# Succinic acid, cyclohexylmethyl 1-phenylpropyl ester

**Inchi:** InChI=1S/C20H28O4/c1-2-18(17-11-7-4-8-12-17)24-20(22)14-13-19(21)23-15-16-9-5-3-6

**InchiKey:** AYEAZUYCUDKKBD-UHFFFAOYSA-N

**Formula:** C20H28O4

**SMILES:** CCC(OC(=O)CCC(=O)OCC1CCCCC1)c1ccccc1

**Mol. weight [g/mol]:** 332.43

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -215.90 | kJ/mol | Joback Method |
| hf | -660.16 | kJ/mol | Joback Method |
| hfus | 35.48 | kJ/mol | Joback Method |
| hvap | 80.74 | kJ/mol | Joback Method |
| log10ws | -5.13 | | Crippen Method |
| logp | 4.585 | | Crippen Method |
| mcvol | 272.920 | ml/mol | McGowan Method |
| pc | 1597.44 | kPa | Joback Method |
| rinpol | 2393.00 | | NIST Webbook |
| rinpol | 2393.00 | | NIST Webbook |
| tb | 855.37 | K | Joback Method |
| tc | 1076.59 | K | Joback Method |
| tf | 478.28 | K | Joback Method |
| vc | 1.022 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 874.10 | J/mol×K | 855.37 | Joback Method |
| cpg | 891.38 | J/mol×K | 892.24 | Joback Method |
| cpg | 907.13 | J/mol×K | 929.11 | Joback Method |
| cpg | 921.40 | J/mol×K | 965.98 | Joback Method |
| cpg | 934.21 | J/mol×K | 1002.85 | Joback Method |
| cpg | 945.62 | J/mol×K | 1039.72 | Joback Method |
| cpg | 955.66 | J/mol×K | 1076.59 | Joback Method |
| dvisc | 0.0009144 | Pa×s | 478.28 | Joback Method |

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|---|---|---|---|---|
| dvisc | 0.0004281 | Pa×s | 541.13 | Joback Method |
| dvisc | 0.0002347 | Pa×s | 603.98 | Joback Method |
| dvisc | 0.0001441 | Pa×s | 666.83 | Joback Method |
| dvisc | 0.0000962 | Pa×s | 729.67 | Joback Method |
| dvisc | 0.0000685 | Pa×s | 792.52 | Joback Method |
| dvisc | 0.0000513 | Pa×s | 855.37 | Joback Method |

# Sources

| | |
|---|---|
| **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=U389931&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |

# 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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