# 11H-Benzo[a]fluoren-11-one

**Other names:** 11H-Benzo[a]fluorene-11-one
11-benzo[a]fluorenone
1,2-Benzofluorenone
**Inchi:** InChI=1S/C17H10O/c18-17-15-8-4-3-7-13(15)14-10-9-11-5-1-2-6-12(11)16(14)17/h1-10H
**InchiKey:** RNICURKFVSAHLQ-UHFFFAOYSA-N
**Formula:** C17H10O
**SMILES:** O=C1c2ccccc2-c2ccc3ccccc3c21
**Mol. weight [g/mol]:** 230.26
**CAS:** 479-79-8

# Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 364.91 | kJ/mol | Joback Method |
| hf | 203.27 | kJ/mol | Joback Method |
| hfus | 24.49 | kJ/mol | Joback Method |
| hvap | 65.74 | kJ/mol | Joback Method |
| log10ws | -6.08 | | Crippen Method |
| logp | 4.051 | | Crippen Method |
| mcvol | 174.120 | ml/mol | McGowan Method |
| pc | 2953.69 | kPa | Joback Method |
| rinpol | 386.04 | | NIST Webbook |
| rinpol | 386.13 | | NIST Webbook |
| rinpol | 2252.00 | | NIST Webbook |
| rinpol | 386.41 | | NIST Webbook |
| tb | 746.33 | K | Joback Method |
| tc | 1015.64 | K | Joback Method |
| tf | 501.89 | K | Joback Method |
| vc | 0.674 | m3/kmol | Joback Method |

# Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 461.25 | J/mol×K | 746.33 | Joback Method |
| cpg | 474.99 | J/mol×K | 791.21 | Joback Method |

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|---|---|---|---|---|
| cpg | 487.69 | J/mol×K | 836.10 | Joback Method |
| cpg | 499.53 | J/mol×K | 880.98 | Joback Method |
| cpg | 510.68 | J/mol×K | 925.87 | Joback Method |
| cpg | 521.33 | J/mol×K | 970.75 | Joback Method |
| cpg | 531.63 | J/mol×K | 1015.64 | Joback Method |

# Sources

**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=C479798&Units=SI
**Crippen Method:** http://pubs.acs.org/doi/abs/10.1021/ci990307l

# 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
**mcvol:** 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