# Fumaric acid, di(naphth-2-yl) ester

**Inchi:** InChI=1S/C24H16O4/c25-23(27-21-11-9-17-5-1-3-7-19(17)15-21)13-14-24(26)28-22-12-
**InchiKey:** OQTWKMMWTVEVPX-BUHFOSPRSA-N
**Formula:** C24H16O4
**SMILES:** O=C(C=CC(=O)Oc1ccc2ccccc2c1)Oc1ccc2ccccc2c1
**Mol. weight [g/mol]:** 368.38

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 182.44 | kJ/mol | Joback Method |
| hf | -78.81 | kJ/mol | Joback Method |
| hfus | 45.03 | kJ/mol | Joback Method |
| hvap | 96.44 | kJ/mol | Joback Method |
| log10ws | -7.21 | | Crippen Method |
| logp | 5.060 | | Crippen Method |
| mcvol | 273.160 | ml/mol | McGowan Method |
| pc | 1964.82 | kPa | Joback Method |
| rinpol | 3347.00 | | NIST Webbook |
| tb | 1006.54 | K | Joback Method |
| tc | 1265.54 | K | Joback Method |
| tf | 642.76 | K | Joback Method |
| vc | 1.036 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 819.18 | J/mol×K | 1006.54 | Joback Method |
| cpg | 874.90 | J/mol×K | 1222.37 | Joback Method |
| cpg | 864.43 | J/mol×K | 1179.21 | Joback Method |
| cpg | 853.79 | J/mol×K | 1136.04 | Joback Method |
| cpg | 842.82 | J/mol×K | 1092.87 | Joback Method |
| cpg | 831.34 | J/mol×K | 1049.71 | Joback Method |
| cpg | 885.39 | J/mol×K | 1265.54 | Joback Method |
| dvisc | 0.0001272 | Pa×s | 1006.54 | Joback Method |
| dvisc | 0.0001506 | Pa×s | 945.91 | Joback Method |

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|---|---|---|---|---|
| dvisc | 0.0001825 | Pa×s | 885.28 | Joback Method |
| dvisc | 0.0002274 | Pa×s | 824.65 | Joback Method |
| dvisc | 0.0002936 | Pa×s | 764.02 | Joback Method |
| dvisc | 0.0003960 | Pa×s | 703.39 | Joback Method |
| dvisc | 0.0005651 | Pa×s | 642.76 | 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=U405839&Units=SI |

# Legend

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|---|---|
| **cpg:** | Ideal gas heat capacity |
| **dvisc:** | Dynamic viscosity |
| **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 |