

# 1,2-Cyclohexanedicarboxylic acid, butyl 2-chloroethyl ester

|                      |   |
|----------------------|---|
| Inchi:               | InChI=1S/C14H23ClO4/c1-2-3-9-18-13(16)11-6-4-5-7-12(11)14(17)19-10-8-15/h11-12H,1 |
| InchiKey:            | SGIWRAGFENWKHK-UHFFFAOYSA-N   |
| Formula:             | C14H23ClO4  |
| SMILES:              | CCCCOC(=O)C1CCCCC1C(=O)OCCCl  |
| Mol. weight [g/mol]: | 290.78  |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | -396.03 | kJ/mol               | Joback Method  |
| hf            | -803.65 | kJ/mol               | Joback Method  |
| hfus          | 34.69   | kJ/mol               | Joback Method  |
| hvap          | 69.58   | kJ/mol               | Joback Method  |
| log10ws       | -2.97   |                      | Crippen Method |
| logp          | 2.918   |                      | Crippen Method |
| mvol          | 224.380 | ml/mol               | McGowan Method |
| pc            | 1834.11 | kPa                  | Joback Method  |
| rinpol        | 1957.00 |                      | NIST Webbook   |
| rinpol        | 1957.00 |                      | NIST Webbook   |
| tb            | 724.61  | K                    | Joback Method  |
| tc            | 927.88  | K                    | Joback Method  |
| tf            | 424.92  | K                    | Joback Method  |
| vc            | 0.849   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 649.19    | J/molxK | 724.61          | Joback Method |
| cpg           | 723.85    | J/molxK | 894.00          | Joback Method |
| cpg           | 711.12    | J/molxK | 860.12          | Joback Method |
| cpg           | 697.29    | J/molxK | 826.24          | Joback Method |
| cpg           | 682.36    | J/molxK | 792.37          | Joback Method |
| cpg           | 666.33    | J/molxK | 758.49          | Joback Method |
| cpg           | 735.49    | J/molxK | 927.88          | Joback Method |
| dvisc         | 0.0001379 | Paxs    | 724.61          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0001764 | Paxs | 674.66 | Joback Method |
| dvisc | 0.0002348 | Paxs | 624.71 | Joback Method |
| dvisc | 0.0003285 | Paxs | 574.76 | Joback Method |
| dvisc | 0.0004899 | Paxs | 524.82 | Joback Method |
| dvisc | 0.0007946 | Paxs | 474.87 | Joback Method |
| dvisc | 0.0014440 | Paxs | 424.92 | 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=U340042&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U340042&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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