

# (E)-4-Octen-1-yl 3-methylbutanoate

|                             |  |
|-----------------------------|--|
| <b>Inchi:</b>               | InChI=1S/C13H24O2/c1-4-5-6-7-8-9-10-15-13(14)11-12(2)3/h6-7,12H,4-5,8-11H2,1-3H3 |
| <b>InchiKey:</b>            | FONUJUCWDOZQDI-VOTSOKGWSA-N  |
| <b>Formula:</b>             | C13H24O2   |
| <b>SMILES:</b>              | CCCC=CCCCOC(=O)CC(C)C  |
| <b>Mol. weight [g/mol]:</b> | 212.33   |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | -97.56  | kJ/mol               | Joback Method  |
| hf            | -444.51 | kJ/mol               | Joback Method  |
| hfus          | 28.89   | kJ/mol               | Joback Method  |
| hvap          | 53.26   | kJ/mol               | Joback Method  |
| log10ws       | -3.74   |                      | Crippen Method |
| logp          | 3.712   |                      | Crippen Method |
| mcvol         | 197.170 | ml/mol               | McGowan Method |
| pc            | 1795.46 | kPa                  | Joback Method  |
| rinpol        | 1408.00 |                      | NIST Webbook   |
| rinpol        | 1408.00 |                      | NIST Webbook   |
| rinpol        | 1410.00 |                      | NIST Webbook   |
| tb            | 576.85  | K                    | Joback Method  |
| tc            | 755.04  | K                    | Joback Method  |
| tf            | 288.35  | K                    | Joback Method  |
| vc            | 0.761   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 496.13 | J/molxK | 576.85          | Joback Method |
| cpg           | 512.41 | J/molxK | 606.55          | Joback Method |
| cpg           | 527.97 | J/molxK | 636.25          | Joback Method |
| cpg           | 542.83 | J/molxK | 665.95          | Joback Method |
| cpg           | 557.00 | J/molxK | 695.64          | Joback Method |
| cpg           | 570.51 | J/molxK | 725.34          | Joback Method |
| cpg           | 583.37 | J/molxK | 755.04          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0037720 | Paxs | 288.35 | Joback Method |
| dvisc | 0.0014586 | Paxs | 336.43 | Joback Method |
| dvisc | 0.0007154 | Paxs | 384.52 | Joback Method |
| dvisc | 0.0004110 | Paxs | 432.60 | Joback Method |
| dvisc | 0.0002639 | Paxs | 480.68 | Joback Method |
| dvisc | 0.0001836 | Paxs | 528.77 | Joback Method |
| dvisc | 0.0001357 | Paxs | 576.85 | Joback Method |

## Sources

|                        |   |
|------------------------|---|
| <b>NIST Webbook:</b>   | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=R75731&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R75731&amp;Units=SI</a> |
| <b>Crippen Method:</b> | <a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>                               |
| <b>Crippen Method:</b> | <a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>                       |
| <b>Joback Method:</b>  | <a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>                                   |
| <b>McGowan Method:</b> | <a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>                   |

## Legend

|                 |   |
|-----------------|---|
| <b>cpg:</b>     | Ideal gas heat capacity                         |
| <b>dvisc:</b>   | Dynamic viscosity                               |
| <b>gf:</b>      | Standard Gibbs free energy of formation         |
| <b>hf:</b>      | Enthalpy of formation at standard conditions    |
| <b>hfus:</b>    | Enthalpy of fusion at standard conditions       |
| <b>hvap:</b>    | Enthalpy of vaporization at standard conditions |
| <b>log10ws:</b> | Log10 of Water solubility in mol/l              |
| <b>logp:</b>    | Octanol/Water partition coefficient             |
| <b>mvol:</b>    | McGowan's characteristic volume                 |
| <b>pc:</b>      | Critical Pressure                               |
| <b>rinpol:</b>  | Non-polar retention indices                     |
| <b>tb:</b>      | Normal Boiling Point Temperature                |
| <b>tc:</b>      | Critical Temperature                            |
| <b>tf:</b>      | Normal melting (fusion) point                   |
| <b>vc:</b>      | Critical Volume                                 |

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