# Glutaric acid, 2-methylpentyl tetradecyl ester

**Inchi:** InChI=1S/C25H48O4/c1-4-6-7-8-9-10-11-12-13-14-15-16-21-28-24(26)19-17-20-25(27)2
**InchiKey:** UWEGBGPOQZMAQD-UHFFFAOYSA-N
**Formula:** C25H48O4
**SMILES:** CCCCCCCCCCCCCCCOC(=O)CCCC(=O)OCC(C)CCC
**Mol. weight [g/mol]:** 412.65

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -310.66 | kJ/mol | Joback Method |
| hf | -1054.21 | kJ/mol | Joback Method |
| hfus | 62.56 | kJ/mol | Joback Method |
| hvap | 89.17 | kJ/mol | Joback Method |
| log10ws | -7.77 | | Crippen Method |
| logp | 7.380 | | Crippen Method |
| mcvol | 377.990 | ml/mol | McGowan Method |
| pc | 807.99 | kPa | Joback Method |
| rinpol | 2861.00 | | NIST Webbook |
| tb | 923.54 | K | Joback Method |
| tc | 1133.47 | K | Joback Method |
| tf | 500.83 | K | Joback Method |
| vc | 1.478 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 1281.56 | J/mol×K | 923.54 | Joback Method |
| cpg | 1369.84 | J/mol×K | 1098.48 | Joback Method |
| cpg | 1355.09 | J/mol×K | 1063.49 | Joback Method |
| cpg | 1338.92 | J/mol×K | 1028.50 | Joback Method |
| cpg | 1321.30 | J/mol×K | 993.52 | Joback Method |
| cpg | 1302.20 | J/mol×K | 958.53 | Joback Method |
| cpg | 1383.23 | J/mol×K | 1133.47 | Joback Method |
| dvisc | 0.0000230 | Pa×s | 923.54 | Joback Method |
| dvisc | 0.0000313 | Pa×s | 853.09 | Joback Method |

| | | | | |
|---|---|---|---|---|
| dvisc | 0.0000450 | Pa×s | 782.64 | Joback Method |
| dvisc | 0.0000695 | Pa×s | 712.18 | Joback Method |
| dvisc | 0.0001181 | Pa×s | 641.73 | Joback Method |
| dvisc | 0.0002287 | Pa×s | 571.28 | Joback Method |
| dvisc | 0.0005334 | Pa×s | 500.83 | Joback Method |

# Sources

| | |
|---|---|
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=U358423&Units=SI |
| **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 |

# 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 |

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