

# Fumaric acid, 2,6-dimethoxyphenyl 2-chloro-6-fluorophenyl ester

|                             |                                                                                  |
|-----------------------------|----------------------------------------------------------------------------------|
| <b>Inchi:</b>               | InChI=1S/C18H14ClFO6/c1-23-13-7-4-8-14(24-2)18(13)26-16(22)10-9-15(21)25-17-11(1 |
| <b>InchiKey:</b>            | WTDGITNHEMVTJE-MDZDMXLPSA-N                                                      |
| <b>Formula:</b>             | C18H14ClFO6                                                                      |
| <b>SMILES:</b>              | COc1cccc(OC)c1OC(=O)C=CC(=O)Oc1c(F)cccc1Cl                                       |
| <b>Mol. weight [g/mol]:</b> | 380.75                                                                           |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | -517.38 | kJ/mol               | Joback Method  |
| hf            | -836.34 | kJ/mol               | Joback Method  |
| hfus          | 44.33   | kJ/mol               | Joback Method  |
| hvap          | 89.52   | kJ/mol               | Joback Method  |
| log10ws       | -4.86   |                      | Crippen Method |
| logp          | 3.563   |                      | Crippen Method |
| mcvol         | 253.290 | ml/mol               | McGowan Method |
| pc            | 1864.33 | kPa                  | Joback Method  |
| rinqol        | 2675.00 |                      | NIST Webbook   |
| tb            | 922.80  | K                    | Joback Method  |
| tc            | 1153.15 | K                    | Joback Method  |
| tf            | 609.75  | K                    | Joback Method  |
| vc            | 0.959   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 716.85 | J/molxK | 922.80          | Joback Method |
| cpg           | 726.82 | J/molxK | 961.19          | Joback Method |
| cpg           | 735.46 | J/molxK | 999.58          | Joback Method |
| cpg           | 742.78 | J/molxK | 1037.98         | Joback Method |
| cpg           | 748.76 | J/molxK | 1076.37         | Joback Method |
| cpg           | 753.39 | J/molxK | 1114.76         | Joback Method |
| cpg           | 756.67 | J/molxK | 1153.15         | 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=U405758&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U405758&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.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>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>h vap:</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>m cvol:</b>  | McGowan's characteristic volume                 |
| <b>pc:</b>      | Critical Pressure                               |
| <b>r inpol:</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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