

# 17«alpha»-ethynylestradiol, 3-formate

**Inchi:** InChI=1S/C21H24O3/c1-3-21(23)11-9-19-18-6-4-14-12-15(24-13-22)5-7-16(14)17(18)8-10  
**InchiKey:** PJRWMJBAAOIMHI-UHFFFAOYSA-N  
**Formula:** C21H24O3  
**SMILES:** C#CC1(O)CCC2C3CCc4cc(OC=O)ccc4C3CCC21C  
**Mol. weight [g/mol]:** 324.41

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | 232.47  | kJ/mol  | Joback Method  |
| hf            | -145.43 | kJ/mol  | Joback Method  |
| hfus          | 33.70   | kJ/mol  | Joback Method  |
| hvap          | 88.77   | kJ/mol  | Joback Method  |
| log10ws       | -5.25   |         | Crippen Method |
| logp          | 3.442   |         | Crippen Method |
| mcvol         | 255.120 | ml/mol  | McGowan Method |
| pc            | 2119.73 | kPa     | Joback Method  |
| rinpol        | 2387.00 |         | NIST Webbook   |
| rinpol        | 2387.00 |         | NIST Webbook   |
| tb            | 889.80  | K       | Joback Method  |
| tc            | 1125.71 | K       | Joback Method  |
| tf            | 636.01  | K       | Joback Method  |
| vc            | 0.969   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value   | Unit    | Temperature [K] | Source        |
|---------------|---------|---------|-----------------|---------------|
| cpg           | 855.56  | J/mol×K | 889.80          | Joback Method |
| cpg           | 877.50  | J/mol×K | 929.12          | Joback Method |
| cpg           | 900.17  | J/mol×K | 968.44          | Joback Method |
| cpg           | 923.94  | J/mol×K | 1007.76         | Joback Method |
| cpg           | 949.15  | J/mol×K | 1047.08         | Joback Method |
| cpg           | 976.16  | J/mol×K | 1086.39         | Joback Method |
| cpg           | 1005.30 | J/mol×K | 1125.71         | Joback Method |

# Sources

|                        |                                                                                                                                           |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| <b>NIST Webbook:</b>   | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=U368386&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U368386&amp;Units=SI</a> |
| <b>Crippen Method:</b> | <a href="http://pubs.acs.org/doi/abs/10.1021/ci990307I">http://pubs.acs.org/doi/abs/10.1021/ci990307I</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>cpg:</b>     | Ideal gas heat capacity                         |
| <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>hvap:</b>    | Enthalpy of vaporization at standard conditions |
| <b>log10ws:</b> | Log10 of Water solubility in mol/l              |
| <b>logp:</b>    | Octanol/Water partition coefficient             |
| <b>mcvol:</b>   | McGowan's characteristic volume                 |
| <b>pc:</b>      | Critical Pressure                               |
| <b>rlnpol:</b>  | Non-polar retention indices                     |
| <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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