# Carbonic acid, dodecyl prop-1-en-2-yl ester

**Inchi:** InChI=1S/C16H30O3/c1-4-5-6-7-8-9-10-11-12-13-14-18-16(17)19-15(2)3/h2,4-14H2,1,3H
**InchiKey:** YNTFFRYKXYSRHC-UHFFFAOYSA-N
**Formula:** C16H30O3
**SMILES:** C=C(C)OC(=O)OCCCCCCCCCCCC
**Mol. weight [g/mol]:** 270.41

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -175.79 | kJ/mol | Joback Method |
| hf | -634.95 | kJ/mol | Joback Method |
| hfus | 38.58 | kJ/mol | Joback Method |
| hvap | 62.19 | kJ/mol | Joback Method |
| log10ws | -5.80 | | Crippen Method |
| logp | 5.594 | | Crippen Method |
| mcvol | 245.310 | ml/mol | McGowan Method |
| pc | 1394.37 | kPa | Joback Method |
| rinpol | 1791.00 | | NIST Webbook |
| rinpol | 1791.00 | | NIST Webbook |
| tb | 660.75 | K | Joback Method |
| tc | 832.43 | K | Joback Method |
| tf | 348.75 | K | Joback Method |
| vc | 0.956 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 683.07 | J/mol×K | 660.75 | Joback Method |
| cpg | 700.42 | J/mol×K | 689.36 | Joback Method |
| cpg | 717.01 | J/mol×K | 717.98 | Joback Method |
| cpg | 732.84 | J/mol×K | 746.59 | Joback Method |
| cpg | 747.94 | J/mol×K | 775.20 | Joback Method |
| cpg | 762.30 | J/mol×K | 803.81 | Joback Method |
| cpg | 775.94 | J/mol×K | 832.43 | Joback Method |

# Sources

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|---|---|
| **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=U382907&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |

# Legend

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|---|---|
| **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 |