

# Sebacic acid, isobutyl 2-methoxybenzyl ester

|                             |  |
|-----------------------------|--|
| <b>Inchi:</b>               | InChI=1S/C22H34O5/c1-18(2)16-26-21(23)14-8-6-4-5-7-9-15-22(24)27-17-19-12-10-11- |
| <b>InchiKey:</b>            | VQPPLCUWSPBVPD-UHFFFAOYSA-N  |
| <b>Formula:</b>             | C22H34O5   |
| <b>SMILES:</b>              | COc1ccccc1COC(=O)CCCCCCCCC(=O)OCC(C)C  |
| <b>Mol. weight [g/mol]:</b> | 378.50   |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | -338.14 | kJ/mol               | Joback Method  |
| hf            | -899.45 | kJ/mol               | Joback Method  |
| hfus          | 49.63   | kJ/mol               | Joback Method  |
| hvap          | 87.84   | kJ/mol               | Joback Method  |
| log10ws       | -5.81   |                      | Crippen Method |
| logp          | 5.058   |                      | Crippen Method |
| mcvol         | 317.830 | ml/mol               | McGowan Method |
| pc            | 1164.04 | kPa                  | Joback Method  |
| rinpola       | 2748.00 |                      | NIST Webbook   |
| tb            | 908.98  | K                    | Joback Method  |
| tc            | 1115.86 | K                    | Joback Method  |
| tf            | 528.19  | K                    | Joback Method  |
| vc            | 1.220   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 1027.47   | J/molxK | 908.98          | Joback Method |
| cpg           | 1043.51   | J/molxK | 943.46          | Joback Method |
| cpg           | 1058.17   | J/molxK | 977.94          | Joback Method |
| cpg           | 1071.48   | J/molxK | 1012.42         | Joback Method |
| cpg           | 1083.45   | J/molxK | 1046.90         | Joback Method |
| cpg           | 1094.10   | J/molxK | 1081.38         | Joback Method |
| cpg           | 1103.44   | J/molxK | 1115.86         | Joback Method |
| dvisc         | 0.0003727 | Paxs    | 528.19          | Joback Method |
| dvisc         | 0.0001922 | Paxs    | 591.65          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0001127 | Paxs | 655.12 | Joback Method |
| dvisc | 0.0000726 | Paxs | 718.59 | Joback Method |
| dvisc | 0.0000503 | Paxs | 782.05 | Joback Method |
| dvisc | 0.0000367 | Paxs | 845.51 | Joback Method |
| dvisc | 0.0000281 | Paxs | 908.98 | 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=U380772&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U380772&amp;Units=SI</a> |
| <b>Crippen Method:</b> | <a href="http://pubs.acs.org/doi/abs/10.1021/ci990307I">http://pubs.acs.org/doi/abs/10.1021/ci990307I</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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