

# Terephthalic acid, but-3-enyl isoheptyl ester

**Inchi:** InChI=1S/C18H24O4/c1-4-5-12-21-17(19)15-8-10-16(11-9-15)18(20)22-13-6-7-14(2)3/h4  
**InchiKey:** OSVOEMiyDBWRKS-UHFFFAOYSA-N  
**Formula:** C18H24O4  
**SMILES:** C=CCCOC(=O)c1ccc(C(=O)OCCCC(C)C)cc1  
**Mol. weight [g/mol]:** 304.38

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | -178.98 | kJ/mol               | Joback Method  |
| hf            | -559.24 | kJ/mol               | Joback Method  |
| hfus          | 36.80   | kJ/mol               | Joback Method  |
| hvap          | 75.85   | kJ/mol               | Joback Method  |
| log10ws       | -4.92   |                      | Crippen Method |
| logp          | 4.013   |                      | Crippen Method |
| mvol          | 251.300 | ml/mol               | McGowan Method |
| pc            | 1615.47 | kPa                  | Joback Method  |
| rinpol        | 2287.00 |                      | NIST Webbook   |
| rinpol        | 2287.00 |                      | NIST Webbook   |
| tb            | 791.72  | K                    | Joback Method  |
| tc            | 996.07  | K                    | Joback Method  |
| tf            | 459.12  | K                    | Joback Method  |
| vc            | 0.959   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 735.60    | J/molxK | 791.72          | Joback Method |
| cpg           | 750.96    | J/molxK | 825.78          | Joback Method |
| cpg           | 765.27    | J/molxK | 859.84          | Joback Method |
| cpg           | 778.54    | J/molxK | 893.90          | Joback Method |
| cpg           | 790.79    | J/molxK | 927.95          | Joback Method |
| cpg           | 802.05    | J/molxK | 962.01          | Joback Method |
| cpg           | 812.34    | J/molxK | 996.07          | Joback Method |
| dvisc         | 0.0008308 | Paxs    | 459.12          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0004413 | Paxs | 514.55 | Joback Method |
| dvisc | 0.0002651 | Paxs | 569.99 | Joback Method |
| dvisc | 0.0001743 | Paxs | 625.42 | Joback Method |
| dvisc | 0.0001227 | Paxs | 680.85 | Joback Method |
| dvisc | 0.0000910 | Paxs | 736.29 | Joback Method |
| dvisc | 0.0000705 | Paxs | 791.72 | Joback Method |

## Sources

|                        |   |
|------------------------|---|
| <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>                     |
| <b>NIST Webbook:</b>   | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=U356335&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U356335&amp;Units=SI</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>mcvol:</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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