# Hexafluoromethanediamine

**Other names:** Bis(difluoroamino)difluoromethane
**Inchi:** InChI=1S/CF6N2/c2-1(3,8(4)5)9(6)7
**InchiKey:** OLOSSWPNZKRPRU-UHFFFAOYSA-N
**Formula:** CF6N2
**SMILES:** FN(F)C(F)(F)N(F)F
**Mol. weight [g/mol]:** 154.01
**CAS:** 4394-93-8

# Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -986.92 | kJ/mol | Joback Method |
| hf | -455.30 ± 4.00 | kJ/mol | NIST Webbook |
| hfus | 15.45 | kJ/mol | Joback Method |
| hvap | 15.71 | kJ/mol | Joback Method |
| log10ws | -2.06 | | Crippen Method |
| logp | 1.679 | | Crippen Method |
| mcvol | 55.530 | ml/mol | McGowan Method |
| pc | 4062.13 | kPa | Joback Method |
| tb | 239.55 | K | Joback Method |
| tc | 354.43 | K | Joback Method |
| tf | 171.93 | K | Joback Method |
| vc | 0.225 | m3/kmol | Joback Method |

# Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 95.10 | J/mol×K | 239.55 | Joback Method |
| cpg | 101.13 | J/mol×K | 258.70 | Joback Method |
| cpg | 106.87 | J/mol×K | 277.84 | Joback Method |
| cpg | 112.34 | J/mol×K | 296.99 | Joback Method |
| cpg | 117.54 | J/mol×K | 316.13 | Joback Method |
| cpg | 122.49 | J/mol×K | 335.28 | Joback Method |
| cpg | 127.18 | J/mol×K | 354.43 | Joback Method |

# Sources

| | |
|---|---|
| **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=C4394938&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 |