# Pimelic acid, nonyl tetradecyl ester

**Inchi:** InChI=1S/C30H58O4/c1-3-5-7-9-11-12-13-14-15-17-19-24-28-34-30(32)26-22-20-21-25-
**InchiKey:** ZWJGBCMGKHKYPH-UHFFFAOYSA-N
**Formula:** C30H58O4
**SMILES:** CCCCCCCCCCCCCCCOC(=O)CCCCCC(=O)OCCCCCCCCC
**Mol. weight [g/mol]:** 482.78

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -266.12 | kJ/mol | Joback Method |
| hf | -1152.13 | kJ/mol | Joback Method |
| hfus | 79.03 | kJ/mol | Joback Method |
| hvap | 100.69 | kJ/mol | Joback Method |
| log10ws | -10.11 | | Crippen Method |
| logp | 9.475 | | Crippen Method |
| mcvol | 448.440 | ml/mol | McGowan Method |
| pc | 623.13 | kPa | Joback Method |
| rinpol | 2677.00 | | NIST Webbook |
| rinpol | 2677.00 | | NIST Webbook |
| tb | 1038.38 | K | Joback Method |
| tc | 1305.67 | K | Joback Method |
| tf | 572.18 | K | Joback Method |
| vc | 1.764 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 1605.20 | J/mol×K | 1038.38 | Joback Method |
| cpg | 1629.54 | J/mol×K | 1082.93 | Joback Method |
| cpg | 1651.34 | J/mol×K | 1127.48 | Joback Method |
| cpg | 1670.72 | J/mol×K | 1172.02 | Joback Method |
| cpg | 1687.79 | J/mol×K | 1216.57 | Joback Method |
| cpg | 1702.67 | J/mol×K | 1261.12 | Joback Method |
| cpg | 1715.46 | J/mol×K | 1305.67 | Joback Method |
| dvisc | 0.0002389 | Pa×s | 572.18 | Joback Method |

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|---|---|---|---|---|
| dvisc | 0.0001064 | Pa×s | 649.88 | Joback Method |
| dvisc | 0.0000563 | Pa×s | 727.58 | Joback Method |
| dvisc | 0.0000337 | Pa×s | 805.28 | Joback Method |
| dvisc | 0.0000221 | Pa×s | 882.98 | Joback Method |
| dvisc | 0.0000155 | Pa×s | 960.68 | Joback Method |
| dvisc | 0.0000114 | Pa×s | 1038.38 | 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=U406464&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 |