# 2,4-dichlorobenzyl tridecyl ether

**Inchi:** InChI=1S/C20H32Cl2O/c1-2-3-4-5-6-7-8-9-10-11-12-15-23-17-18-13-14-19(21)16-20(18)
**InchiKey:** OTSXSHIAJZTAFV-UHFFFAOYSA-N
**Formula:** C20H32Cl2O
**SMILES:** CCCCCCCCCCCCCOCc1ccc(Cl)cc1Cl
**Mol. weight [g/mol]:** 359.37

# Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 81.81 | kJ/mol | Joback Method |
| hf | -406.24 | kJ/mol | Joback Method |
| hfus | 50.40 | kJ/mol | Joback Method |
| hvap | 74.89 | kJ/mol | Joback Method |
| log10ws | -8.25 | | Crippen Method |
| logp | 7.821 | | Crippen Method |
| mcvol | 299.250 | ml/mol | McGowan Method |
| pc | 1166.43 | kPa | Joback Method |
| rinpol | 2495.00 | | NIST Webbook |
| rinpol | 2495.00 | | NIST Webbook |
| rinpol | 2483.00 | | NIST Webbook |
| rinpol | 2490.00 | | NIST Webbook |
| rinpol | 2495.00 | | NIST Webbook |
| rinpol | 2496.00 | | NIST Webbook |
| rinpol | 2483.00 | | NIST Webbook |
| rinpol | 2491.00 | | NIST Webbook |
| rinpol | 2494.00 | | NIST Webbook |
| rinpol | 2495.00 | | NIST Webbook |
| rinpol | 2490.00 | | NIST Webbook |
| rinpol | 2483.00 | | NIST Webbook |
| tb | 790.92 | K | Joback Method |
| tc | 984.93 | K | Joback Method |
| tf | 448.69 | K | Joback Method |
| vc | 1.163 | m3/kmol | Joback Method |

# Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 865.24 | J/mol×K | 790.92 | Joback Method |
| cpg | 882.75 | J/mol×K | 823.25 | Joback Method |
| cpg | 899.26 | J/mol×K | 855.59 | Joback Method |
| cpg | 914.80 | J/mol×K | 887.92 | Joback Method |
| cpg | 929.40 | J/mol×K | 920.26 | Joback Method |
| cpg | 943.08 | J/mol×K | 952.59 | Joback Method |
| cpg | 955.90 | J/mol×K | 984.93 | Joback Method |
| dvisc | 0.0007196 | Pa×s | 448.69 | Joback Method |
| dvisc | 0.0003753 | Pa×s | 505.73 | Joback Method |
| dvisc | 0.0002234 | Pa×s | 562.77 | Joback Method |
| dvisc | 0.0001463 | Pa×s | 619.80 | Joback Method |
| dvisc | 0.0001029 | Pa×s | 676.84 | Joback Method |
| dvisc | 0.0000764 | Pa×s | 733.88 | Joback Method |
| dvisc | 0.0000592 | Pa×s | 790.92 | Joback Method |

# Sources

**Crippen Method:** http://pubs.acs.org/doi/abs/10.1021/ci990307l
**Crippen Method:** https://www.chemeo.com/doc/models/crippen_log10ws
**Joback Method:** https://en.wikipedia.org/wiki/Joback_method
**McGowan Method:** http://link.springer.com/article/10.1007/BF02311772
**NIST Webbook:** http://webbook.nist.gov/cgi/cbook.cgi?ID=R32375&Units=SI

# Legend

**cpg:** Ideal gas heat capacity
**dvisc:** Dynamic viscosity
**gf:** Standard Gibbs free energy of formation
**hf:** Enthalpy of formation at standard conditions
**hfus:** Enthalpy of fusion at standard conditions
**hvap:** Enthalpy of vaporization at standard conditions
**log10ws:** Log10 of Water solubility in mol/l
**logp:** Octanol/Water partition coefficient

| | |
|---|---|
| **mcvol:** | McGowan's characteristic volume |
| **pc:** | Critical Pressure |
| **rinpol:** | Non-polar retention indices |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |