

# Isophthalic acid, ethyl 2-propylphenyl ester

|                             |  |
|-----------------------------|--|
| <b>Inchi:</b>               | InChI=1S/C19H20O4/c1-3-8-14-9-5-6-12-17(14)23-19(21)16-11-7-10-15(13-16)18(20)22 |
| <b>InchiKey:</b>            | IIDANTIYFQDCJO-UHFFFAOYSA-N  |
| <b>Formula:</b>             | C19H20O4   |
| <b>SMILES:</b>              | CCCc1ccccc1OC(=O)c1cccc(C(=O)OCC)c1  |
| <b>Mol. weight [g/mol]:</b> | 312.36   |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | -153.18 | kJ/mol               | Joback Method  |
| hf            | -474.97 | kJ/mol               | Joback Method  |
| hfus          | 37.84   | kJ/mol               | Joback Method  |
| hvap          | 82.08   | kJ/mol               | Joback Method  |
| log10ws       | -5.44   |                      | Crippen Method |
| logp          | 4.035   |                      | Crippen Method |
| mcvol         | 245.930 | ml/mol               | McGowan Method |
| pc            | 1861.11 | kPa                  | Joback Method  |
| rinpol        | 2362.00 |                      | NIST Webbook   |
| rinpol        | 2362.00 |                      | NIST Webbook   |
| tb            | 850.02  | K                    | Joback Method  |
| tc            | 1076.64 | K                    | Joback Method  |
| tf            | 526.09  | K                    | Joback Method  |
| vc            | 0.931   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 723.25    | J/molxK | 850.02          | Joback Method |
| cpg           | 737.24    | J/molxK | 887.79          | Joback Method |
| cpg           | 749.97    | J/molxK | 925.56          | Joback Method |
| cpg           | 761.46    | J/molxK | 963.33          | Joback Method |
| cpg           | 771.74    | J/molxK | 1001.10         | Joback Method |
| cpg           | 780.85    | J/molxK | 1038.87         | Joback Method |
| cpg           | 788.81    | J/molxK | 1076.64         | Joback Method |
| dvisc         | 0.0004955 | Paxs    | 526.09          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0003019 | Paxs | 580.08 | Joback Method |
| dvisc | 0.0002002 | Paxs | 634.07 | Joback Method |
| dvisc | 0.0001415 | Paxs | 688.06 | Joback Method |
| dvisc | 0.0001053 | Paxs | 742.04 | Joback Method |
| dvisc | 0.0000815 | Paxs | 796.03 | Joback Method |
| dvisc | 0.0000652 | Paxs | 850.02 | Joback Method |

## Sources

|                        |   |
|------------------------|---|
| <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=U356623&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U356623&amp;Units=SI</a> |
| <b>Crippen Method:</b> | <a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</a>                                 |
| <b>Crippen Method:</b> | <a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>                         |

## Legend

|                            |   |
|----------------------------|---|
| <b>cp<sub>g</sub>:</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>log<sub>10</sub>ws:</b> | Log <sub>10</sub> of Water solubility in mol/l  |
| <b>logp:</b>               | Octanol/Water partition coefficient             |
| <b>m<sub>cvol</sub>:</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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