

# Fumaric acid, 3,4-dimethoxyphenyl propyl ester

|                      |                                                                                   |
|----------------------|-----------------------------------------------------------------------------------|
| Inchi:               | InChI=1S/C15H18O6/c1-4-9-20-14(16)7-8-15(17)21-11-5-6-12(18-2)13(10-11)19-3/h5-8, |
| InchiKey:            | ZTJKSTVJDDCBPR-BQYQJAHWSA-N                                                       |
| Formula:             | C15H18O6                                                                          |
| SMILES:              | CCOC(=O)C=CC(=O)Oc1ccc(OC)c(OC)c1                                                 |
| Mol. weight [g/mol]: | 294.30                                                                            |

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | -429.05 | kJ/mol  | Joback Method  |
| hf            | -776.16 | kJ/mol  | Joback Method  |
| hfus          | 36.02   | kJ/mol  | Joback Method  |
| hvap          | 75.67   | kJ/mol  | Joback Method  |
| log10ws       | -2.83   |         | Crippen Method |
| logp          | 2.119   |         | Crippen Method |
| mcvol         | 220.770 | ml/mol  | McGowan Method |
| pc            | 1980.59 | kPa     | Joback Method  |
| rinpol        | 2253.00 |         | NIST Webbook   |
| tb            | 780.82  | K       | Joback Method  |
| tc            | 989.28  | K       | Joback Method  |
| tf            | 493.97  | K       | Joback Method  |
| vc            | 0.832   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 621.97    | J/mol×K | 780.82          | Joback Method |
| cpg           | 679.24    | J/mol×K | 954.53          | Joback Method |
| cpg           | 669.79    | J/mol×K | 919.79          | Joback Method |
| cpg           | 659.33    | J/mol×K | 885.05          | Joback Method |
| cpg           | 647.87    | J/mol×K | 850.31          | Joback Method |
| cpg           | 635.41    | J/mol×K | 815.56          | Joback Method |
| cpg           | 687.65    | J/mol×K | 989.28          | Joback Method |
| dvisc         | 0.0000540 | Pa×s    | 780.82          | Joback Method |
| dvisc         | 0.0000671 | Pa×s    | 733.01          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0000861 | Pa×s | 685.20 | Joback Method |
| dvisc | 0.0001146 | Pa×s | 637.39 | Joback Method |
| dvisc | 0.0001597 | Pa×s | 589.59 | Joback Method |
| dvisc | 0.0002360 | Pa×s | 541.78 | Joback Method |
| dvisc | 0.0003763 | Pa×s | 493.97 | Joback Method |

## Sources

|                        |                                                                                                                                           |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| <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>                                     |
| <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=U348164&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U348164&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                                 |

Latest version available from:

<https://www.chemeo.com/cid/93-697-6/Fumaric-acid-3-4-dimethoxyphenyl-propyl-ester.pdf>

Generated by Cheméo on 2025-12-05 13:48:11.957599189 +0000 UTC m=+4690689.487639843.

Cheméo (<https://www.chemeo.com>) is the biggest free database of chemical and physical data for the process industry.