# Glutaric acid, monoamide, N-tetradecyl-, octyl ester

**Inchi:** InChI=1S/C27H53NO3/c1-3-5-7-9-11-12-13-14-15-16-17-19-24-28-26(29)22-21-23-27(30

**InchiKey:** KMFJIKLGMKZLSU-UHFFFAOYSA-N

**Formula:** C27H53NO3

**SMILES:** CCCCCCCCCCCCCCNC(=O)CCCC(=O)OCCCCCCCC

**Mol. weight [g/mol]:** 439.71

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -96.99 | kJ/mol | Joback Method |
| hf | -904.52 | kJ/mol | Joback Method |
| hfus | 75.17 | kJ/mol | Joback Method |
| hvap | 98.03 | kJ/mol | Joback Method |
| log10ws | -8.95 | | Crippen Method |
| logp | 7.878 | | Crippen Method |
| mcvol | 410.280 | ml/mol | McGowan Method |
| pc | 735.22 | kPa | Joback Method |
| rinpol | 3318.00 | | NIST Webbook |
| tb | 997.49 | K | Joback Method |
| tc | 1237.18 | K | Joback Method |
| tf | 568.80 | K | Joback Method |
| vc | 1.613 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 1444.26 | J/mol×K | 997.49 | Joback Method |
| cpg | 1466.54 | J/mol×K | 1037.44 | Joback Method |
| cpg | 1487.00 | J/mol×K | 1077.39 | Joback Method |
| cpg | 1505.72 | J/mol×K | 1117.34 | Joback Method |
| cpg | 1522.79 | J/mol×K | 1157.29 | Joback Method |
| cpg | 1538.31 | J/mol×K | 1197.23 | Joback Method |
| cpg | 1552.38 | J/mol×K | 1237.18 | 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=U360801&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |

# Legend

| | |
|---|---|
| **cpg:** | Ideal gas heat capacity |
| **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 |