# Mesitylacetic acid

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|---|---|
| **Other names:** | 2-Mesityleneacetic acid |
| | Benzeneacetic acid, 2,4,6-trimethyl- |
| | (2,4,6-trimethylphenyl)acetic acid |
| **Inchi:** | InChI=1S/C11H14O2/c1-7-4-8(2)10(6-11(12)13)9(3)5-7/h4-5H,6H2,1-3H3,(H,12,13) |
| **InchiKey:** | CQWMQAKKAHTCSC-UHFFFAOYSA-N |
| **Formula:** | C11H14O2 |
| **SMILES:** | Cc1cc(C)c(CC(=O)O)c(C)c1 |
| **Mol. weight [g/mol]:** | 178.23 |
| **CAS:** | 4408-60-0 |

# Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -140.48 | kJ/mol | Joback Method |
| hf | -333.06 | kJ/mol | Joback Method |
| hfus | 22.81 | kJ/mol | Joback Method |
| hvap | 67.77 | kJ/mol | Joback Method |
| log10ws | -2.80 | | Crippen Method |
| logp | 2.239 | | Crippen Method |
| mcvol | 149.530 | ml/mol | McGowan Method |
| pc | 2976.29 | kPa | Joback Method |
| tb | 638.75 | K | Joback Method |
| tc | 839.03 | K | Joback Method |
| tf | 388.46 | K | Joback Method |
| vc | 0.569 | m3/kmol | Joback Method |

# Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 372.60 | J/mol×K | 638.75 | Joback Method |
| cpg | 424.01 | J/mol×K | 805.65 | Joback Method |
| cpg | 414.88 | J/mol×K | 772.27 | Joback Method |
| cpg | 405.19 | J/mol×K | 738.89 | Joback Method |
| cpg | 394.92 | J/mol×K | 705.51 | Joback Method |
| cpg | 384.06 | J/mol×K | 672.13 | Joback Method |

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|---|---|---|---|---|
| cpg | 432.59 | J/mol×K | 839.03 | Joback Method |
| dvisc | 0.0000718 | Pa×s | 638.75 | Joback Method |
| dvisc | 0.0001018 | Pa×s | 597.04 | Joback Method |
| dvisc | 0.0001522 | Pa×s | 555.32 | Joback Method |
| dvisc | 0.0002427 | Pa×s | 513.61 | Joback Method |
| dvisc | 0.0004203 | Pa×s | 471.89 | Joback Method |
| dvisc | 0.0008099 | Pa×s | 430.18 | Joback Method |
| dvisc | 0.0017966 | Pa×s | 388.46 | Joback Method |

# Sources

**McGowan Method:** http://link.springer.com/article/10.1007/BF02311772
**NIST Webbook:** http://webbook.nist.gov/cgi/cbook.cgi?ID=C4408600&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
**tb:** Normal Boiling Point Temperature
**tc:** Critical Temperature
**tf:** Normal melting (fusion) point
**vc:** Critical Volume