# Ethyl fluoroformate

**Other names:** FCO2C2H5
**Inchi:** InChI=1S/C3H5FO2/c1-2-6-3(4)5/h2H2,1H3
**InchiKey:** PWEHMQBAMSTRDF-UHFFFAOYSA-N
**Formula:** C3H5FO2
**SMILES:** CCOC(=O)F
**Mol. weight [g/mol]:** 92.07
**CAS:** 461-64-3

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| affp | 757.00 | kJ/mol | NIST Webbook |
| basg | 726.00 | kJ/mol | NIST Webbook |
| gf | -454.35 | kJ/mol | Joback Method |
| hf | -546.16 | kJ/mol | Joback Method |
| hfus | 9.39 | kJ/mol | Joback Method |
| hvap | 30.61 | kJ/mol | Joback Method |
| log10ws | -0.77 | | Crippen Method |
| logp | 1.112 | | Crippen Method |
| mcvol | 62.340 | ml/mol | McGowan Method |
| pc | 4414.96 | kPa | Joback Method |
| tb | 329.50 ± 3.00 | K | NIST Webbook |
| tc | 513.10 | K | Joback Method |
| tf | 196.32 | K | Joback Method |
| vc | 0.245 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 106.62 | J/mol×K | 343.60 | Joback Method |
| cpg | 111.64 | J/mol×K | 371.85 | Joback Method |
| cpg | 116.56 | J/mol×K | 400.10 | Joback Method |
| cpg | 121.38 | J/mol×K | 428.35 | Joback Method |
| cpg | 126.08 | J/mol×K | 456.60 | Joback Method |
| cpg | 130.67 | J/mol×K | 484.85 | Joback Method |

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|---|---|---|---|---|
| cpg | 135.13 | J/mol×K | 513.10 | 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=C461643&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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|---|---|
| **affp:** | Proton affinity |
| **basg:** | Gas basicity |
| **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 |