

# Succinic acid, 3-methylbut-2-yl oct-1-en-3-yl ester

|                      |   |
|----------------------|---|
| Inchi:               | InChI=1S/C17H30O4/c1-6-8-9-10-15(7-2)21-17(19)12-11-16(18)20-14(5)13(3)4/h7,13-15 |
| InchiKey:            | MUCONRDDMKUQDA-UHFFFAOYSA-N   |
| Formula:             | C17H30O4  |
| SMILES:              | <chem>C=CC(CCCCC)OC(=O)CCC(=O)OC(C)C(C)C</chem>                                   |
| Mol. weight [g/mol]: | 298.42  |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | -295.06 | kJ/mol               | Joback Method  |
| hf            | -774.22 | kJ/mol               | Joback Method  |
| hfus          | 33.51   | kJ/mol               | Joback Method  |
| hvap          | 69.91   | kJ/mol               | Joback Method  |
| log10ws       | -4.50   |                      | Crippen Method |
| logp          | 4.032   |                      | Crippen Method |
| mcvol         | 260.970 | ml/mol               | McGowan Method |
| pc            | 1379.91 | kPa                  | Joback Method  |
| rinpol        | 1873.00 |                      | NIST Webbook   |
| rinpol        | 1873.00 |                      | NIST Webbook   |
| tb            | 736.30  | K                    | Joback Method  |
| tc            | 920.39  | K                    | Joback Method  |
| tf            | 378.91  | K                    | Joback Method  |
| vc            | 0.999   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 767.31    | J/molxK | 736.30          | Joback Method |
| cpg           | 784.35    | J/molxK | 766.98          | Joback Method |
| cpg           | 800.46    | J/molxK | 797.66          | Joback Method |
| cpg           | 815.66    | J/molxK | 828.35          | Joback Method |
| cpg           | 829.96    | J/molxK | 859.03          | Joback Method |
| cpg           | 843.38    | J/molxK | 889.71          | Joback Method |
| cpg           | 855.92    | J/molxK | 920.39          | Joback Method |
| dvisc         | 0.0021329 | Paxs    | 378.91          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0008113 | Paxs | 438.48 | Joback Method |
| dvisc | 0.0003889 | Paxs | 498.04 | Joback Method |
| dvisc | 0.0002181 | Paxs | 557.61 | Joback Method |
| dvisc | 0.0001368 | Paxs | 617.17 | Joback Method |
| dvisc | 0.0000931 | Paxs | 676.73 | Joback Method |
| dvisc | 0.0000675 | Paxs | 736.30 | Joback Method |

## Sources

|                        |   |
|------------------------|---|
| <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=U391317&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U391317&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>                                     |

## 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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