# Succinic acid, hept-2-yl 4-biphenyl ester

**Inchi:** InChI=1S/C23H28O4/c1-3-4-6-9-18(2)26-22(24)16-17-23(25)27-21-14-12-20(13-15-21)1
**InchiKey:** FYAJAWZPUKQVSN-UHFFFAOYSA-N
**Formula:** C23H28O4
**SMILES:** CCCCCC(C)OC(=O)CCC(=O)Oc1ccc(-c2ccccc2)cc1
**Mol. weight [g/mol]:** 368.47

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -112.31 | kJ/mol | Joback Method |
| hf | -551.34 | kJ/mol | Joback Method |
| hfus | 45.07 | kJ/mol | Joback Method |
| hvap | 89.93 | kJ/mol | Joback Method |
| log10ws | -7.13 | | Crippen Method |
| logp | 5.551 | | Crippen Method |
| mcvol | 302.290 | ml/mol | McGowan Method |
| pc | 1393.33 | kPa | Joback Method |
| rinpol | 2923.00 | | NIST Webbook |
| rinpol | 2923.00 | | NIST Webbook |
| tb | 936.12 | K | Joback Method |
| tc | 1159.77 | K | Joback Method |
| tf | 543.65 | K | Joback Method |
| vc | 1.149 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 957.46 | J/mol×K | 936.12 | Joback Method |
| cpg | 971.93 | J/mol×K | 973.39 | Joback Method |
| cpg | 985.01 | J/mol×K | 1010.67 | Joback Method |
| cpg | 996.76 | J/mol×K | 1047.94 | Joback Method |
| cpg | 1007.23 | J/mol×K | 1085.22 | Joback Method |
| cpg | 1016.46 | J/mol×K | 1122.49 | Joback Method |
| cpg | 1024.50 | J/mol×K | 1159.77 | Joback Method |
| dvisc | 0.0004164 | Pa×s | 543.65 | Joback Method |

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|---|---|---|---|---|
| dvisc | 0.0002184 | Pa×s | 609.06 | Joback Method |
| dvisc | 0.0001298 | Pa×s | 674.47 | Joback Method |
| dvisc | 0.0000846 | Pa×s | 739.88 | Joback Method |
| dvisc | 0.0000591 | Pa×s | 805.30 | Joback Method |
| dvisc | 0.0000436 | Pa×s | 870.71 | Joback Method |
| dvisc | 0.0000335 | Pa×s | 936.12 | Joback Method |

# Sources

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|---|---|
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=U390085&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

| | |
|---|---|
| **cpg:** | Ideal gas heat capacity |
| **dvisc:** | Dynamic viscosity |
| **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 |

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