

# 2,6-Difluorobenzoic acid, 3-tridecyl ester

**Inchi:** InChI=1S/C20H30F2O2/c1-3-5-6-7-8-9-10-11-13-16(4-2)24-20(23)19-17(21)14-12-15-18  
**InchiKey:** SPZVCQPEMWWKKEK-UHFFFAOYSA-N  
**Formula:** C20H30F2O2  
**SMILES:** CCCCCCCCCC(CC)OC(=O)c1c(F)cccc1F  
**Mol. weight [g/mol]:** 340.45

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | -415.31 | kJ/mol               | Joback Method  |
| hf            | -884.84 | kJ/mol               | Joback Method  |
| hfus          | 46.24   | kJ/mol               | Joback Method  |
| hvap          | 70.85   | kJ/mol               | Joback Method  |
| log10ws       | -7.51   |                      | Crippen Method |
| logp          | 6.431   |                      | Crippen Method |
| mcvol         | 279.880 | ml/mol               | McGowan Method |
| pc            | 1211.51 | kPa                  | Joback Method  |
| rinpol        | 2136.00 |                      | NIST Webbook   |
| rinpol        | 2136.00 |                      | NIST Webbook   |
| tb            | 768.03  | K                    | Joback Method  |
| tc            | 953.00  | K                    | Joback Method  |
| tf            | 424.96  | K                    | Joback Method  |
| vc            | 1.101   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 841.47 | J/mol×K | 768.03          | Joback Method |
| cpg           | 858.73 | J/mol×K | 798.86          | Joback Method |
| cpg           | 875.02 | J/mol×K | 829.69          | Joback Method |
| cpg           | 890.36 | J/mol×K | 860.52          | Joback Method |
| cpg           | 904.80 | J/mol×K | 891.34          | Joback Method |
| cpg           | 918.34 | J/mol×K | 922.17          | Joback Method |
| cpg           | 931.02 | J/mol×K | 953.00          | Joback Method |

# Sources

|                        |   |
|------------------------|---|
| <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=U299770&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U299770&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.cheméo.com/doc/models/crippen_log10ws">https://www.cheméo.com/doc/models/crippen_log10ws</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>rinpola:</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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