# Succinic acid, 2-naphthylmethyl tetradecyl ester

**Inchi:** InChI=1S/C29H42O4/c1-2-3-4-5-6-7-8-9-10-11-12-15-22-32-28(30)20-21-29(31)33-24-25

**InchiKey:** JBJZJRCKRLGZIC-UHFFFAOYSA-N

**Formula:** C29H42O4

**SMILES:** CCCCCCCCCCCCCCOC(=O)CCC(=O)OCc1ccc2ccccc2c1

**Mol. weight [g/mol]:** 454.64

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -65.11 | kJ/mol | Joback Method |
| hf | -715.36 | kJ/mol | Joback Method |
| hfus | 67.11 | kJ/mol | Joback Method |
| hvap | 103.04 | kJ/mol | Joback Method |
| log10ws | -9.42 | | Crippen Method |
| logp | 7.907 | | Crippen Method |
| mcvol | 391.130 | ml/mol | McGowan Method |
| pc | 891.60 | kPa | Joback Method |
| rinpol | 3533.00 | | NIST Webbook |
| rinpol | 3533.00 | | NIST Webbook |
| tb | 1066.14 | K | Joback Method |
| tc | 1308.34 | K | Joback Method |
| tf | 632.55 | K | Joback Method |
| vc | 1.522 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 1349.48 | J/mol×K | 1066.14 | Joback Method |
| cpg | 1366.53 | J/mol×K | 1106.51 | Joback Method |
| cpg | 1382.14 | J/mol×K | 1146.87 | Joback Method |
| cpg | 1396.44 | J/mol×K | 1187.24 | Joback Method |
| cpg | 1409.53 | J/mol×K | 1227.61 | Joback Method |
| cpg | 1421.53 | J/mol×K | 1267.97 | Joback Method |
| cpg | 1432.55 | J/mol×K | 1308.34 | Joback Method |
| dvisc | 0.0002853 | Pa×s | 632.55 | Joback Method |

| | | | | |
|---|---|---|---|---|
| dvisc | 0.0001628 | Pa×s | 704.82 | Joback Method |
| dvisc | 0.0001031 | Pa×s | 777.08 | Joback Method |
| dvisc | 0.0000706 | Pa×s | 849.35 | Joback Method |
| dvisc | 0.0000513 | Pa×s | 921.61 | Joback Method |
| dvisc | 0.0000390 | Pa×s | 993.88 | Joback Method |
| dvisc | 0.0000308 | Pa×s | 1066.14 | Joback Method |

# Sources

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|---|---|
| **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 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=U389993&Units=SI |

# 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 |