# 2-(p-Chlorophenyl)-2-methylpropionic acid

**Other names:** 4-Chloro-«alpha»,«alpha»-dimethylphenylacetic acid
Benzeneacetic acid, 4-chloro-«alpha»,«alpha»-dimethyl-
2-(4-chlorophenyl)-2-methylpropionic acid
**Inchi:** InChI=1S/C10H11ClO2/c1-10(2,9(12)13)7-3-5-8(11)6-4-7/h3-6H,1-2H3,(H,12,13)
**InchiKey:** SSFDAZXGUKDEAH-UHFFFAOYSA-N
**Formula:** C10H11ClO2
**SMILES:** CC(C)(C(=O)O)c1ccc(Cl)cc1
**Mol. weight [g/mol]:** 198.65
**CAS:** 6258-30-6

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -138.73 | kJ/mol | Joback Method |
| hf | -313.97 | kJ/mol | Joback Method |
| hfus | 17.78 | kJ/mol | Joback Method |
| hvap | 67.31 | kJ/mol | Joback Method |
| log10ws | -2.57 | | Crippen Method |
| logp | 2.702 | | Crippen Method |
| mcvol | 147.680 | ml/mol | McGowan Method |
| pc | 3360.64 | kPa | Joback Method |
| tb | 640.11 | K | Joback Method |
| tc | 856.54 | K | Joback Method |
| tf | 384.49 | K | Joback Method |
| vc | 0.550 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 353.79 | J/mol×K | 640.11 | Joback Method |
| cpg | 364.44 | J/mol×K | 676.18 | Joback Method |
| cpg | 374.29 | J/mol×K | 712.25 | Joback Method |
| cpg | 383.42 | J/mol×K | 748.32 | Joback Method |
| cpg | 391.86 | J/mol×K | 784.40 | Joback Method |
| cpg | 399.68 | J/mol×K | 820.47 | Joback Method |

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|---|---|---|---|---|
| cpg | 406.92 | J/mol×K | 856.54 | Joback Method |
| dvisc | 0.0028724 | Pa×s | 384.49 | Joback Method |
| dvisc | 0.0011253 | Pa×s | 427.09 | Joback Method |
| dvisc | 0.0005226 | Pa×s | 469.70 | Joback Method |
| dvisc | 0.0002757 | Pa×s | 512.30 | Joback Method |
| dvisc | 0.0001605 | Pa×s | 554.90 | Joback Method |
| dvisc | 0.0001009 | Pa×s | 597.51 | Joback Method |
| dvisc | 0.0000675 | Pa×s | 640.11 | Joback Method |

# Sources

**McGowan Method:** http://link.springer.com/article/10.1007/BF02311772
**NIST Webbook:** http://webbook.nist.gov/cgi/cbook.cgi?ID=C6258306&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