

Benzoic acid, 3-hydroxypropyl ester

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|-----------------------------|---|
| Inchi: | InChI=1S/C10H12O3/c11-7-4-8-13-10(12)9-5-2-1-3-6-9/h1-3,5-6,11H,4,7-8H2 |
| InchiKey: | BZISNWGGPWSXTK-UHFFFAOYSA-N |
| Formula: | C10H12O3 |
| SMILES: | O=C(OCCCO)c1ccccc1 |
| Mol. weight [g/mol]: | 180.20 |

Physical Properties

| Property code | Value | Unit | Source |
|---------------|---------|----------------------|----------------|
| gf | -225.01 | kJ/mol | Joback Method |
| hf | -410.23 | kJ/mol | Joback Method |
| hfus | 22.57 | kJ/mol | Joback Method |
| hvap | 65.97 | kJ/mol | Joback Method |
| log10ws | -1.81 | | Crippen Method |
| logp | 1.226 | | Crippen Method |
| mvol | 141.310 | ml/mol | McGowan Method |
| pc | 3423.86 | kPa | Joback Method |
| rinpol | 1534.00 | | NIST Webbook |
| rinpol | 1534.00 | | NIST Webbook |
| tb | 623.35 | K | Joback Method |
| tc | 821.89 | K | Joback Method |
| tf | 361.86 | K | Joback Method |
| vc | 0.530 | m ³ /kmol | Joback Method |

Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---------------|-----------|---------|-----------------|---------------|
| cpg | 351.28 | J/molxK | 623.35 | Joback Method |
| cpg | 400.65 | J/molxK | 788.80 | Joback Method |
| cpg | 392.00 | J/molxK | 755.71 | Joback Method |
| cpg | 382.76 | J/molxK | 722.62 | Joback Method |
| cpg | 372.90 | J/molxK | 689.53 | Joback Method |
| cpg | 362.42 | J/molxK | 656.44 | Joback Method |
| cpg | 408.71 | J/molxK | 821.89 | Joback Method |
| dvisc | 0.0000688 | Paxs | 623.35 | Joback Method |

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|-------|-----------|------|--------|---------------|
| dvisc | 0.0001033 | Paxs | 579.77 | Joback Method |
| dvisc | 0.0001658 | Paxs | 536.19 | Joback Method |
| dvisc | 0.0002893 | Paxs | 492.61 | Joback Method |
| dvisc | 0.0005624 | Paxs | 449.02 | Joback Method |
| dvisc | 0.0012611 | Paxs | 405.44 | Joback Method |
| dvisc | 0.0034351 | Paxs | 361.86 | 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=R323116&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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<https://www.chemeo.com/cid/64-728-3/Benzoic-acid-3-hydroxypropyl-ester.pdf>

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