# 1,2-Diaminopropane

**Inchi:** InChI=1S/C3H10N2/c1-3(5)2-4/h3H,2,4-5H2,1H3
**InchiKey:** AOHJOMMDDJHIJH-UHFFFAOYSA-N
**Formula:** C3H10N2
**SMILES:** CC(N)CN
**Mol. weight [g/mol]:** 74.12
**CAS:** 10424-38-1

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 104.84 | kJ/mol | Joback Method |
| hf | -53.68 ± 0.46 | kJ/mol | NIST Webbook |
| hfus | 10.40 | kJ/mol | Joback Method |
| hvap | 44.12 ± 0.21 | kJ/mol | NIST Webbook |
| log10ws | -0.06 | | Crippen Method |
| logp | -0.708 | | Crippen Method |
| mcvol | 73.090 | ml/mol | McGowan Method |
| pc | 5220.69 | kPa | Joback Method |
| tb | 392.70 | K | NIST Webbook |
| tc | 616.86 | K | Joback Method |
| tf | 275.09 | K | Joback Method |
| vc | 0.256 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 148.34 | J/mol×K | 412.66 | Joback Method |
| cpg | 156.74 | J/mol×K | 446.69 | Joback Method |
| cpg | 164.75 | J/mol×K | 480.73 | Joback Method |
| cpg | 172.39 | J/mol×K | 514.76 | Joback Method |
| cpg | 179.66 | J/mol×K | 548.79 | Joback Method |
| cpg | 186.57 | J/mol×K | 582.83 | Joback Method |
| cpg | 193.14 | J/mol×K | 616.86 | Joback Method |

# Sources

| | |
|---|---|
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=C10424381&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 |
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |

# 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 |