# Dimethylmalonic acid, decyl 4-(4-methoxyphenyl)cyclohexyl ester

**Inchi:** InChI=1S/C28H44O5/c1-5-6-7-8-9-10-11-12-21-32-26(29)28(2,3)27(30)33-25-19-15-23(1

**InchiKey:** FARJRDIZHIVRNG-UHFFFAOYSA-N

**Formula:** C28H44O5

**SMILES:** CCCCCCCCCCOC(=O)C(C)(C)C(=O)OC1CCC(c2ccc(OC)cc2)CC1

**Mol. weight [g/mol]:** 460.65

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -265.60 | kJ/mol | Joback Method |
| hf | -992.78 | kJ/mol | Joback Method |
| hfus | 54.18 | kJ/mol | Joback Method |
| hvap | 100.41 | kJ/mol | Joback Method |
| log10ws | -7.80 | | Crippen Method |
| logp | 6.975 | | Crippen Method |
| mcvol | 391.510 | ml/mol | McGowan Method |
| pc | 905.06 | kPa | Joback Method |
| rinpol | 3398.00 | | NIST Webbook |
| rinpol | 3398.00 | | NIST Webbook |
| tb | 1058.35 | K | Joback Method |
| tc | 1295.73 | K | Joback Method |
| tf | 616.37 | K | Joback Method |
| vc | 1.482 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 1395.87 | J/mol×K | 1058.35 | Joback Method |
| cpg | 1411.42 | J/mol×K | 1097.91 | Joback Method |
| cpg | 1424.92 | J/mol×K | 1137.48 | Joback Method |
| cpg | 1436.45 | J/mol×K | 1177.04 | Joback Method |
| cpg | 1446.08 | J/mol×K | 1216.60 | Joback Method |
| cpg | 1453.88 | J/mol×K | 1256.17 | Joback Method |
| cpg | 1459.92 | J/mol×K | 1295.73 | Joback Method |
| dvisc | 0.0001794 | Pa×s | 616.37 | Joback Method |

| | | | | |
|---|---|---|---|---|
| dvisc | 0.0000912 | Pa×s | 690.03 | Joback Method |
| dvisc | 0.0000528 | Pa×s | 763.70 | Joback Method |
| dvisc | 0.0000337 | Pa×s | 837.36 | Joback Method |
| dvisc | 0.0000231 | Pa×s | 911.02 | Joback Method |
| dvisc | 0.0000168 | Pa×s | 984.69 | Joback Method |
| dvisc | 0.0000127 | Pa×s | 1058.35 | Joback Method |

# Sources

| | |
|---|---|
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=U363922&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 |