K | 893.74 | Joback Method |
| cpg | 751.83 | J/mol×K | 924.86 | 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=U389721&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |

# Legend

| | |
|---|---|
| **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 |