# Glutaric acid, cyclohexylmethyl diphenylmethyl ester

**Inchi:** InChI=1S/C25H30O4/c26-23(28-19-20-11-4-1-5-12-20)17-10-18-24(27)29-25(21-13-6-2-
**InchiKey:** ITINOSZVSWAWSO-UHFFFAOYSA-N
**Formula:** C25H30O4
**SMILES:** O=C(CCCC(=O)OC(c1ccccc1)c1ccccc1)OCC1CCCCC1
**Mol. weight [g/mol]:** 394.50

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -61.39 | kJ/mol | Joback Method |
| hf | -526.83 | kJ/mol | Joback Method |
| hfus | 42.47 | kJ/mol | Joback Method |
| hvap | 94.15 | kJ/mol | Joback Method |
| log10ws | -6.43 | | Crippen Method |
| logp | 5.613 | | Crippen Method |
| mcvol | 319.610 | ml/mol | McGowan Method |
| pc | 1422.92 | kPa | Joback Method |
| rinpol | 3046.00 | | NIST Webbook |
| rinpol | 3046.00 | | NIST Webbook |
| tb | 996.45 | K | Joback Method |
| tc | 1237.64 | K | Joback Method |
| tf | 561.05 | K | Joback Method |
| vc | 1.194 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 1071.36 | J/mol×K | 996.45 | Joback Method |
| cpg | 1085.73 | J/mol×K | 1036.65 | Joback Method |
| cpg | 1098.34 | J/mol×K | 1076.85 | Joback Method |
| cpg | 1109.29 | J/mol×K | 1117.05 | Joback Method |
| cpg | 1118.65 | J/mol×K | 1157.24 | Joback Method |
| cpg | 1126.50 | J/mol×K | 1197.44 | Joback Method |
| cpg | 1132.95 | J/mol×K | 1237.64 | Joback Method |
| dvisc | 0.0004220 | Pa×s | 561.05 | Joback Method |

| | | | | |
|---|---|---|---|---|
| dvisc | 0.0002012 | Pa×s | 633.62 | Joback Method |
| dvisc | 0.0001116 | Pa×s | 706.18 | Joback Method |
| dvisc | 0.0000692 | Pa×s | 778.75 | Joback Method |
| dvisc | 0.0000465 | Pa×s | 851.32 | Joback Method |
| dvisc | 0.0000333 | Pa×s | 923.88 | Joback Method |
| dvisc | 0.0000250 | Pa×s | 996.45 | Joback Method |

# Sources

| | |
|---|---|
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=U393347&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 |

# 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 |