# 2-Methoxybenzoic pentafluoropropionic anhydride

**Inchi:** InChI=1S/C11H7F5O4/c1-19-7-5-3-2-4-6(7)8(17)20-9(18)10(12,13)11(14,15)16/h2-5H,1H

**InchiKey:** FBLUJVZGOPHFPP-UHFFFAOYSA-N

**Formula:** C11H7F5O4

**SMILES:** COc1ccccc1C(=O)OC(=O)C(F)(F)C(F)(F)F

**Mol. weight [g/mol]:** 298.16

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -1291.69 | kJ/mol | Joback Method |
| hf | -1532.96 | kJ/mol | Joback Method |
| hfus | 24.04 | kJ/mol | Joback Method |
| hvap | 54.65 | kJ/mol | Joback Method |
| log10ws | -3.42 | | Crippen Method |
| logp | 2.576 | | Crippen Method |
| mcvol | 165.820 | ml/mol | McGowan Method |
| pc | 2372.59 | kPa | Joback Method |
| rinpol | 1306.00 | | NIST Webbook |
| rinpol | 1306.00 | | NIST Webbook |
| tb | 625.21 | K | Joback Method |
| tc | 817.70 | K | Joback Method |
| tf | 404.78 | K | Joback Method |
| vc | 0.659 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 434.49 | J/mol×K | 625.21 | Joback Method |
| cpg | 445.31 | J/mol×K | 657.29 | Joback Method |
| cpg | 455.35 | J/mol×K | 689.37 | Joback Method |
| cpg | 464.64 | J/mol×K | 721.46 | Joback Method |
| cpg | 473.21 | J/mol×K | 753.54 | Joback Method |
| cpg | 481.09 | J/mol×K | 785.62 | Joback Method |
| cpg | 488.33 | J/mol×K | 817.70 | Joback Method |

# Sources

| | |
|---|---|
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=U375002&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |
| **Joback Method:** | https://en.wikipedia.org/wiki/Joback_method |
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |

# Legend

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|---|---|
| **cpg:** | Ideal gas heat capacity |
| **gf:** | Standard Gibbs free energy of formation |
| **hf:** | Enthalpy of formation at standard conditions |
| **hfus:** | Enthalpy of fusion at standard conditions |
| **hvap:** | Enthalpy of vaporization at standard conditions |
| **log10ws:** | Log10 of Water solubility in mol/l |
| **logp:** | Octanol/Water partition coefficient |
| **mcvol:** | McGowan's characteristic volume |
| **pc:** | Critical Pressure |
| **rinpol:** | Non-polar retention indices |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |