# Anthracene-maleic anhydride Diels-Alder adduct

**Other names:** Anthracene, 2,5-furandione adduct
Anthracene,maleic anhydride adduct
endo-9,10-(«alpha»,«beta»-Succinic anhydride)anthracene
9,10(3',4')-Furanoanthracene-12,14-dione
9,10-Dihydroanthraceno-9,10-endo-«alpha»,«beta»-succinic anhydride
9,10-Ethanoanthracene-11,12-dicarboxylic anhydride

**Inchi:** InChI=1S/C18H12O3/c19-17-15-13-9-5-1-2-6-10(9)14(16(15)18(20)21-17)12-8-4-3-7-11(

**InchiKey:** PSKVQQJLLWSBFV-UHFFFAOYSA-N

**Formula:** C18H12O3

**SMILES:** O=C1OC(=O)C2C3c4ccccc4C(c4ccccc43)C12

**Mol. weight [g/mol]:** 276.29

**CAS:** 5443-16-3

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| chs | -8380.00 ± 5.90 | kJ/mol | NIST Webbook |
| gf | 173.68 | kJ/mol | Joback Method |
| hf | -161.75 | kJ/mol | Joback Method |
| hfs | -418.20 ± 6.40 | kJ/mol | NIST Webbook |
| hfus | 36.35 | kJ/mol | Joback Method |
| hvap | 73.63 | kJ/mol | Joback Method |
| log10ws | -3.46 | | Crippen Method |
| logp | 2.593 | | Crippen Method |
| mcvol | 193.390 | ml/mol | McGowan Method |
| pc | 2640.67 | kPa | Joback Method |
| tb | 844.16 | K | Joback Method |
| tc | 1114.96 | K | Joback Method |
| tf | 590.13 | K | Joback Method |
| vc | 0.749 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 615.70 | J/mol×K | 844.16 | Joback Method |

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|---|---|---|---|---|
| cpg | 631.27 | J/mol×K | 889.29 | Joback Method |
| cpg | 645.69 | J/mol×K | 934.43 | Joback Method |
| cpg | 659.12 | J/mol×K | 979.56 | Joback Method |
| cpg | 671.74 | J/mol×K | 1024.69 | Joback Method |
| cpg | 683.70 | J/mol×K | 1069.82 | Joback Method |
| cpg | 695.17 | J/mol×K | 1114.96 | 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=C5443163&Units=SI |

# Legend

| | |
|---|---|
| **chs:** | Standard solid enthalpy of combustion |
| **cpg:** | Ideal gas heat capacity |
| **gf:** | Standard Gibbs free energy of formation |
| **hf:** | Enthalpy of formation at standard conditions |
| **hfs:** | Solid phase 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 |