# «gamma»-Sitosterol

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|---|---|
| **Other names:** | Stigmast-5-en-3-ol, (3«beta»,24S)-<br>Stigmast-5-en-3«beta»-ol, (24S)-<br>Clionasterol<br>Fucosterol, «beta»-dihydro-<br>24«beta»-Ethyl-5-cholesten-3«beta»-ol<br>«beta»-Dihydrofucosterol<br>22,23-Dihydroporiferasterol<br>24S-Ethylcholest-5-en-3«beta»-ol<br>24«beta»-Ethylcholesterol<br>(3«beta»,24S)-stigmast-5-en-3-ol |
| **Inchi:** | InChI=1S/C29H50O/c1-7-21(19(2)3)9-8-20(4)25-12-13-26-24-11-10-22-18-23(30)14-16-2 |
| **InchiKey:** | KZJWDPNRJALLNS-SEIBWPITSA-N |
| **Formula:** | C29H50O |
| **SMILES:** | CCC(CCC(C)C1CCC2C3CC=C4CC(O)CCC4(C)C3CCC12C)C(C)C |
| **Mol. weight [g/mol]:** | 414.71 |
| **CAS:** | 83-47-6 |

# Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 217.88 | kJ/mol | Joback Method |
| hf | -533.79 | kJ/mol | Joback Method |
| hfus | 37.87 | kJ/mol | Joback Method |
| hvap | 93.90 | kJ/mol | Joback Method |
| log10ws | -8.59 | | Crippen Method |
| logp | 8.025 | | Crippen Method |
| mcvol | 377.600 | ml/mol | McGowan Method |
| pc | 959.10 | kPa | Joback Method |
| rinpol | 3290.00 | | NIST Webbook |
| rinpol | 3351.30 | | NIST Webbook |
| rinpol | 3351.30 | | NIST Webbook |
| tb | 992.70 | K | Joback Method |
| tc | 1218.50 | K | Joback Method |
| tf | 534.93 | K | Joback Method |
| vc | 1.427 | m3/kmol | Joback Method |

# Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 1457.53 | J/mol×K | 992.70 | Joback Method |
| cpg | 1490.57 | J/mol×K | 1030.33 | Joback Method |
| cpg | 1524.41 | J/mol×K | 1067.97 | Joback Method |
| cpg | 1559.38 | J/mol×K | 1105.60 | Joback Method |
| cpg | 1595.82 | J/mol×K | 1143.23 | Joback Method |
| cpg | 1634.10 | J/mol×K | 1180.87 | Joback Method |
| cpg | 1674.54 | J/mol×K | 1218.50 | Joback Method |

# Sources

**McGowan Method:** http://link.springer.com/article/10.1007/BF02311772
**NIST Webbook:** http://webbook.nist.gov/cgi/cbook.cgi?ID=C83476&Units=SI
**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

# 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