# Succinic acid, docosyl hexyl ester

**Inchi:** InChI=1S/C32H62O4/c1-3-5-7-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-26-30-
**InchiKey:** HHEHWOFGIISUKS-UHFFFAOYSA-N
**Formula:** C32H62O4
**SMILES:** CCCCCCCCCCCCCCCCCCCCCCCCOC(=O)CCC(=O)OCCCCCC
**Mol. weight [g/mol]:** 510.83

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -249.28 | kJ/mol | Joback Method |
| hf | -1193.41 | kJ/mol | Joback Method |
| hfus | 84.21 | kJ/mol | Joback Method |
| hvap | 105.14 | kJ/mol | Joback Method |
| log10ws | -10.94 | | Crippen Method |
| logp | 10.255 | | Crippen Method |
| mcvol | 476.620 | ml/mol | McGowan Method |
| pc | 567.43 | kPa | Joback Method |
| rinpol | 3548.00 | | NIST Webbook |
| tb | 1084.14 | K | Joback Method |
| tc | 1385.01 | K | Joback Method |
| tf | 594.72 | K | Joback Method |
| vc | 1.875 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 1736.78 | J/mol×K | 1084.14 | Joback Method |
| cpg | 1762.91 | J/mol×K | 1134.29 | Joback Method |
| cpg | 1785.84 | J/mol×K | 1184.43 | Joback Method |
| cpg | 1805.77 | J/mol×K | 1234.58 | Joback Method |
| cpg | 1822.87 | J/mol×K | 1284.72 | Joback Method |
| cpg | 1837.33 | J/mol×K | 1334.87 | Joback Method |
| cpg | 1849.33 | J/mol×K | 1385.01 | Joback Method |
| dvisc | 0.0001803 | Pa×s | 594.72 | Joback Method |
| dvisc | 0.0000791 | Pa×s | 676.29 | Joback Method |

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|---|---|---|---|---|
| dvisc | 0.0000415 | Pa×s | 757.86 | Joback Method |
| dvisc | 0.0000246 | Pa×s | 839.43 | Joback Method |
| dvisc | 0.0000161 | Pa×s | 921.00 | Joback Method |
| dvisc | 0.0000112 | Pa×s | 1002.57 | Joback Method |
| dvisc | 0.0000083 | Pa×s | 1084.14 | Joback Method |

# Sources

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|---|---|
| **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=U349577&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |

# Legend

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