

# Succinic acid, 3-chlorophenyl but-2-en-1-yl ester

|                      |   |
|----------------------|---|
| Inchi:               | InChI=1S/C14H15ClO4/c1-2-3-9-18-13(16)7-8-14(17)19-12-6-4-5-11(15)10-12/h2-6,10H, |
| InchiKey:            | UFCQJKUWFCJQOX-NSCUHMNNSA-N   |
| Formula:             | C14H15ClO4  |
| SMILES:              | CC=CCOC(=O)CCC(=O)Oc1cccc(Cl)c1   |
| Mol. weight [g/mol]: | 282.72  |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | -229.77 | kJ/mol               | Joback Method  |
| hf            | -495.35 | kJ/mol               | Joback Method  |
| hfus          | 35.64   | kJ/mol               | Joback Method  |
| hvap          | 72.35   | kJ/mol               | Joback Method  |
| log10ws       | -3.70   |                      | Crippen Method |
| logp          | 3.145   |                      | Crippen Method |
| mvol          | 207.180 | ml/mol               | McGowan Method |
| pc            | 2185.64 | kPa                  | Joback Method  |
| rinpol        | 2059.00 |                      | NIST Webbook   |
| rinpol        | 2059.00 |                      | NIST Webbook   |
| tb            | 745.55  | K                    | Joback Method  |
| tc            | 961.97  | K                    | Joback Method  |
| tf            | 455.64  | K                    | Joback Method  |
| vc            | 0.788   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 541.42    | J/molxK | 745.55          | Joback Method |
| cpg           | 596.27    | J/molxK | 925.90          | Joback Method |
| cpg           | 587.01    | J/molxK | 889.83          | Joback Method |
| cpg           | 576.92    | J/molxK | 853.76          | Joback Method |
| cpg           | 565.98    | J/molxK | 817.69          | Joback Method |
| cpg           | 554.15    | J/molxK | 781.62          | Joback Method |
| cpg           | 604.71    | J/molxK | 961.97          | Joback Method |
| dvisc         | 0.0000932 | Paxs    | 745.55          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0001175 | Paxs | 697.23 | Joback Method |
| dvisc | 0.0001534 | Paxs | 648.91 | Joback Method |
| dvisc | 0.0002090 | Paxs | 600.60 | Joback Method |
| dvisc | 0.0003005 | Paxs | 552.28 | Joback Method |
| dvisc | 0.0004635 | Paxs | 503.96 | Joback Method |
| dvisc | 0.0007834 | Paxs | 455.64 | Joback Method |

## Sources

|                        |   |
|------------------------|---|
| <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=U391226&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U391226&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>                                 |
| <b>Crippen Method:</b> | <a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</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>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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