

# Succinic acid, 4-chloro-3-methylphenyl 3-methylbut-2-yl ester

|                             |   |
|-----------------------------|---|
| <b>Inchi:</b>               | InChI=1S/C16H21ClO4/c1-10(2)12(4)20-15(18)7-8-16(19)21-13-5-6-14(17)11(3)9-13/h5- |
| <b>InchiKey:</b>            | GBKSPIPBGUTKHH-UHFFFAOYSA-N   |
| <b>Formula:</b>             | C16H21ClO4  |
| <b>SMILES:</b>              | <chem>Cc1cc(OC(=O)CCC(=O)OC(C)C(C)C)ccc1Cl</chem>                                 |
| <b>Mol. weight [g/mol]:</b> | 312.79  |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | -307.66 | kJ/mol               | Joback Method  |
| hf            | -675.88 | kJ/mol               | Joback Method  |
| hfus          | 33.18   | kJ/mol               | Joback Method  |
| hvap          | 76.73   | kJ/mol               | Joback Method  |
| log10ws       | -4.61   |                      | Crippen Method |
| logp          | 3.922   |                      | Crippen Method |
| mcvol         | 239.660 | ml/mol               | McGowan Method |
| pc            | 1762.45 | kPa                  | Joback Method  |
| rinpol        | 2167.00 |                      | NIST Webbook   |
| rinpol        | 2167.00 |                      | NIST Webbook   |
| tb            | 791.25  | K                    | Joback Method  |
| tc            | 1003.34 | K                    | Joback Method  |
| tf            | 465.78  | K                    | Joback Method  |
| vc            | 0.908   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 675.30    | J/molxK | 791.25          | Joback Method |
| cpg           | 736.28    | J/molxK | 967.99          | Joback Method |
| cpg           | 726.17    | J/molxK | 932.64          | Joback Method |
| cpg           | 715.02    | J/molxK | 897.30          | Joback Method |
| cpg           | 702.84    | J/molxK | 861.95          | Joback Method |
| cpg           | 689.60    | J/molxK | 826.60          | Joback Method |
| cpg           | 745.38    | J/molxK | 1003.34         | Joback Method |
| dvisc         | 0.0000705 | Paxs    | 791.25          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0000908 | Paxs | 737.00 | Joback Method |
| dvisc | 0.0001219 | Paxs | 682.76 | Joback Method |
| dvisc | 0.0001722 | Paxs | 628.51 | Joback Method |
| dvisc | 0.0002597 | Paxs | 574.27 | Joback Method |
| dvisc | 0.0004265 | Paxs | 520.02 | Joback Method |
| dvisc | 0.0007862 | Paxs | 465.78 | Joback Method |

## Sources

|                        |   |
|------------------------|---|
| <b>NIST Webbook:</b>   | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=U390588&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U390588&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>                                 |
| <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>                     |

## Legend

|                            |   |
|----------------------------|---|
| <b>cp<sub>g</sub>:</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>log<sub>10</sub>ws:</b> | Log <sub>10</sub> of Water solubility in mol/l  |
| <b>log<sub>p</sub>:</b>    | Octanol/Water partition coefficient             |
| <b>m<sub>c</sub>vol:</b>   | McGowan's characteristic volume                 |
| <b>pc:</b>                 | Critical Pressure                               |
| <b>rin<sub>pol</sub>:</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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