

Tetradecanoic acid, 2-hydroxyethyl ester

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|-----------------------------|---|
| Other names: | Myristic acid, 2-hydroxyethyl ester Ethylene glycol monomyristate Glycol myristate 2-Hydroxyethyl tetradecanoate 2-Hydroxyethyl myristate |
| Inchi: | InChI=1S/C16H32O3/c1-2-3-4-5-6-7-8-9-10-11-12-13-16(18)19-15-14-17/h17H,2-15H2,1 |
| InchiKey: | ABFWOTZXBYVPIF-UHFFFAOYSA-N |
| Formula: | C16H32O3 |
| SMILES: | CCCCCCCCCCCC(=O)OCCO |
| Mol. weight [g/mol]: | 272.42 |
| CAS: | 22122-18-5 |

Physical Properties

| Property code | Value | Unit | Source |
|---------------|---------|---------|----------------|
| gf | -286.90 | kJ/mol | Joback Method |
| hf | -770.60 | kJ/mol | Joback Method |
| hfus | 44.07 | kJ/mol | Joback Method |
| hvap | 77.05 | kJ/mol | Joback Method |
| log10ws | -4.65 | | Crippen Method |
| logp | 4.223 | | Crippen Method |
| mcvol | 249.610 | ml/mol | McGowan Method |
| pc | 1461.25 | kPa | Joback Method |
| rinpol | 2011.00 | | NIST Webbook |
| tb | 733.95 | K | Joback Method |
| tc | 904.77 | K | Joback Method |
| tf | 403.06 | K | Joback Method |
| vc | 0.975 | m3/kmol | Joback Method |

Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---------------|--------|---------|-----------------|---------------|
| cpg | 749.85 | J/molxK | 733.95 | Joback Method |
| cpg | 822.06 | J/molxK | 876.30 | Joback Method |
| cpg | 809.05 | J/molxK | 847.83 | Joback Method |

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|-------|-----------|---------|--------|---------------|
| cpg | 795.33 | J/molxK | 819.36 | Joback Method |
| cpg | 780.91 | J/molxK | 790.89 | Joback Method |
| cpg | 765.75 | J/molxK | 762.42 | Joback Method |
| cpg | 834.40 | J/molxK | 904.77 | Joback Method |
| dvisc | 0.0000256 | Paxs | 733.95 | Joback Method |
| dvisc | 0.0000395 | Paxs | 678.80 | Joback Method |
| dvisc | 0.0000656 | Paxs | 623.65 | Joback Method |
| dvisc | 0.0001205 | Paxs | 568.50 | Joback Method |
| dvisc | 0.0002520 | Paxs | 513.36 | Joback Method |
| dvisc | 0.0006295 | Paxs | 458.21 | Joback Method |
| dvisc | 0.0020202 | Paxs | 403.06 | Joback Method |

Sources

| | |
|------------------------|---|
| 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=C22122185&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 |
| 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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