# Fumaric acid, pent-4-en-2-yl tetradecyl ester

**Inchi:** InChI=1S/C23H40O4/c1-4-6-7-8-9-10-11-12-13-14-15-16-20-26-22(24)18-19-23(25)27-2
**InchiKey:** VCUQKMACEJNVBR-VHEBQXMUSA-N
**Formula:** C23H40O4
**SMILES:** C=CCC(C)OC(=O)C=CC(=O)OCCCCCCCCCCCCCC
**Mol. weight [g/mol]:** 380.56

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -159.44 | kJ/mol | Joback Method |
| hf | -770.28 | kJ/mol | Joback Method |
| hfus | 56.30 | kJ/mol | Joback Method |
| hvap | 84.00 | kJ/mol | Joback Method |
| log10ws | -6.99 | | Crippen Method |
| logp | 6.295 | | Crippen Method |
| mcvol | 341.210 | ml/mol | McGowan Method |
| pc | 957.32 | kPa | Joback Method |
| rinpol | 2595.00 | | NIST Webbook |
| rinpol | 2595.00 | | NIST Webbook |
| tb | 878.62 | K | Joback Method |
| tc | 1075.92 | K | Joback Method |
| tf | 471.45 | K | Joback Method |
| vc | 1.327 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 1099.87 | J/mol×K | 878.62 | Joback Method |
| cpg | 1118.33 | J/mol×K | 911.50 | Joback Method |
| cpg | 1135.64 | J/mol×K | 944.39 | Joback Method |
| cpg | 1151.84 | J/mol×K | 977.27 | Joback Method |
| cpg | 1166.96 | J/mol×K | 1010.16 | Joback Method |
| cpg | 1181.07 | J/mol×K | 1043.04 | Joback Method |
| cpg | 1194.18 | J/mol×K | 1075.92 | Joback Method |
| dvisc | 0.0006567 | Pa×s | 471.45 | Joback Method |

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|---|---|---|---|---|
| dvisc | 0.0002824 | Pa×s | 539.31 | Joback Method |
| dvisc | 0.0001467 | Pa×s | 607.17 | Joback Method |
| dvisc | 0.0000869 | Pa×s | 675.03 | Joback Method |
| dvisc | 0.0000567 | Pa×s | 742.90 | Joback Method |
| dvisc | 0.0000397 | Pa×s | 810.76 | Joback Method |
| dvisc | 0.0000294 | Pa×s | 878.62 | 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=U348933&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 |