# 1,2-Cyclohexanedicarboxylic acid, 2-ethoxyethyl octadecyl ester

**Inchi:** InChI=1S/C30H56O5/c1-3-5-6-7-8-9-10-11-12-13-14-15-16-17-18-21-24-34-29(31)27-22
**InchiKey:** ZSJQTPYPAMLGML-UHFFFAOYSA-N
**Formula:** C30H56O5
**SMILES:** CCCCCCCCCCCCCCCCCCOC(=O)C1CCCCC1C(=O)OCCOCC
**Mol. weight [g/mol]:** 496.76

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -354.38 | kJ/mol | Joback Method |
| hf | -1250.37 | kJ/mol | Joback Method |
| hfus | 73.12 | kJ/mol | Joback Method |
| hvap | 103.22 | kJ/mol | Joback Method |
| log10ws | -8.60 | | Crippen Method |
| logp | 8.177 | | Crippen Method |
| mcvol | 443.450 | ml/mol | McGowan Method |
| pc | 674.30 | kPa | Joback Method |
| rinpol | 3427.00 | | NIST Webbook |
| rinpol | 3427.00 | | NIST Webbook |
| tb | 1075.68 | K | Joback Method |
| tc | 1338.42 | K | Joback Method |
| tf | 597.55 | K | Joback Method |
| vc | 1.714 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 1633.90 | J/mol×K | 1075.68 | Joback Method |
| cpg | 1704.13 | J/mol×K | 1294.63 | Joback Method |
| cpg | 1695.75 | J/mol×K | 1250.84 | Joback Method |
| cpg | 1684.61 | J/mol×K | 1207.05 | Joback Method |
| cpg | 1670.64 | J/mol×K | 1163.26 | Joback Method |
| cpg | 1653.76 | J/mol×K | 1119.47 | Joback Method |
| cpg | 1709.81 | J/mol×K | 1338.42 | Joback Method |
| dvisc | 0.0000116 | Pa×s | 1075.68 | Joback Method |

| | | | | |
|---|---|---|---|---|
| dvisc | 0.0000155 | Pa×s | 995.99 | Joback Method |
| dvisc | 0.0000218 | Pa×s | 916.30 | Joback Method |
| dvisc | 0.0000325 | Pa×s | 836.61 | Joback Method |
| dvisc | 0.0000529 | Pa×s | 756.93 | Joback Method |
| dvisc | 0.0000966 | Pa×s | 677.24 | Joback Method |
| dvisc | 0.0002070 | Pa×s | 597.55 | Joback Method |

# Sources

| | |
|---|---|
| **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=U339919&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |

# 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 |

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