

Nitric acid, nonyl ester

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|-----------------------------|---|
| Other names: | n-Nonyl nitrate Nonyl nitrate |
| Inchi: | InChI=1S/C9H19NO3/c1-2-3-4-5-6-7-8-9-13-10(11)12/h2-9H2,1H3 |
| InchiKey: | CMNNRVWVNGXINV-UHFFFAOYSA-N |
| Formula: | C9H19NO3 |
| SMILES: | CCCCCCCCCO[N+](=O)[O-] |
| Mol. weight [g/mol]: | 189.25 |
| CAS: | 20633-13-0 |

Physical Properties

| Property code | Value | Unit | Source |
|---------------|---------|---------|----------------|
| gf | -44.55 | kJ/mol | Joback Method |
| hf | -372.07 | kJ/mol | Joback Method |
| hfus | 31.61 | kJ/mol | Joback Method |
| hvap | 54.63 | kJ/mol | Joback Method |
| log10ws | -3.75 | | Crippen Method |
| logp | 2.945 | | Crippen Method |
| mcvol | 160.960 | ml/mol | McGowan Method |
| pc | 2295.91 | kPa | Joback Method |
| rinpol | 1232.00 | | NIST Webbook |
| rinpol | 1310.00 | | NIST Webbook |
| rinpol | 1232.00 | | NIST Webbook |
| tb | 579.58 | K | Joback Method |
| tc | 771.84 | K | Joback Method |
| tf | 357.03 | K | Joback Method |
| vc | 0.639 | m3/kmol | Joback Method |

Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---------------|--------|---------|-----------------|---------------|
| cpg | 410.75 | J/molxK | 579.58 | Joback Method |
| cpg | 424.97 | J/molxK | 611.62 | Joback Method |
| cpg | 438.53 | J/molxK | 643.67 | Joback Method |
| cpg | 451.44 | J/molxK | 675.71 | Joback Method |

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|-----|--------|---------|--------|---------------|
| cpg | 463.72 | J/mol×K | 707.75 | Joback Method |
| cpg | 475.37 | J/mol×K | 739.79 | Joback Method |
| cpg | 486.41 | J/mol×K | 771.84 | Joback Method |

Sources

| | |
|------------------------|---|
| McGowan Method: | http://link.springer.com/article/10.1007/BF02311772 |
| NIST Webbook: | http://webbook.nist.gov/cgi/cbook.cgi?ID=C20633130&Units=SI |
| Crippen Method: | http://pubs.acs.org/doi/abs/10.1021/ci9903071 |
| Crippen Method: | https://www.cheméo.com/doc/models/crippen_log10ws |
| Joback Method: | https://en.wikipedia.org/wiki/Joback_method |

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 |
| mvol: | 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 |

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