

Sebacic acid, 2-ethylbutyl propyl ester

Inchi: InChI=1S/C19H36O4/c1-4-15-22-18(20)13-11-9-7-8-10-12-14-19(21)23-16-17(5-2)6-3/h1-4,11-14,18-21,23-24H,5-10,15-17,22H2
InchiKey: IEJMQFHCBUNGR-UHFFFAOYSA-N
Formula: C19H36O4
SMILES: CCCOC(=O)CCCCCCCCC(=O)OCC(CC)CC
Mol. weight [g/mol]: 328.49

Physical Properties

| Property code | Value | Unit | Source |
|---------------|---------|----------------------|----------------|
| gf | -361.18 | kJ/mol | Joback Method |
| hf | -930.37 | kJ/mol | Joback Method |
| hfus | 47.02 | kJ/mol | Joback Method |
| hvap | 75.81 | kJ/mol | Joback Method |
| log10ws | -5.26 | | Crippen Method |
| logp | 5.040 | | Crippen Method |
| mvol | 293.450 | ml/mol | McGowan Method |
| pc | 1155.35 | kPa | Joback Method |
| rinpol | 2254.00 | | NIST Webbook |
| rinpol | 2254.00 | | NIST Webbook |
| tb | 786.26 | K | Joback Method |
| tc | 968.16 | K | Joback Method |
| tf | 433.21 | K | Joback Method |
| vc | 1.141 | m ³ /kmol | Joback Method |

Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---------------|-----------|---------|-----------------|---------------|
| cpg | 909.39 | J/molxK | 786.26 | Joback Method |
| cpg | 989.26 | J/molxK | 937.85 | Joback Method |
| cpg | 975.21 | J/molxK | 907.53 | Joback Method |
| cpg | 960.22 | J/molxK | 877.21 | Joback Method |
| cpg | 944.26 | J/molxK | 846.89 | Joback Method |
| cpg | 927.32 | J/molxK | 816.58 | Joback Method |
| cpg | 1002.36 | J/molxK | 968.16 | Joback Method |
| dvisc | 0.0000565 | Paxs | 786.26 | Joback Method |

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|-------|-----------|------|--------|---------------|
| dvisc | 0.0000759 | Paxs | 727.42 | Joback Method |
| dvisc | 0.0001075 | Paxs | 668.58 | Joback Method |
| dvisc | 0.0001628 | Paxs | 609.74 | Joback Method |
| dvisc | 0.0002693 | Paxs | 550.89 | Joback Method |
| dvisc | 0.0005025 | Paxs | 492.05 | Joback Method |
| dvisc | 0.0011109 | Paxs | 433.21 | Joback Method |

Sources

| | |
|------------------------|---|
| Crippen Method: | http://pubs.acs.org/doi/abs/10.1021/ci9903071 |
| 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=U355513&Units=SI |

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/27-133-4/Sebacic-acid-2-ethylbutyl-propyl-ester.pdf>

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