# Methacrylic acid, 2,3-dimethylphenyl ester

**Inchi:** InChI=1S/C12H14O2/c1-8(2)12(13)14-11-7-5-6-9(3)10(11)4/h5-7H,1H2,2-4H3
**InchiKey:** PDRUPOCQIPHOBL-UHFFFAOYSA-N
**Formula:** C12H14O2
**SMILES:** C=C(C)C(=O)Oc1cccc(C)c1C
**Mol. weight [g/mol]:** 190.24

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -11.32 | kJ/mol | Joback Method |
| hf | -206.58 | kJ/mol | Joback Method |
| hfus | 20.30 | kJ/mol | Joback Method |
| hvap | 54.47 | kJ/mol | Joback Method |
| log10ws | -3.43 | | Crippen Method |
| logp | 2.785 | | Crippen Method |
| mcvol | 159.320 | ml/mol | McGowan Method |
| pc | 2561.10 | kPa | Joback Method |
| rinpol | 1448.00 | | NIST Webbook |
| tb | 583.45 | K | Joback Method |
| tc | 799.42 | K | Joback Method |
| tf | 332.90 | K | Joback Method |
| vc | 0.606 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 372.75 | J/mol×K | 583.45 | Joback Method |
| cpg | 386.99 | J/mol×K | 619.45 | Joback Method |
| cpg | 400.43 | J/mol×K | 655.44 | Joback Method |
| cpg | 413.11 | J/mol×K | 691.44 | Joback Method |
| cpg | 425.02 | J/mol×K | 727.43 | Joback Method |
| cpg | 436.20 | J/mol×K | 763.43 | Joback Method |
| cpg | 446.66 | J/mol×K | 799.42 | Joback Method |

# Sources

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|---|---|
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |
| **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=U360692&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |

# Legend

| | |
|---|---|
| **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 |
| **rinpol:** | Non-polar retention indices |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |