# Nitrogen oxide cation

**Inchi:** InChI=1S/NO2/c2-1-3/q+1
**InchiKey:** OMBRFUXPXNIUCZ-UHFFFAOYSA-N
**Formula:** N2O+
**SMILES:** O=[N+]=O
**Mol. weight [g/mol]:** 44.01
**CAS:** 12269-46-4

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 37.05 | kJ/mol | Joback Method |
| hf | 1.72 | kJ/mol | Joback Method |
| hfus | 8.80 | kJ/mol | Joback Method |
| hvap | 32.04 | kJ/mol | Joback Method |
| log10ws | 3.81 | | Crippen Method |
| logp | -0.414 | | Crippen Method |
| mcvol | 26.130 | ml/mol | McGowan Method |
| pc | 7406.07 | kPa | Joback Method |
| tb | 350.54 | K | Joback Method |
| tc | 561.53 | K | Joback Method |
| tf | 249.74 | K | Joback Method |
| vc | 0.108 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 33.13 | J/mol×K | 350.54 | Joback Method |
| cpg | 35.27 | J/mol×K | 385.70 | Joback Method |
| cpg | 37.11 | J/mol×K | 420.87 | Joback Method |
| cpg | 38.66 | J/mol×K | 456.03 | Joback Method |
| cpg | 39.96 | J/mol×K | 491.20 | Joback Method |
| cpg | 41.04 | J/mol×K | 526.36 | Joback Method |
| cpg | 41.93 | J/mol×K | 561.53 | Joback Method |

# Sources

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|---|---|
| **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 |
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=C12269464&Units=SI |

# 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 |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |