# Icosa-5,8,11,14-tetraenoic acid icosyl ester, Z,Z,Z,Z

**Inchi:** InChI=1S/C40H72O2/c1-3-5-7-9-11-13-15-17-19-21-23-25-27-29-31-33-35-37-39-42-40(
**InchiKey:** GVQSBNGRZGAXTP-NBORNWBVSA-N
**Formula:** C40H72O2
**SMILES:** CCCCCC=CCC=CCC=CCC=CCCCC(=O)OCCCCCCCCCCCCCCCCCCCC
**Mol. weight [g/mol]:** 585.00

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 372.88 | kJ/mol | Joback Method |
| hf | -644.85 | kJ/mol | Joback Method |
| hfus | 102.95 | kJ/mol | Joback Method |
| hvap | 113.62 | kJ/mol | Joback Method |
| log10ws | -14.84 | | Crippen Method |
| logp | 13.717 | | Crippen Method |
| mcvol | 564.700 | ml/mol | McGowan Method |
| pc | 433.31 | kPa | Joback Method |
| rinpol | 4066.48 | | NIST Webbook |
| rinpol | 4066.48 | | NIST Webbook |
| tb | 1207.53 | K | Joback Method |
| tc | 1602.77 | K | Joback Method |
| tf | 592.40 | K | Joback Method |
| vc | 2.220 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 2124.37 | J/mol×K | 1207.53 | Joback Method |
| cpg | 2346.41 | J/mol×K | 1536.89 | Joback Method |
| cpg | 2299.72 | J/mol×K | 1471.02 | Joback Method |
| cpg | 2255.18 | J/mol×K | 1405.15 | Joback Method |
| cpg | 2211.78 | J/mol×K | 1339.28 | Joback Method |
| cpg | 2168.52 | J/mol×K | 1273.40 | Joback Method |
| cpg | 2396.28 | J/mol×K | 1602.77 | Joback Method |
| dvisc | 0.0000020 | Pa×s | 1207.53 | Joback Method |

| | | | | |
|---|---|---|---|---|
| dvisc | 0.0000028 | Pa×s | 1105.01 | Joback Method |
| dvisc | 0.0000042 | Pa×s | 1002.49 | Joback Method |
| dvisc | 0.0000069 | Pa×s | 899.96 | Joback Method |
| dvisc | 0.0000129 | Pa×s | 797.44 | Joback Method |
| dvisc | 0.0000289 | Pa×s | 694.92 | Joback Method |
| dvisc | 0.0000854 | Pa×s | 592.40 | Joback Method |

# Sources

| | |
|---|---|
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=R437324&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 |
| **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 |