

# 3-Methoxy-2,4,5-trifluorobenzoic acid, 2,4,5-trichlorophenyl ester

**Inchi:** InChI=1S/C14H6Cl3F3O3/c1-22-13-11(19)5(2-9(18)12(13)20)14(21)23-10-4-7(16)6(15)3  
**InchiKey:** XJURORRGGKGZNA-UHFFFAOYSA-N  
**Formula:** C14H6Cl3F3O3  
**SMILES:** COc1c(F)c(F)cc(C(=O)Oc2cc(Cl)c(Cl)cc2Cl)c1F  
**Mol. weight [g/mol]:** 385.55

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | -734.73 | kJ/mol  | Joback Method  |
| hf            | -952.09 | kJ/mol  | Joback Method  |
| hfus          | 43.18   | kJ/mol  | Joback Method  |
| hvap          | 78.21   | kJ/mol  | Joback Method  |
| log10ws       | -6.73   |         | Crippen Method |
| logp          | 5.292   |         | Crippen Method |
| mcvol         | 215.940 | ml/mol  | McGowan Method |
| pc            | 2025.41 | kPa     | Joback Method  |
| rinpol        | 2311.00 |         | NIST Webbook   |
| rinpol        | 2311.00 |         | NIST Webbook   |
| tb            | 816.75  | K       | Joback Method  |
| tc            | 1040.61 | K       | Joback Method  |
| tf            | 573.94  | K       | Joback Method  |
| vc            | 0.847   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 520.44 | J/mol×K | 816.75          | Joback Method |
| cpg           | 529.25 | J/mol×K | 854.06          | Joback Method |
| cpg           | 537.20 | J/mol×K | 891.37          | Joback Method |
| cpg           | 544.28 | J/mol×K | 928.68          | Joback Method |
| cpg           | 550.46 | J/mol×K | 965.99          | Joback Method |
| cpg           | 555.74 | J/mol×K | 1003.30         | Joback Method |
| cpg           | 560.10 | J/mol×K | 1040.61         | Joback Method |

# Sources

|                        |                                                                                                                                           |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| <b>NIST Webbook:</b>   | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=U360575&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U360575&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>                                     |
| <b>McGowan Method:</b> | <a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</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>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>rlnpol:</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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