# 4-Nonyl nitrate

**Inchi:** InChI=1S/C9H19NO3/c1-3-5-6-8-9(7-4-2)13-10(11)12/h9H,3-8H2,1-2H3
**InchiKey:** WRZUPEJXBZEOAM-UHFFFAOYSA-N
**Formula:** C9H19NO3
**SMILES:** CCCCCC(CCC)O[N+](=O)[O-]
**Mol. weight [g/mol]:** 189.25

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -46.99 | kJ/mol | Joback Method |
| hf | -377.35 | kJ/mol | Joback Method |
| hfus | 28.09 | kJ/mol | Joback Method |
| hvap | 54.24 | kJ/mol | Joback Method |
| log10ws | -3.86 | | Crippen Method |
| logp | 2.944 | | Crippen Method |
| mcvol | 160.960 | ml/mol | McGowan Method |
| pc | 2313.61 | kPa | Joback Method |
| rinpol | 1219.00 | | NIST Webbook |
| tb | 579.14 | K | Joback Method |
| tc | 775.17 | K | Joback Method |
| tf | 342.03 | K | Joback Method |
| vc | 0.633 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 411.13 | J/mol×K | 579.14 | Joback Method |
| cpg | 425.68 | J/mol×K | 611.81 | Joback Method |
| cpg | 439.54 | J/mol×K | 644.48 | Joback Method |
| cpg | 452.71 | J/mol×K | 677.16 | Joback Method |
| cpg | 465.22 | J/mol×K | 709.83 | Joback Method |
| cpg | 477.07 | J/mol×K | 742.50 | Joback Method |
| cpg | 488.27 | J/mol×K | 775.17 | Joback Method |

# Sources

| | |
|---|---|
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=R497004&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 |
| **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 |