

# Phthalic acid, ethyl 3-iodobenzyl ester

|                             |   |
|-----------------------------|---|
| <b>Inchi:</b>               | InChI=1S/C17H15IO4/c1-2-21-16(19)14-8-3-4-9-15(14)17(20)22-11-12-6-5-7-13(18)10-1 |
| <b>InchiKey:</b>            | JNWWVDGCAPSTEC-UHFFFAOYSA-N   |
| <b>Formula:</b>             | C17H15IO4   |
| <b>SMILES:</b>              | CCOC(=O)c1cccc1C(=O)OCc1cccc(I)c1   |
| <b>Mol. weight [g/mol]:</b> | 410.20  |

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | -111.90 | kJ/mol  | Joback Method  |
| hf            | -356.82 | kJ/mol  | Joback Method  |
| hfus          | 37.07   | kJ/mol  | Joback Method  |
| hvap          | 87.00   | kJ/mol  | Joback Method  |
| log10ws       | -5.63   |         | Crippen Method |
| logp          | 3.825   |         | Crippen Method |
| mcvol         | 243.570 | ml/mol  | McGowan Method |
| pc            | 2167.36 | kPa     | Joback Method  |
| rinpol        | 2613.00 |         | NIST Webbook   |
| tb            | 897.40  | K       | Joback Method  |
| tc            | 1150.26 | K       | Joback Method  |
| tf            | 561.61  | K       | Joback Method  |
| vc            | 0.907   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 652.28    | J/molxK | 897.40          | Joback Method |
| cpg           | 696.29    | J/molxK | 1108.12         | Joback Method |
| cpg           | 689.84    | J/molxK | 1065.97         | Joback Method |
| cpg           | 682.25    | J/molxK | 1023.83         | Joback Method |
| cpg           | 673.50    | J/molxK | 981.69          | Joback Method |
| cpg           | 663.53    | J/molxK | 939.54          | Joback Method |
| cpg           | 701.67    | J/molxK | 1150.26         | Joback Method |
| dvisc         | 0.0000638 | Paxs    | 897.40          | Joback Method |
| dvisc         | 0.0000795 | Paxs    | 841.43          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0001022 | Paxs | 785.47 | Joback Method |
| dvisc | 0.0001366 | Paxs | 729.50 | Joback Method |
| dvisc | 0.0001915 | Paxs | 673.54 | Joback Method |
| dvisc | 0.0002855 | Paxs | 617.58 | Joback Method |
| dvisc | 0.0004608 | Paxs | 561.61 | Joback Method |

## Sources

|                        |   |
|------------------------|---|
| <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=U378065&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U378065&amp;Units=SI</a> |
| <b>Crippen Method:</b> | <a href="http://pubs.acs.org/doi/abs/10.1021/ci990307I">http://pubs.acs.org/doi/abs/10.1021/ci990307I</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>                                     |

## 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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