

# Succinic acid, 3-chlorophenyl 2-methoxyethyl ester

|                      |   |
|----------------------|---|
| Inchi:               | InChI=1S/C13H15ClO5/c1-17-7-8-18-12(15)5-6-13(16)19-11-4-2-3-10(14)9-11/h2-4,9H,5 |
| InchiKey:            | IQTYLDYFEHNXFV-UHFFFAOYSA-N   |
| Formula:             | C13H15ClO5  |
| SMILES:              | COCCOC(=O)CCC(=O)Oc1cccc(Cl)c1  |
| Mol. weight [g/mol]: | 286.71  |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | -423.41 | kJ/mol               | Joback Method  |
| hf            | -724.15 | kJ/mol               | Joback Method  |
| hfus          | 34.04   | kJ/mol               | Joback Method  |
| hvap          | 72.58   | kJ/mol               | Joback Method  |
| log10ws       | -2.51   |                      | Crippen Method |
| logp          | 2.215   |                      | Crippen Method |
| mvol          | 203.260 | ml/mol               | McGowan Method |
| pc            | 2241.88 | kPa                  | Joback Method  |
| rinpol        | 2058.00 |                      | NIST Webbook   |
| rinpol        | 2058.00 |                      | NIST Webbook   |
| tb            | 740.93  | K                    | Joback Method  |
| tc            | 951.16  | K                    | Joback Method  |
| tf            | 471.68  | K                    | Joback Method  |
| vc            | 0.770   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 538.67    | J/molxK | 740.93          | Joback Method |
| cpg           | 551.27    | J/molxK | 775.97          | Joback Method |
| cpg           | 562.97    | J/molxK | 811.01          | Joback Method |
| cpg           | 573.76    | J/molxK | 846.04          | Joback Method |
| cpg           | 583.64    | J/molxK | 881.08          | Joback Method |
| cpg           | 592.60    | J/molxK | 916.12          | Joback Method |
| cpg           | 600.63    | J/molxK | 951.16          | Joback Method |
| dvisc         | 0.0006652 | Paxs    | 471.68          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0004162 | Paxs | 516.56 | Joback Method |
| dvisc | 0.0002806 | Paxs | 561.43 | Joback Method |
| dvisc | 0.0002006 | Paxs | 606.31 | Joback Method |
| dvisc | 0.0001502 | Paxs | 651.18 | Joback Method |
| dvisc | 0.0001167 | Paxs | 696.06 | Joback Method |
| dvisc | 0.0000935 | Paxs | 740.93 | Joback Method |

## Sources

|                        |   |
|------------------------|---|
| <b>NIST Webbook:</b>   | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=U390744&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U390744&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>g<sub>f</sub>:</b>      | Standard Gibbs free energy of formation         |
| <b>h<sub>f</sub>:</b>      | Enthalpy of formation at standard conditions    |
| <b>h<sub>fus</sub>:</b>    | Enthalpy of fusion at standard conditions       |
| <b>h<sub>vap</sub>:</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>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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