# 2,4-Dimethoxytoluene

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|---|---|
| **Other names:** | Benzene, 2,4-dimethoxy-1-methyl- |
| | Benzene, 1,3-dimethoxy-4-methyl |
| **Inchi:** | InChI=1S/C9H12O2/c1-7-4-5-8(10-2)6-9(7)11-3/h4-6H,1-3H3 |
| **InchiKey:** | OSNMRWURXNWCGA-UHFFFAOYSA-N |
| **Formula:** | C9H12O2 |
| **SMILES:** | COc1ccc(C)c(OC)c1 |
| **Mol. weight [g/mol]:** | 152.19 |
| **CAS:** | 38064-90-3 |

# Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -91.95 | kJ/mol | Joback Method |
| hf | -279.94 | kJ/mol | Joback Method |
| hfus | 14.70 | kJ/mol | Joback Method |
| hvap | 44.05 | kJ/mol | Joback Method |
| log10ws | -2.19 | | Crippen Method |
| logp | 2.012 | | Crippen Method |
| mcvol | 125.650 | ml/mol | McGowan Method |
| pc | 3035.62 | kPa | Joback Method |
| rinpol | 1244.00 | | NIST Webbook |
| tb | 484.20 | K | NIST Webbook |
| tc | 693.63 | K | Joback Method |
| tf | 287.11 | K | Joback Method |
| vc | 0.468 | m3/kmol | Joback Method |

# Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 262.85 | J/mol×K | 486.80 | Joback Method |
| cpg | 320.65 | J/mol×K | 659.16 | Joback Method |
| cpg | 310.08 | J/mol×K | 624.69 | Joback Method |
| cpg | 299.00 | J/mol×K | 590.21 | Joback Method |
| cpg | 287.43 | J/mol×K | 555.74 | Joback Method |
| cpg | 275.38 | J/mol×K | 521.27 | Joback Method |

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|---|---|---|---|---|
| cpg | 330.70 | J/mol×K | 693.63 | Joback Method |
| dvisc | 0.0001604 | Pa×s | 486.80 | Joback Method |
| dvisc | 0.0001961 | Pa×s | 453.52 | Joback Method |
| dvisc | 0.0002475 | Pa×s | 420.24 | Joback Method |
| dvisc | 0.0003252 | Pa×s | 386.95 | Joback Method |
| dvisc | 0.0004497 | Pa×s | 353.67 | Joback Method |
| dvisc | 0.0006652 | Pa×s | 320.39 | Joback Method |
| dvisc | 0.0010774 | Pa×s | 287.11 | Joback Method |

# Pressure Dependent Properties

| Property code | Value | Unit | Pressure [kPa] | Source |
|---|---|---|---|---|
| tbrp | 388.20 | K | 4.00 | NIST Webbook |

# Sources

**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=C38064903&Units=SI
**Crippen Method:** http://pubs.acs.org/doi/abs/10.1021/ci990307l
**Crippen Method:** https://www.chemeo.com/doc/models/crippen_log10ws

# 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
**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

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|---|---|
| **tb:** | Normal Boiling Point Temperature |
| **tbrp:** | Boiling point at reduced pressure |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |