# 10-Undecenoic acid, 4,4-dimethyloxazoline derivative

**Other names:** 10-Undecenoic acid, DMOX derivative
10-Undecenoic acid, 4,4-Dimethyloxazoline (DMOX) derivative
**Inchi:** InChI=1S/C15H27NO/c1-4-5-6-7-8-9-10-11-12-14-16-15(2,3)13-17-14/h4H,1,5-13H2,2-3
**InchiKey:** WMCSKOUEEYZGDK-UHFFFAOYSA-N
**Formula:** C15H27NO
**SMILES:** C=CCCCCCCCCC1=NC(C)(C)CO1
**Mol. weight [g/mol]:** 237.38

# Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 245.31 | kJ/mol | Joback Method |
| hf | -166.50 | kJ/mol | Joback Method |
| hfus | 34.91 | kJ/mol | Joback Method |
| hvap | 59.09 | kJ/mol | Joback Method |
| log10ws | -4.71 | | Crippen Method |
| logp | 4.500 | | Crippen Method |
| mcvol | 218.600 | ml/mol | McGowan Method |
| pc | 1768.38 | kPa | Joback Method |
| rinpol | 1614.50 | | NIST Webbook |
| rinpol | 1614.50 | | NIST Webbook |
| tb | 639.59 | K | Joback Method |
| tc | 838.33 | K | Joback Method |
| tf | 403.24 | K | Joback Method |
| vc | 0.852 | m3/kmol | Joback Method |

# Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 618.38 | J/mol×K | 639.59 | Joback Method |
| cpg | 637.96 | J/mol×K | 672.71 | Joback Method |
| cpg | 656.59 | J/mol×K | 705.84 | Joback Method |
| cpg | 674.35 | J/mol×K | 738.96 | Joback Method |
| cpg | 691.35 | J/mol×K | 772.08 | Joback Method |
| cpg | 707.68 | J/mol×K | 805.20 | Joback Method |

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|---|---|---|---|---|
| cpg | 723.43 | J/mol×K | 838.33 | 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=U333568&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 |