# Succinic acid, cyclohexylmethyl 2-decyl ester

**Inchi:** InChI=1S/C21H38O4/c1-3-4-5-6-7-9-12-18(2)25-21(23)16-15-20(22)24-17-19-13-10-8-11
**InchiKey:** KWXGRCXXBPEPRK-UHFFFAOYSA-N
**Formula:** C21H38O4
**SMILES:** CCCCCCCCC(C)OC(=O)CCC(=O)OCC1CCCCC1
**Mol. weight [g/mol]:** 354.52

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -319.89 | kJ/mol | Joback Method |
| hf | -917.33 | kJ/mol | Joback Method |
| hfus | 44.03 | kJ/mol | Joback Method |
| hvap | 80.69 | kJ/mol | Joback Method |
| log10ws | -6.10 | | Crippen Method |
| logp | 5.572 | | Crippen Method |
| mcvol | 310.770 | ml/mol | McGowan Method |
| pc | 1165.63 | kPa | Joback Method |
| rinpol | 2461.00 | | NIST Webbook |
| rinpol | 2461.00 | | NIST Webbook |
| tb | 851.57 | K | Joback Method |
| tc | 1050.20 | K | Joback Method |
| tf | 463.13 | K | Joback Method |
| vc | 1.187 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 1028.11 | J/mol×K | 851.57 | Joback Method |
| cpg | 1047.25 | J/mol×K | 884.68 | Joback Method |
| cpg | 1065.01 | J/mol×K | 917.78 | Joback Method |
| cpg | 1081.44 | J/mol×K | 950.89 | Joback Method |
| cpg | 1096.55 | J/mol×K | 983.99 | Joback Method |
| cpg | 1110.37 | J/mol×K | 1017.10 | Joback Method |
| cpg | 1122.92 | J/mol×K | 1050.20 | Joback Method |
| dvisc | 0.0010048 | Pa×s | 463.13 | Joback Method |

| | | | | |
|---|---|---|---|---|
| dvisc | 0.0004321 | Pa×s | 527.87 | Joback Method |
| dvisc | 0.0002235 | Pa×s | 592.61 | Joback Method |
| dvisc | 0.0001316 | Pa×s | 657.35 | Joback Method |
| dvisc | 0.0000852 | Pa×s | 722.09 | Joback Method |
| dvisc | 0.0000593 | Pa×s | 786.83 | Joback Method |
| dvisc | 0.0000436 | Pa×s | 851.57 | 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=U390535&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |

# 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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