

# Adipic acid, butyl 3-phenoxybenzyl ester

**Inchi:** InChI=1S/C23H28O5/c1-2-3-16-26-22(24)14-7-8-15-23(25)27-18-19-10-9-13-21(17-19)2  
**InchiKey:** FNYVNVFBTDWZPE-UHFFFAOYSA-N  
**Formula:** C23H28O5  
**SMILES:** CCCCOC(=O)CCCCC(=O)OCc1cccc(Oc2ccccc2)c1  
**Mol. weight [g/mol]:** 384.47

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | -214.87 | kJ/mol  | Joback Method  |
| hf            | -678.28 | kJ/mol  | Joback Method  |
| hfus          | 49.78   | kJ/mol  | Joback Method  |
| hvap          | 92.73   | kJ/mol  | Joback Method  |
| log10ws       | -5.90   |         | Crippen Method |
| logp          | 5.426   |         | Crippen Method |
| mcvol         | 308.160 | ml/mol  | McGowan Method |
| pc            | 1367.69 | kPa     | Joback Method  |
| rinpol        | 2873.00 |         | NIST Webbook   |
| rinpol        | 2873.00 |         | NIST Webbook   |
| tb            | 958.98  | K       | Joback Method  |
| tc            | 1182.01 | K       | Joback Method  |
| tf            | 580.88  | K       | Joback Method  |
| vc            | 1.173   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 984.53    | J/mol×K | 958.98          | Joback Method |
| cpg           | 998.05    | J/mol×K | 996.15          | Joback Method |
| cpg           | 1010.09   | J/mol×K | 1033.32         | Joback Method |
| cpg           | 1020.69   | J/mol×K | 1070.49         | Joback Method |
| cpg           | 1029.87   | J/mol×K | 1107.66         | Joback Method |
| cpg           | 1037.67   | J/mol×K | 1144.84         | Joback Method |
| cpg           | 1044.12   | J/mol×K | 1182.01         | Joback Method |
| dvisc         | 0.0002656 | Pa×s    | 580.88          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0001511 | Pa×s | 643.90 | Joback Method |
| dvisc | 0.0000950 | Pa×s | 706.91 | Joback Method |
| dvisc | 0.0000644 | Pa×s | 769.93 | Joback Method |
| dvisc | 0.0000464 | Pa×s | 832.95 | Joback Method |
| dvisc | 0.0000349 | Pa×s | 895.96 | Joback Method |
| dvisc | 0.0000273 | Pa×s | 958.98 | Joback Method |

## Sources

|                        |                                                                                                                                           |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| <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=U353813&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U353813&amp;Units=SI</a> |
| <b>Crippen Method:</b> | <a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</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>mccol:</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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