# 5,8,11,14-Eicosatetraenoic acid, ethyl ester

**Other names:** 5,8,11,14-eicosatetraenoic acid, ethyl ester, (all-Z)-
**Inchi:** InChI=1S/C22H36O2/c1-3-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22(23)24-4-2
**InchiKey:** SNXPWYFWAZVIAU-GKFVBPDJSA-N
**Formula:** C22H36O2
**SMILES:** CCCCCC=CCC=CCC=CCC=CCCCC(=O)OCC
**Mol. weight [g/mol]:** 332.52
**CAS:** 95285-77-1

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 221.32 | kJ/mol | Joback Method |
| hf | -273.33 | kJ/mol | Joback Method |
| hfus | 56.33 | kJ/mol | Joback Method |
| hvap | 73.55 | kJ/mol | Joback Method |
| log10ws | -7.31 | | Crippen Method |
| logp | 6.695 | | Crippen Method |
| mcvol | 311.080 | ml/mol | McGowan Method |
| pc | 1056.88 | kPa | Joback Method |
| tb | 795.69 | K | Joback Method |
| tc | 983.56 | K | Joback Method |
| tf | 389.54 | K | Joback Method |
| vc | 1.212 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 933.00 | J/mol×K | 795.69 | Joback Method |
| cpg | 951.44 | J/mol×K | 827.00 | Joback Method |
| cpg | 969.02 | J/mol×K | 858.31 | Joback Method |
| cpg | 985.79 | J/mol×K | 889.62 | Joback Method |
| cpg | 1001.82 | J/mol×K | 920.94 | Joback Method |
| cpg | 1017.20 | J/mol×K | 952.25 | Joback Method |
| cpg | 1031.98 | J/mol×K | 983.56 | Joback Method |
| dvisc | 0.0010302 | Pa×s | 389.54 | Joback Method |

| | | | | |
|---|---|---|---|---|
| dvisc | 0.0003755 | Pa×s | 457.23 | Joback Method |
| dvisc | 0.0001776 | Pa×s | 524.92 | Joback Method |
| dvisc | 0.0000997 | Pa×s | 592.62 | Joback Method |
| dvisc | 0.0000630 | Pa×s | 660.31 | Joback Method |
| dvisc | 0.0000433 | Pa×s | 728.00 | Joback Method |
| dvisc | 0.0000318 | Pa×s | 795.69 | Joback Method |

# Sources

| | |
|---|---|
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |
| **Binary Diffusion Coefficients of Arachidonic Acid Ethyl Esters, cis-5,8,11,14,17-Eicosapentaenoic Acid Ethyl Esthers, and cis-4,7,10,13,16,19-Docosahexanenoic Acid Ethyl Esthers in Supercritical Carbon Dioxide:** | https://www.doi.org/10.1021/je060456h |
| **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=C95285771&Units=SI |

# Legend

| | |
|---|---|
| **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 |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |

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