# Benzene, 1-ethyl-4-methoxy-

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|---|---|
| **Other names:** | Anisole, p-ethyl- |
| | p-Ethylanisole |
| | 1-Ethyl-4-methoxybenzene |
| | 4-Ethylanisole |
| | 1-Methoxy-4-ethyl-benzene |
| | p-Ethylanisol |
| **Inchi:** | InChI=1S/C9H12O/c1-3-8-4-6-9(10-2)7-5-8/h4-7H,3H2,1-2H3 |
| **InchiKey:** | HDNRAPAFJLXKBV-UHFFFAOYSA-N |
| **Formula:** | C9H12O |
| **SMILES:** | CCc1ccc(OC)cc1 |
| **Mol. weight [g/mol]:** | 136.19 |
| **CAS:** | 1515-95-3 |

# Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 22.68 | kJ/mol | Joback Method |
| hf | -136.25 | kJ/mol | Joback Method |
| hfus | 13.91 | kJ/mol | Joback Method |
| hvap | 40.98 | kJ/mol | Joback Method |
| log10ws | -2.39 | | Crippen Method |
| logp | 2.258 | | Crippen Method |
| mcvol | 119.780 | ml/mol | McGowan Method |
| pc | 3145.56 | kPa | Joback Method |
| rinpol | 1110.00 | | NIST Webbook |
| rinpol | 1122.00 | | NIST Webbook |
| rinpol | 1091.00 | | NIST Webbook |
| rinpol | 1104.00 | | NIST Webbook |
| rinpol | 1124.00 | | NIST Webbook |
| rinpol | 1110.00 | | NIST Webbook |
| rinpol | 1122.00 | | NIST Webbook |
| ripol | 1551.20 | | NIST Webbook |
| ripol | 1550.80 | | NIST Webbook |
| ripol | 1550.80 | | NIST Webbook |
| tb | 468.70 | K | NIST Webbook |
| tb | 467.00 ± 3.00 | K | NIST Webbook |
| tb | 473.00 ± 4.00 | K | NIST Webbook |
| tc | 666.56 | K | Joback Method |

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|---|---|---|---|
| tf | 252.36 | K | Joback Method |
| vc | 0.450 | m3/kmol | Joback Method |

# Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 239.26 | J/mol×K | 459.40 | Joback Method |
| cpg | 252.44 | J/mol×K | 493.93 | Joback Method |
| cpg | 265.00 | J/mol×K | 528.45 | Joback Method |
| cpg | 276.96 | J/mol×K | 562.98 | Joback Method |
| cpg | 288.33 | J/mol×K | 597.50 | Joback Method |
| cpg | 299.11 | J/mol×K | 632.03 | Joback Method |
| cpg | 309.32 | J/mol×K | 666.56 | Joback Method |
| dvisc | 0.0018481 | Pa×s | 252.36 | Joback Method |
| dvisc | 0.0010126 | Pa×s | 286.87 | Joback Method |
| dvisc | 0.0006314 | Pa×s | 321.37 | Joback Method |
| dvisc | 0.0004314 | Pa×s | 355.88 | Joback Method |
| dvisc | 0.0003153 | Pa×s | 390.39 | Joback Method |
| dvisc | 0.0002425 | Pa×s | 424.89 | Joback Method |
| dvisc | 0.0001940 | Pa×s | 459.40 | Joback Method |
| hvapt | 51.90 | kJ/mol | 388.00 | NIST Webbook |

# Pressure Dependent Properties

| Property code | Value | Unit | Pressure [kPa] | Source |
|---|---|---|---|---|
| tbrp | 356.70 | K | 2.10 | NIST Webbook |

# Sources

**McGowan Method:** http://link.springer.com/article/10.1007/BF02311772

**NIST Webbook:** http://webbook.nist.gov/cgi/cbook.cgi?ID=C1515953&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

| | |
|---|---|
| **cpg:** | Ideal gas heat capacity |
| **dvisc:** | Dynamic viscosity |
| **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 |
| **hvapt:** | Enthalpy of vaporization at a given temperature |
| **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 |
| **ripol:** | Polar retention indices |
| **tb:** | Normal Boiling Point Temperature |
| **tbrp:** | Boiling point at reduced pressure |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |