

# 1,2-Cyclohexanedicarboxylic acid, butyl 2,3-dichlorophenyl ester

|                      |  |
|----------------------|--|
| Inchi:               | InChI=1S/C18H22Cl2O4/c1-2-3-11-23-17(21)12-7-4-5-8-13(12)18(22)24-15-10-6-9-14(19) |
| InchiKey:            | UWFRKKNUPXASQX-UHFFFAOYSA-N  |
| Formula:             | C18H22Cl2O4  |
| SMILES:              | CCCCOC(=O)C1CCCCC1C(=O)Oc1cccc(Cl)c1Cl   |
| Mol. weight [g/mol]: | 373.27   |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | -281.13 | kJ/mol               | Joback Method  |
| hf            | -688.36 | kJ/mol               | Joback Method  |
| hfus          | 42.51   | kJ/mol               | Joback Method  |
| hvap          | 86.46   | kJ/mol               | Joback Method  |
| log10ws       | -5.62   |                      | Crippen Method |
| logp          | 5.048   |                      | Crippen Method |
| mvol          | 269.220 | ml/mol               | McGowan Method |
| pc            | 1659.19 | kPa                  | Joback Method  |
| rinpol        | 2600.00 |                      | NIST Webbook   |
| rinpol        | 2600.00 |                      | NIST Webbook   |
| tb            | 890.20  | K                    | Joback Method  |
| tc            | 1120.39 | K                    | Joback Method  |
| tf            | 551.38  | K                    | Joback Method  |
| vc            | 1.014   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 810.29    | J/molxK | 890.20          | Joback Method |
| cpg           | 865.83    | J/molxK | 1082.02         | Joback Method |
| cpg           | 857.71    | J/molxK | 1043.66         | Joback Method |
| cpg           | 848.11    | J/molxK | 1005.29         | Joback Method |
| cpg           | 837.02    | J/molxK | 966.93          | Joback Method |
| cpg           | 824.42    | J/molxK | 928.56          | Joback Method |
| cpg           | 872.49    | J/molxK | 1120.39         | Joback Method |
| dvisc         | 0.0000743 | Paxs    | 890.20          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0000926 | Paxs | 833.73 | Joback Method |
| dvisc | 0.0001192 | Paxs | 777.26 | Joback Method |
| dvisc | 0.0001595 | Paxs | 720.79 | Joback Method |
| dvisc | 0.0002243 | Paxs | 664.32 | Joback Method |
| dvisc | 0.0003362 | Paxs | 607.85 | Joback Method |
| dvisc | 0.0005472 | Paxs | 551.38 | 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=U339843&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U339843&amp;Units=SI</a> |
| <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>                                 |

## 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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