

# Benzeneacetic acid, 2-methoxy-, methyl ester

|                      |                                                                                                                                                                                                                                                                          |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Other names:         | Acetic acid, (o-methoxyphenyl)-, methyl ester<br>Methyl (2-methoxyphenyl)acetate<br>Methyl o-methoxyphenylacetate<br>Methyl ester of o-methoxyphenylacetic acid<br>2-Hydroxyphenylacetic acid, methyl ether, methyl ester<br>Acetic acid, 2-methoxyphenoxy, methyl ester |
| Inchi:               | InChI=1S/C10H12O3/c1-12-9-6-4-3-5-8(9)7-10(11)13-2/h3-6H,7H2,1-2H3                                                                                                                                                                                                       |
| InchiKey:            | BNQRSYFOIRGRKV-UHFFFAOYSA-N                                                                                                                                                                                                                                              |
| Formula:             | C10H12O3                                                                                                                                                                                                                                                                 |
| SMILES:              | COC(=O)Cc1ccccc1OC                                                                                                                                                                                                                                                       |
| Mol. weight [g/mol]: | 180.20                                                                                                                                                                                                                                                                   |
| CAS:                 | 27798-60-3                                                                                                                                                                                                                                                               |

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | -202.82 | kJ/mol  | Joback Method  |
| hf            | -401.69 | kJ/mol  | Joback Method  |
| hfus          | 19.28   | kJ/mol  | Joback Method  |
| hvap          | 52.36   | kJ/mol  | Joback Method  |
| log10ws       | -1.68   |         | Crippen Method |
| logp          | 1.411   |         | Crippen Method |
| mcvol         | 141.310 | ml/mol  | McGowan Method |
| pc            | 2976.29 | kPa     | Joback Method  |
| rinpol        | 1389.40 |         | NIST Webbook   |
| ripol         | 2024.00 |         | NIST Webbook   |
| ripol         | 2024.00 |         | NIST Webbook   |
| tb            | 558.57  | K       | Joback Method  |
| tc            | 770.06  | K       | Joback Method  |
| tf            | 335.79  | K       | Joback Method  |
| vc            | 0.529   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---------------|-------|------|-----------------|--------|
|---------------|-------|------|-----------------|--------|

|       |           |         |        |               |
|-------|-----------|---------|--------|---------------|
| cpg   | 323.98    | J/mol×K | 558.57 | Joback Method |
| cpg   | 337.02    | J/mol×K | 593.82 | Joback Method |
| cpg   | 349.42    | J/mol×K | 629.07 | Joback Method |
| cpg   | 361.16    | J/mol×K | 664.31 | Joback Method |
| cpg   | 372.24    | J/mol×K | 699.56 | Joback Method |
| cpg   | 382.66    | J/mol×K | 734.81 | Joback Method |
| cpg   | 392.43    | J/mol×K | 770.06 | Joback Method |
| dvisc | 0.0013400 | Pa×s    | 335.79 | Joback Method |
| dvisc | 0.0008036 | Pa×s    | 372.92 | Joback Method |
| dvisc | 0.0005287 | Pa×s    | 410.05 | Joback Method |
| dvisc | 0.0003728 | Pa×s    | 447.18 | Joback Method |
| dvisc | 0.0002774 | Pa×s    | 484.31 | Joback Method |
| dvisc | 0.0002153 | Pa×s    | 521.44 | Joback Method |
| dvisc | 0.0001728 | Pa×s    | 558.57 | Joback Method |

## Sources

|                        |                                                                                                                                               |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>McGowan Method:</b> | <a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>                         |
| <b>NIST Webbook:</b>   | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C27798603&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C27798603&amp;Units=SI</a> |
| <b>Crippen Method:</b> | <a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</a>                                     |
| <b>Crippen Method:</b> | <a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>                             |
| <b>Joback Method:</b>  | <a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>                                         |

## Legend

|                 |                                                 |
|-----------------|-------------------------------------------------|
| <b>cpg:</b>     | Ideal gas heat capacity                         |
| <b>dvisc:</b>   | Dynamic viscosity                               |
| <b>gf:</b>      | Standard Gibbs free energy of formation         |
| <b>hf:</b>      | Enthalpy of formation at standard conditions    |
| <b>hfus:</b>    | Enthalpy of fusion at standard conditions       |
| <b>hvap:</b>    | Enthalpy of vaporization at standard conditions |
| <b>log10ws:</b> | Log10 of Water solubility in mol/l              |
| <b>logp:</b>    | Octanol/Water partition coefficient             |
| <b>mccvol:</b>  | McGowan's characteristic volume                 |
| <b>pc:</b>      | Critical Pressure                               |
| <b>rinpol:</b>  | Non-polar retention indices                     |
| <b>ripol:</b>   | Polar retention indices                         |
| <b>tb:</b>      | Normal Boiling Point Temperature                |

**tc:** Critical Temperature  
**tf:** Normal melting (fusion) point  
**vc:** Critical Volume

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