# 2,3-Difluorobenzoyl chloride

**Inchi:** InChI=1S/C7H3ClF2O/c8-7(11)4-2-1-3-5(9)6(4)10/h1-3H
**InchiKey:** CDCFERWURRNLLA-UHFFFAOYSA-N
**Formula:** C7H3ClF2O
**SMILES:** O=C(Cl)c1cccc(F)c1F
**Mol. weight [g/mol]:** 176.55
**CAS:** 18355-73-2

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -429.26 | kJ/mol | Joback Method |
| hf | -494.76 | kJ/mol | Joback Method |
| hfus | 19.11 | kJ/mol | Joback Method |
| hvap | 44.27 | kJ/mol | Joback Method |
| log10ws | -3.02 | | Crippen Method |
| logp | 2.344 | | Crippen Method |
| mcvol | 103.080 | ml/mol | McGowan Method |
| pc | 3659.77 | kPa | Joback Method |
| tb | 486.04 | K | Joback Method |
| tc | 696.07 | K | Joback Method |
| tf | 301.14 | K | Joback Method |
| vc | 0.410 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 192.28 | J/mol×K | 486.04 | Joback Method |
| cpg | 200.24 | J/mol×K | 521.04 | Joback Method |
| cpg | 207.73 | J/mol×K | 556.05 | Joback Method |
| cpg | 214.74 | J/mol×K | 591.05 | Joback Method |
| cpg | 221.31 | J/mol×K | 626.06 | Joback Method |
| cpg | 227.44 | J/mol×K | 661.06 | Joback Method |
| cpg | 233.14 | J/mol×K | 696.07 | Joback Method |

# Sources

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|---|---|
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=C18355732&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 |

# 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 |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |