

# Anthracene, 9,10-diethyl-9,10-dihydro-

|                             |   |
|-----------------------------|---|
| <b>Other names:</b>         | 9,10-diethyl-9,10-dihydroanthracene   |
| <b>Inchi:</b>               | InChI=1S/C18H20/c1-3-13-15-9-5-7-11-17(15)14(4-2)18-12-8-6-10-16(13)18/h5-14H,3-4 |
| <b>InchiKey:</b>            | ALGJBWINEDRYFU-UHFFFAOYSA-N   |
| <b>Formula:</b>             | C18H20  |
| <b>SMILES:</b>              | CCC1c2ccccc2C(CC)c2ccccc21  |
| <b>Mol. weight [g/mol]:</b> | 236.35  |
| <b>CAS:</b>                 | 46868-29-5  |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | 371.38  | kJ/mol               | Joback Method  |
| hf            | 93.89   | kJ/mol               | Joback Method  |
| hfus          | 30.99   | kJ/mol               | Joback Method  |
| hvap          | 60.97   | kJ/mol               | Joback Method  |
| log10ws       | -5.52   |                      | Crippen Method |
| logp          | 5.084   |                      | Crippen Method |
| mcvol         | 206.100 | ml/mol               | McGowan Method |
| pc            | 1989.43 | kPa                  | Joback Method  |
| tb            | 672.36  | K                    | Joback Method  |
| tc            | 903.37  | K                    | Joback Method  |
| tf            | 387.72  | K                    | Joback Method  |
| vc            | 0.791   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 562.22    | J/molxK | 672.36          | Joback Method |
| cpg           | 645.32    | J/molxK | 864.86          | Joback Method |
| cpg           | 630.91    | J/molxK | 826.36          | Joback Method |
| cpg           | 615.51    | J/molxK | 787.86          | Joback Method |
| cpg           | 598.99    | J/molxK | 749.36          | Joback Method |
| cpg           | 581.27    | J/molxK | 710.86          | Joback Method |
| cpg           | 658.82    | J/molxK | 903.37          | Joback Method |
| dvisc         | 0.0005198 | Paxs    | 672.36          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0005814 | Paxs | 624.92 | Joback Method |
| dvisc | 0.0006625 | Paxs | 577.48 | Joback Method |
| dvisc | 0.0007726 | Paxs | 530.04 | Joback Method |
| dvisc | 0.0009288 | Paxs | 482.60 | Joback Method |
| dvisc | 0.0011623 | Paxs | 435.16 | Joback Method |
| dvisc | 0.0015366 | Paxs | 387.72 | Joback Method |

## Sources

|                        |   |
|------------------------|---|
| <b>NIST Webbook:</b>   | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C46868295&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C46868295&amp;Units=SI</a> |
| <b>Crippen Method:</b> | <a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>                                     |
| <b>Crippen Method:</b> | <a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>                             |
| <b>Joback Method:</b>  | <a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>   |
| <b>McGowan Method:</b> | <a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>                         |

## Legend

|                            |   |
|----------------------------|---|
| <b>cp<sub>g</sub>:</b>     | Ideal gas heat capacity                         |
| <b>dvisc:</b>              | Dynamic viscosity                               |
| <b>gf:</b>                 | Standard Gibbs free energy of formation         |
| <b>hf:</b>                 | Enthalpy of formation at standard conditions    |
| <b>hfus:</b>               | Enthalpy of fusion at standard conditions       |
| <b>h<sub>vap</sub>:</b>    | Enthalpy of vaporization at standard conditions |
| <b>log<sub>10</sub>ws:</b> | Log <sub>10</sub> of Water solubility in mol/l  |
| <b>log<sub>p</sub>:</b>    | Octanol/Water partition coefficient             |
| <b>mcvol:</b>              | McGowan's characteristic volume                 |
| <b>pc:</b>                 | Critical Pressure                               |
| <b>tb:</b>                 | Normal Boiling Point Temperature                |
| <b>tc:</b>                 | Critical Temperature                            |
| <b>tf:</b>                 | Normal melting (fusion) point                   |
| <b>vc:</b>                 | Critical Volume                                 |

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