# Glutaric acid, 8-chlorooctyl 4-biphenyl ester

**Inchi:** InChI=1S/C25H31ClO4/c26-19-8-3-1-2-4-9-20-29-24(27)13-10-14-25(28)30-23-17-15-22
**InchiKey:** TZGPSJWHAVGYCI-UHFFFAOYSA-N
**Formula:** C25H31ClO4
**SMILES:** O=C(CCCC(=O)Oc1ccc(-c2ccccc2)cc1)OCCCCCCCCCCl
**Mol. weight [g/mol]:** 430.96

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -104.96 | kJ/mol | Joback Method |
| hf | -603.08 | kJ/mol | Joback Method |
| hfus | 57.97 | kJ/mol | Joback Method |
| hvap | 99.15 | kJ/mol | Joback Method |
| log10ws | -8.01 | | Crippen Method |
| logp | 6.552 | | Crippen Method |
| mcvol | 342.710 | ml/mol | McGowan Method |
| pc | 1176.05 | kPa | Joback Method |
| rinpol | 3496.00 | | NIST Webbook |
| rinpol | 3496.00 | | NIST Webbook |
| tb | 1019.75 | K | Joback Method |
| tc | 1250.65 | K | Joback Method |
| tf | 611.11 | K | Joback Method |
| vc | 1.317 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 1099.67 | J/mol×K | 1019.75 | Joback Method |
| cpg | 1112.87 | J/mol×K | 1058.23 | Joback Method |
| cpg | 1124.65 | J/mol×K | 1096.72 | Joback Method |
| cpg | 1135.09 | J/mol×K | 1135.20 | Joback Method |
| cpg | 1144.25 | J/mol×K | 1173.68 | Joback Method |
| cpg | 1152.19 | J/mol×K | 1212.16 | Joback Method |
| cpg | 1158.98 | J/mol×K | 1250.65 | Joback Method |
| dvisc | 0.0002431 | Pa×s | 611.11 | Joback Method |

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|---|---|---|---|---|
| dvisc | 0.0001350 | Pa×s | 679.22 | Joback Method |
| dvisc | 0.0000834 | Pa×s | 747.32 | Joback Method |
| dvisc | 0.0000558 | Pa×s | 815.43 | Joback Method |
| dvisc | 0.0000398 | Pa×s | 883.54 | Joback Method |
| dvisc | 0.0000297 | Pa×s | 951.64 | Joback Method |
| dvisc | 0.0000231 | Pa×s | 1019.75 | Joback Method |

# Sources

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|---|---|
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=U390131&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

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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 |