# Nonanoic acid, 9-chloro-

**Inchi:** InChI=1S/C9H17ClO2/c10-8-6-4-2-1-3-5-7-9(11)12/h1-8H2,(H,11,12)
**InchiKey:** DFJLDESPZKERQH-UHFFFAOYSA-N
**Formula:** C9H17ClO2
**SMILES:** O=C(O)CCCCCCCCCl
**Mol. weight [g/mol]:** 192.68
**CAS:** 1120-10-1

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -252.77 | kJ/mol | Joback Method |
| hf | -509.64 | kJ/mol | Joback Method |
| hfus | 28.95 | kJ/mol | Joback Method |
| hvap | 63.44 | kJ/mol | Joback Method |
| log10ws | -2.84 | | Crippen Method |
| logp | 3.041 | | Crippen Method |
| mcvol | 157.350 | ml/mol | McGowan Method |
| pc | 2592.49 | kPa | Joback Method |
| rinpol | 1584.00 | | NIST Webbook |
| rinpol | 1584.00 | | NIST Webbook |
| tb | 588.80 | K | Joback Method |
| tc | 761.46 | K | Joback Method |
| tf | 331.86 | K | Joback Method |
| vc | 0.614 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 382.40 | J/mol×K | 588.80 | Joback Method |
| cpg | 393.52 | J/mol×K | 617.58 | Joback Method |
| cpg | 404.13 | J/mol×K | 646.35 | Joback Method |
| cpg | 414.26 | J/mol×K | 675.13 | Joback Method |
| cpg | 423.92 | J/mol×K | 703.91 | Joback Method |
| cpg | 433.13 | J/mol×K | 732.68 | Joback Method |
| cpg | 441.89 | J/mol×K | 761.46 | Joback Method |

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|---|---|---|---|---|
| dvisc | 0.0080256 | Pa×s | 331.86 | Joback Method |
| dvisc | 0.0025802 | Pa×s | 374.68 | Joback Method |
| dvisc | 0.0010469 | Pa×s | 417.51 | Joback Method |
| dvisc | 0.0005024 | Pa×s | 460.33 | Joback Method |
| dvisc | 0.0002732 | Pa×s | 503.15 | Joback Method |
| dvisc | 0.0001635 | Pa×s | 545.98 | Joback Method |
| dvisc | 0.0001054 | Pa×s | 588.80 | Joback Method |

# Sources

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|---|---|
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=C1120101&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

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