

Benzaldehyde, 2,3-dimethoxy-

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|-----------------------------|--|
| Other names: | o-Veratraldehyde 2,3-Dimethoxybenzaldehyde 2-Hydroxy-3-methoxybenzaldehyde, methyl ether |
| Inchi: | InChI=1S/C9H10O3/c1-11-8-5-3-4-7(6-10)9(8)12-2/h3-6H,1-2H3 |
| InchiKey: | JIVGSHFYXPRRSZ-UHFFFAOYSA-N |
| Formula: | C9H10O3 |
| SMILES: | COc1cccc(C=O)c1OC |
| Mol. weight [g/mol]: | 166.17 |
| CAS: | 86-51-1 |

Physical Properties

| Property code | Value | Unit | Source |
|---------------|---------|----------------------|----------------|
| gf | -191.47 | kJ/mol | Joback Method |
| hf | -365.52 | kJ/mol | Joback Method |
| hfus | 16.99 | kJ/mol | Joback Method |
| hvap | 50.77 | kJ/mol | Joback Method |
| log10ws | -1.95 | | Crippen Method |
| logp | 1.516 | | Crippen Method |
| mcvol | 127.220 | ml/mol | McGowan Method |
| pc | 3299.15 | kPa | Joback Method |
| rinpol | 1362.00 | | NIST Webbook |
| rinpol | 1391.50 | | NIST Webbook |
| rinpol | 1391.50 | | NIST Webbook |
| tb | 535.46 | K | Joback Method |
| tc | 746.40 | K | Joback Method |
| tf | 329.11 | K | Joback Method |
| vc | 0.484 | m ³ /kmol | Joback Method |

Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---------------|--------|---------|-----------------|---------------|
| cpg | 279.82 | J/mol×K | 535.46 | Joback Method |
| cpg | 291.21 | J/mol×K | 570.62 | Joback Method |
| cpg | 302.11 | J/mol×K | 605.77 | Joback Method |

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|-------|-----------|---------|--------|---------------|
| cpg | 312.49 | J/molxK | 640.93 | Joback Method |
| cpg | 322.35 | J/molxK | 676.09 | Joback Method |
| cpg | 331.68 | J/molxK | 711.24 | Joback Method |
| cpg | 340.46 | J/molxK | 746.40 | Joback Method |
| dvisc | 0.0011750 | Paxs | 329.11 | Joback Method |
| dvisc | 0.0007578 | Paxs | 363.50 | Joback Method |
| dvisc | 0.0005273 | Paxs | 397.89 | Joback Method |
| dvisc | 0.0003887 | Paxs | 432.29 | Joback Method |
| dvisc | 0.0002996 | Paxs | 466.68 | Joback Method |
| dvisc | 0.0002394 | Paxs | 501.07 | Joback Method |
| dvisc | 0.0001969 | Paxs | 535.46 | Joback Method |

Pressure Dependent Properties

| Property code | Value | Unit | Pressure [kPa] | Source |
|---------------|--------|------|----------------|--------------|
| tbrp | 410.20 | K | 1.60 | NIST Webbook |

Sources

| | |
|------------------------|---|
| McGowan Method: | http://link.springer.com/article/10.1007/BF02311772 |
| NIST Webbook: | http://webbook.nist.gov/cgi/cbook.cgi?ID=C86511&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 |
| 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 |
| tb: | Normal Boiling Point Temperature |
| tbrp: | Boiling point at reduced pressure |
| tc: | Critical Temperature |
| tf: | Normal melting (fusion) point |
| vc: | Critical Volume |

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