# 3,4-Dimethoxy-«beta»-nitrostyrene

**Other names:** Ethylene, 1-[3,4-(dimethoxy)phenyl]-2-nitro-
**Inchi:** InChI=1S/C10H11NO4/c1-14-9-4-3-8(5-6-11(12)13)7-10(9)15-2/h3-7H,1-2H3/b6-5+
**InchiKey:** SYJMYDMKPSZMSB-AATRIKPKSA-N
**Formula:** C10H11NO4
**SMILES:** COc1ccc(C=C[N+](=O)[O-])cc1OC
**Mol. weight [g/mol]:** 209.20
**CAS:** 4230-93-7

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 32.24 | kJ/mol | Joback Method |
| hf | -194.12 | kJ/mol | Joback Method |
| hfus | 28.86 | kJ/mol | Joback Method |
| hvap | 62.82 | kJ/mol | Joback Method |
| log10ws | -3.11 | | Crippen Method |
| logp | 1.951 | | Crippen Method |
| mcvol | 152.860 | ml/mol | McGowan Method |
| pc | 2931.34 | kPa | Joback Method |
| tb | 665.68 | K | Joback Method |
| tc | 904.06 | K | Joback Method |
| tf | 436.91 | K | Joback Method |
| vc | 0.586 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 383.02 | J/mol×K | 665.68 | Joback Method |
| cpg | 395.61 | J/mol×K | 705.41 | Joback Method |
| cpg | 407.33 | J/mol×K | 745.14 | Joback Method |
| cpg | 418.22 | J/mol×K | 784.87 | Joback Method |
| cpg | 428.29 | J/mol×K | 824.60 | Joback Method |
| cpg | 437.54 | J/mol×K | 864.33 | Joback Method |
| cpg | 446.01 | J/mol×K | 904.06 | 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=C4230937&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 |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |