

# cis-Cyclohex-4-en-1,2-dicarboxylic acid, 3-phenylpropyl undecyl ester

|                             |   |
|-----------------------------|---|
| <b>Inchi:</b>               | InChI=1S/C28H42O4/c1-2-3-4-5-6-7-8-9-15-22-31-27(29)25-20-13-14-21-26(25)28(30)32 |
| <b>InchiKey:</b>            | JPMLMNGXIXYMDR-UHFFFAOYSA-N   |
| <b>Formula:</b>             | C28H42O4  |
| <b>SMILES:</b>              | CCCCCCCCCOC(=O)C1CC=CCC1C(=O)OCCc1ccccc1  |
| <b>Mol. weight [g/mol]:</b> | 442.63  |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | -123.85 | kJ/mol               | Joback Method  |
| hf            | -782.56 | kJ/mol               | Joback Method  |
| hfus          | 62.02   | kJ/mol               | Joback Method  |
| hvap          | 98.92   | kJ/mol               | Joback Method  |
| log10ws       | -7.64   |                      | Crippen Method |
| logp          | 6.819   |                      | Crippen Method |
| mvol          | 381.340 | ml/mol               | McGowan Method |
| pc            | 932.35  | kPa                  | Joback Method  |
| rinpol        | 3228.00 |                      | NIST Webbook   |
| rinpol        | 3228.00 |                      | NIST Webbook   |
| tb            | 1033.34 | K                    | Joback Method  |
| tc            | 1265.11 | K                    | Joback Method  |
| tf            | 579.96  | K                    | Joback Method  |
| vc            | 1.462   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 1336.43   | J/molxK | 1033.34         | Joback Method |
| cpg           | 1399.98   | J/molxK | 1226.48         | Joback Method |
| cpg           | 1390.71   | J/molxK | 1187.85         | Joback Method |
| cpg           | 1379.79   | J/molxK | 1149.23         | Joback Method |
| cpg           | 1367.15   | J/molxK | 1110.60         | Joback Method |
| cpg           | 1352.72   | J/molxK | 1071.97         | Joback Method |
| cpg           | 1407.68   | J/molxK | 1265.11         | Joback Method |
| dvisc         | 0.0000250 | Paxs    | 1033.34         | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0000326 | Paxs | 957.78 | Joback Method |
| dvisc | 0.0000446 | Paxs | 882.21 | Joback Method |
| dvisc | 0.0000646 | Paxs | 806.65 | Joback Method |
| dvisc | 0.0001011 | Paxs | 731.09 | Joback Method |
| dvisc | 0.0001756 | Paxs | 655.52 | Joback Method |
| dvisc | 0.0003519 | Paxs | 579.96 | Joback Method |

## Sources

|                        |   |
|------------------------|---|
| <b>Crippen Method:</b> | <a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>                                 |
| <b>Crippen Method:</b> | <a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>                         |
| <b>Joback Method:</b>  | <a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>                                     |
| <b>McGowan Method:</b> | <a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>                     |
| <b>NIST Webbook:</b>   | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=U382782&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U382782&amp;Units=SI</a> |

## Legend

|                 |   |
|-----------------|---|
| <b>cpg:</b>     | Ideal gas heat capacity                         |
| <b>dvisc:</b>   | Dynamic viscosity                               |
| <b>gf:</b>      | Standard Gibbs free energy of formation         |
| <b>hf:</b>      | Enthalpy of formation at standard conditions    |
| <b>hfus:</b>    | Enthalpy of fusion at standard conditions       |
| <b>hvap:</b>    | Enthalpy of vaporization at standard conditions |
| <b>log10ws:</b> | Log10 of Water solubility in mol/l              |
| <b>logp:</b>    | Octanol/Water partition coefficient             |
| <b>mcvol:</b>   | McGowan's characteristic volume                 |
| <b>pc:</b>      | Critical Pressure                               |
| <b>rinpol:</b>  | Non-polar retention indices                     |
| <b>tb:</b>      | Normal Boiling Point Temperature                |
| <b>tc:</b>      | Critical Temperature                            |
| <b>tf:</b>      | Normal melting (fusion) point                   |
| <b>vc:</b>      | Critical Volume                                 |

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