# 4-Fluoro-2-nitrobenzaldehyde

**Inchi:** InChI=1S/C7H4FNO3/c8-6-2-1-5(4-10)7(3-6)9(11)12/h1-4H
**InchiKey:** ORCGMGUNVGVHDN-UHFFFAOYSA-N
**Formula:** C7H4FNO3
**SMILES:** O=Cc1ccc(F)cc1[N+](=O)[O-]
**Mol. weight [g/mol]:** 169.11
**CAS:** 2923-96-8

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -157.57 | kJ/mol | Joback Method |
| hf | -266.67 | kJ/mol | Joback Method |
| hfus | 23.88 | kJ/mol | Joback Method |
| hvap | 57.27 | kJ/mol | Joback Method |
| log10ws | -2.70 | | Crippen Method |
| logp | 1.546 | | Crippen Method |
| mcvol | 106.490 | ml/mol | McGowan Method |
| pc | 4173.09 | kPa | Joback Method |
| tb | 595.97 | K | Joback Method |
| tc | 835.95 | K | Joback Method |
| tf | 406.31 | K | Joback Method |
| vc | 0.436 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 239.50 | J/mol×K | 595.97 | Joback Method |
| cpg | 248.15 | J/mol×K | 635.97 | Joback Method |
| cpg | 256.14 | J/mol×K | 675.96 | Joback Method |
| cpg | 263.50 | J/mol×K | 715.96 | Joback Method |
| cpg | 270.25 | J/mol×K | 755.95 | Joback Method |
| cpg | 276.43 | J/mol×K | 795.95 | Joback Method |
| cpg | 282.05 | J/mol×K | 835.95 | Joback Method |

# Sources

| | |
|---|---|
| **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 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=C2923968&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |

# Legend

| | |
|---|---|
| **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 |