# Benzoic acid, 4-(dodecyloxy)-

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|---|---|
| **Other names:** | Benzoic acid, p-(dodecyloxy)- |
| | p-(Dodecyloxy)benzoic acid |
| | para-Dodecyloxybenzoic acid |
| | 4-n-Dodecyloxybenzoic acid |
| | 4-(dodecyloxy)benzoic acid |
| **Inchi:** | InChI=1S/C19H30O3/c1-2-3-4-5-6-7-8-9-10-11-16-22-18-14-12-17(13-15-18)19(20)21/h1 |
| **InchiKey:** | ALQLYJHDBAKLBB-UHFFFAOYSA-N |
| **Formula:** | C19H30O3 |
| **SMILES:** | CCCCCCCCCCCCOc1ccc(C(=O)O)cc1 |
| **Mol. weight [g/mol]:** | 306.44 |
| **CAS:** | 2312-15-4 |

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -158.86 | kJ/mol | Joback Method |
| hf | -607.46 | kJ/mol | Joback Method |
| hfus | 45.49 | kJ/mol | Joback Method |
| hvap | 86.66 | kJ/mol | Joback Method |
| log10ws | -6.26 | | Crippen Method |
| logp | 5.684 | | Crippen Method |
| mcvol | 268.120 | ml/mol | McGowan Method |
| pc | 1493.04 | kPa | Joback Method |
| tb | 834.25 | K | Joback Method |
| tc | 1027.56 | K | Joback Method |
| tf | 475.81 | K | Joback Method |
| vc | 1.034 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 835.00 | J/mol×K | 834.25 | Joback Method |
| cpg | 850.33 | J/mol×K | 866.47 | Joback Method |
| cpg | 864.72 | J/mol×K | 898.69 | Joback Method |
| cpg | 878.20 | J/mol×K | 930.90 | Joback Method |

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|---|---|---|---|---|
| cpg | 890.80 | J/mol×K | 963.12 | Joback Method |
| cpg | 902.55 | J/mol×K | 995.34 | Joback Method |
| cpg | 913.49 | J/mol×K | 1027.56 | Joback Method |
| dvisc | 0.0006119 | Pa×s | 475.81 | Joback Method |
| dvisc | 0.0002302 | Pa×s | 535.55 | Joback Method |
| dvisc | 0.0001054 | Pa×s | 595.29 | Joback Method |
| dvisc | 0.0000556 | Pa×s | 655.03 | Joback Method |
| dvisc | 0.0000327 | Pa×s | 714.77 | Joback Method |
| dvisc | 0.0000208 | Pa×s | 774.51 | Joback Method |
| dvisc | 0.0000142 | Pa×s | 834.25 | Joback Method |

# Sources

**NIST Webbook:** http://webbook.nist.gov/cgi/cbook.cgi?ID=C2312154&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
**McGowan Method:** http://link.springer.com/article/10.1007/BF02311772

# 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