

# Isophthalic acid, isoheptyl 2,4,5-trichlorophenyl ester

|                      |   |
|----------------------|---|
| Inchi:               | InChI=1S/C20H19Cl3O4/c1-12(2)5-4-8-26-19(24)13-6-3-7-14(9-13)20(25)27-18-11-16(2) |
| InchiKey:            | PGYYHQREOVXUTR-UHFFFAOYSA-N   |
| Formula:             | C20H19Cl3O4   |
| SMILES:              | CC(C)CCCOC(=O)c1cccc(C(=O)Oc2cc(Cl)c(Cl)cc2Cl)c1                                  |
| Mol. weight [g/mol]: | 429.72  |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | -202.25 | kJ/mol               | Joback Method  |
| hf            | -571.05 | kJ/mol               | Joback Method  |
| hfus          | 48.72   | kJ/mol               | Joback Method  |
| hvap          | 98.39   | kJ/mol               | Joback Method  |
| log10ws       | -7.71   |                      | Crippen Method |
| logp          | 6.459   |                      | Crippen Method |
| mvol          | 296.740 | ml/mol               | McGowan Method |
| pc            | 1541.49 | kPa                  | Joback Method  |
| rinpol        | 3053.00 |                      | NIST Webbook   |
| rinpol        | 3053.00 |                      | NIST Webbook   |
| tb            | 994.71  | K                    | Joback Method  |
| tc            | 1234.50 | K                    | Joback Method  |
| tf            | 637.16  | K                    | Joback Method  |
| vc            | 1.129   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 840.96    | J/molxK | 994.71          | Joback Method |
| cpg           | 876.35    | J/molxK | 1194.53         | Joback Method |
| cpg           | 871.87    | J/molxK | 1154.57         | Joback Method |
| cpg           | 866.11    | J/molxK | 1114.60         | Joback Method |
| cpg           | 859.06    | J/molxK | 1074.64         | Joback Method |
| cpg           | 850.69    | J/molxK | 1034.67         | Joback Method |
| cpg           | 879.60    | J/molxK | 1234.50         | Joback Method |
| dvisc         | 0.0000343 | Paxs    | 994.71          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0000425 | Paxs | 935.12 | Joback Method |
| dvisc | 0.0000543 | Paxs | 875.53 | Joback Method |
| dvisc | 0.0000717 | Paxs | 815.93 | Joback Method |
| dvisc | 0.0000991 | Paxs | 756.34 | Joback Method |
| dvisc | 0.0001446 | Paxs | 696.75 | Joback Method |
| dvisc | 0.0002265 | Paxs | 637.16 | 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=U356612&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U356612&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>g<sub>f</sub>:</b>      | Standard Gibbs free energy of formation         |
| <b>h<sub>f</sub>:</b>      | Enthalpy of formation at standard conditions    |
| <b>h<sub>fus</sub>:</b>    | Enthalpy of fusion at standard conditions       |
| <b>h<sub>vap</sub>:</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>log<sub>p</sub>:</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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