

# Sertraline (hydroxyketone), (-H<sub>2</sub>O), enol, acetyl

|                      |  |
|----------------------|--|
| Inchi:               | InChI=1S/C18H12Cl2O2/c1-11(21)22-18-9-7-13(14-4-2-3-5-15(14)18)12-6-8-16(19)17(20) |
| InchiKey:            | HZUSMBBZSXDOG-UHFFFAOYSA-N   |
| Formula:             | C18H12Cl2O2  |
| SMILES:              | CC(=O)Oc1ccc(-c2ccc(Cl)c(Cl)c2)c2ccccc12   |
| Mol. weight [g/mol]: | 331.19   |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | 135.85  | kJ/mol               | Joback Method  |
| hf            | -72.88  | kJ/mol               | Joback Method  |
| hfus          | 37.10   | kJ/mol               | Joback Method  |
| hvap          | 82.43   | kJ/mol               | Joback Method  |
| log10ws       | -7.56   |                      | Crippen Method |
| logp          | 5.739   |                      | Crippen Method |
| mcvol         | 229.420 | ml/mol               | McGowan Method |
| pc            | 2210.37 | kPa                  | Joback Method  |
| rinsol        | 2600.00 |                      | NIST Webbook   |
| tb            | 854.65  | K                    | Joback Method  |
| tc            | 1111.41 | K                    | Joback Method  |
| tf            | 560.24  | K                    | Joback Method  |
| vc            | 0.872   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 595.98    | J/molxK | 854.65          | Joback Method |
| cpg           | 645.48    | J/molxK | 1068.62         | Joback Method |
| cpg           | 637.32    | J/molxK | 1025.82         | Joback Method |
| cpg           | 628.39    | J/molxK | 983.03          | Joback Method |
| cpg           | 618.58    | J/molxK | 940.24          | Joback Method |
| cpg           | 607.81    | J/molxK | 897.44          | Joback Method |
| cpg           | 652.94    | J/molxK | 1111.41         | Joback Method |
| dvisc         | 0.0001588 | Paxs    | 854.65          | Joback Method |
| dvisc         | 0.0001868 | Paxs    | 805.58          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0002245 | Paxs | 756.51 | Joback Method |
| dvisc | 0.0002767 | Paxs | 707.44 | Joback Method |
| dvisc | 0.0003518 | Paxs | 658.38 | Joback Method |
| dvisc | 0.0004650 | Paxs | 609.31 | Joback Method |
| dvisc | 0.0006453 | Paxs | 560.24 | Joback Method |

## Sources

|                        |   |
|------------------------|---|
| <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>                         |
| <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=R196068&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R196068&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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