

# Fumaric acid, 2,6-dichlorophenyl 3-chlorophenyl ester

|                             |  |
|-----------------------------|--|
| <b>Inchi:</b>               | InChI=1S/C16H9Cl3O4/c17-10-3-1-4-11(9-10)22-14(20)7-8-15(21)23-16-12(18)5-2-6-13 |
| <b>InchiKey:</b>            | WUPTYAPXYVSYDZ-BQYQJAHWSA-N  |
| <b>Formula:</b>             | C16H9Cl3O4   |
| <b>SMILES:</b>              | O=C(C=CC(=O)Oc1c(Cl)cccc1Cl)Oc1cccc(Cl)c1  |
| <b>Mol. weight [g/mol]:</b> | 371.60   |

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | -143.64 | kJ/mol  | Joback Method  |
| hf            | -354.52 | kJ/mol  | Joback Method  |
| hfus          | 42.48   | kJ/mol  | Joback Method  |
| hvap          | 89.17   | kJ/mol  | Joback Method  |
| log10ws       | -5.66   |         | Crippen Method |
| logp          | 4.714   |         | Crippen Method |
| mcvol         | 236.080 | ml/mol  | McGowan Method |
| pc            | 2258.96 | kPa     | Joback Method  |
| rinpol        | 2616.00 |         | NIST Webbook   |
| rinpol        | 2616.00 |         | NIST Webbook   |
| tb            | 902.81  | K       | Joback Method  |
| tc            | 1154.56 | K       | Joback Method  |
| tf            | 589.48  | K       | Joback Method  |
| vc            | 0.890   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 589.02    | J/molxK | 902.81          | Joback Method |
| cpg           | 622.99    | J/molxK | 1112.60         | Joback Method |
| cpg           | 618.16    | J/molxK | 1070.65         | Joback Method |
| cpg           | 612.39    | J/molxK | 1028.69         | Joback Method |
| cpg           | 605.64    | J/molxK | 986.73          | Joback Method |
| cpg           | 597.86    | J/molxK | 944.77          | Joback Method |
| cpg           | 626.94    | J/molxK | 1154.56         | Joback Method |
| dvisc         | 0.0000577 | Paxs    | 902.81          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0000705 | Paxs | 850.59 | Joback Method |
| dvisc | 0.0000885 | Paxs | 798.37 | Joback Method |
| dvisc | 0.0001147 | Paxs | 746.14 | Joback Method |
| dvisc | 0.0001545 | Paxs | 693.92 | Joback Method |
| dvisc | 0.0002186 | Paxs | 641.70 | Joback Method |
| dvisc | 0.0003288 | Paxs | 589.48 | 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=U405864&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U405864&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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