

# Fumaric acid, 2,6-dimethoxyphenyl naphth-2-ylmethyl ester

|                             |  |
|-----------------------------|--|
| <b>Inchi:</b>               | InChI=1S/C23H20O6/c1-26-19-8-5-9-20(27-2)23(19)29-22(25)13-12-21(24)28-15-16-10- |
| <b>InchiKey:</b>            | JEDOF CZMQYIACL-OUKQBFOZSA-N   |
| <b>Formula:</b>             | C23H20O6   |
| <b>SMILES:</b>              | COc1cccc(OC)c1OC(=O)C=CC(=O)OCc1ccc2ccccc2c1                                     |
| <b>Mol. weight [g/mol]:</b> | 392.40   |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | -152.26 | kJ/mol               | Joback Method  |
| hf            | -525.15 | kJ/mol               | Joback Method  |
| hfus          | 47.41   | kJ/mol               | Joback Method  |
| hvap          | 98.06   | kJ/mol               | Joback Method  |
| log10ws       | -5.91   |                      | Crippen Method |
| logp          | 4.062   |                      | Crippen Method |
| mvol          | 290.270 | ml/mol               | McGowan Method |
| pc            | 1660.55 | kPa                  | Joback Method  |
| rinpol        | 3209.00 |                      | NIST Webbook   |
| rinpol        | 3209.00 |                      | NIST Webbook   |
| tb            | 1014.50 | K                    | Joback Method  |
| tc            | 1256.99 | K                    | Joback Method  |
| tf            | 655.77  | K                    | Joback Method  |
| vc            | 1.093   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 894.60    | J/molxK | 1014.50         | Joback Method |
| cpg           | 934.99    | J/molxK | 1216.58         | Joback Method |
| cpg           | 929.43    | J/molxK | 1176.16         | Joback Method |
| cpg           | 922.66    | J/molxK | 1135.75         | Joback Method |
| cpg           | 914.63    | J/molxK | 1095.33         | Joback Method |
| cpg           | 905.30    | J/molxK | 1054.92         | Joback Method |
| cpg           | 939.40    | J/molxK | 1256.99         | Joback Method |
| dvisc         | 0.0000396 | Paxs    | 1014.50         | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0000478 | Paxs | 954.71 | Joback Method |
| dvisc | 0.0000591 | Paxs | 894.92 | Joback Method |
| dvisc | 0.0000754 | Paxs | 835.13 | Joback Method |
| dvisc | 0.0001000 | Paxs | 775.35 | Joback Method |
| dvisc | 0.0001388 | Paxs | 715.56 | Joback Method |
| dvisc | 0.0002047 | Paxs | 655.77 | Joback Method |

## Sources

|                        |   |
|------------------------|---|
| <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>                     |
| <b>NIST Webbook:</b>   | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=U405764&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U405764&amp;Units=SI</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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