# Phthalic acid, 2,5-dichlorobenzyl decyl ester

**Inchi:** InChI=1S/C25H30Cl2O4/c1-2-3-4-5-6-7-8-11-16-30-24(28)21-12-9-10-13-22(21)25(29)31
**InchiKey:** VJHLIFIENCKONI-UHFFFAOYSA-N
**Formula:** C25H30Cl2O4
**SMILES:** CCCCCCCCCCOC(=O)c1ccccc1C(=O)OCc1cc(Cl)ccc1Cl
**Mol. weight [g/mol]:** 465.41

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -136.15 | kJ/mol | Joback Method |
| hf | -641.76 | kJ/mol | Joback Method |
| hfus | 61.39 | kJ/mol | Joback Method |
| hvap | 104.86 | kJ/mol | Joback Method |
| log10ws | -9.20 | | Crippen Method |
| logp | 7.648 | | Crippen Method |
| mcvol | 354.950 | ml/mol | McGowan Method |
| pc | 1123.81 | kPa | Joback Method |
| rinpol | 3220.00 | | NIST Webbook |
| rinpol | 3220.00 | | NIST Webbook |
| tb | 1067.14 | K | Joback Method |
| tc | 1307.11 | K | Joback Method |
| tf | 666.07 | K | Joback Method |
| vc | 1.365 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 1117.37 | J/mol×K | 1067.14 | Joback Method |
| cpg | 1128.87 | J/mol×K | 1107.14 | Joback Method |
| cpg | 1138.87 | J/mol×K | 1147.13 | Joback Method |
| cpg | 1147.42 | J/mol×K | 1187.13 | Joback Method |
| cpg | 1154.58 | J/mol×K | 1227.12 | Joback Method |
| cpg | 1160.41 | J/mol×K | 1267.12 | Joback Method |
| cpg | 1164.96 | J/mol×K | 1307.11 | Joback Method |
| dvisc | 0.0001613 | Pa×s | 666.07 | Joback Method |

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|---|---|---|---|---|
| dvisc | 0.0000978 | Pa×s | 732.92 | Joback Method |
| dvisc | 0.0000644 | Pa×s | 799.76 | Joback Method |
| dvisc | 0.0000453 | Pa×s | 866.61 | Joback Method |
| dvisc | 0.0000335 | Pa×s | 933.45 | Joback Method |
| dvisc | 0.0000258 | Pa×s | 1000.30 | Joback Method |
| dvisc | 0.0000205 | Pa×s | 1067.14 | Joback Method |

# Sources

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|---|---|
| **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=U382919&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |

# 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 |