

# Succinic acid, 3-methoxybenzyl 2-methylhex-3-yl ester

|                      |   |
|----------------------|---|
| Inchi:               | InChI=1S/C19H28O5/c1-5-7-17(14(2)3)24-19(21)11-10-18(20)23-13-15-8-6-9-16(12-15)2 |
| InchiKey:            | IHAKBJGPLUOSEU-UHFFFAOYSA-N   |
| Formula:             | C19H28O5  |
| SMILES:              | CCCC(OC(=O)CCC(=O)OCc1cccc(OC)c1)C(C)C  |
| Mol. weight [g/mol]: | 336.42  |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | -365.84 | kJ/mol               | Joback Method  |
| hf            | -842.81 | kJ/mol               | Joback Method  |
| hfus          | 38.33   | kJ/mol               | Joback Method  |
| hvap          | 80.77   | kJ/mol               | Joback Method  |
| log10ws       | -4.67   |                      | Crippen Method |
| logp          | 3.886   |                      | Crippen Method |
| mcvol         | 275.560 | ml/mol               | McGowan Method |
| pc            | 1440.25 | kPa                  | Joback Method  |
| rinsol        | 2335.00 |                      | NIST Webbook   |
| tb            | 839.90  | K                    | Joback Method  |
| tc            | 1044.02 | K                    | Joback Method  |
| tf            | 479.38  | K                    | Joback Method  |
| vc            | 1.046   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 849.22    | J/molxK | 839.90          | Joback Method |
| cpg           | 864.93    | J/molxK | 873.92          | Joback Method |
| cpg           | 879.43    | J/molxK | 907.94          | Joback Method |
| cpg           | 892.71    | J/molxK | 941.96          | Joback Method |
| cpg           | 904.79    | J/molxK | 975.98          | Joback Method |
| cpg           | 915.68    | J/molxK | 1010.00         | Joback Method |
| cpg           | 925.38    | J/molxK | 1044.02         | Joback Method |
| dvisc         | 0.0005924 | Paxs    | 479.38          | Joback Method |
| dvisc         | 0.0002940 | Paxs    | 539.47          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0001679 | Paxs | 599.55 | Joback Method |
| dvisc | 0.0001062 | Paxs | 659.64 | Joback Method |
| dvisc | 0.0000725 | Paxs | 719.73 | Joback Method |
| dvisc | 0.0000525 | Paxs | 779.81 | Joback Method |
| dvisc | 0.0000398 | Paxs | 839.90 | 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=U381255&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U381255&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.cheméo.com/doc/models/crippen_log10ws">https://www.cheméo.com/doc/models/crippen_log10ws</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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