# octyl tetradecyl ether

**Inchi:** InChI=1S/C22H46O/c1-3-5-7-9-11-12-13-14-15-16-18-20-22-23-21-19-17-10-8-6-4-2/h3-
**InchiKey:** OGJTVZHMXMMZCH-UHFFFAOYSA-N
**Formula:** C22H46O
**SMILES:** CCCCCCCCCCCCCCCCOCCCCCCCC
**Mol. weight [g/mol]:** 326.60

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| af | 0.9911 | | Cheméo Relay (1.0) |
| gf | 29.36 | kJ/mol | Joback Method |
| hf | -628.32 | kJ/mol | Cheméo Relay (1.0) |
| hfus | 53.92 | kJ/mol | Joback Method |
| hvap | 108.83 | kJ/mol | Cheméo Relay (1.0) |
| ie | 9.56 | eV | Cheméo Relay (1.0) |
| log10ws | -8.05 | | Cheméo Relay (1.0) |
| logp | 8.065 | | Crippen Method |
| mcvol | 326.710 | ml/mol | McGowan Method |
| pc | 892.67 | kPa | Joback Method |
| tb | 597.41 | K | Cheméo Relay (1.0) |
| tc | 775.45 | K | Cheméo Relay (1.0) |
| tf | 288.65 | K | Cheméo Relay (1.0) |
| vc | 1.302 | m3/kmol | Cheméo Relay (1.0) |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 997.15 | J/mol×K | 725.18 | Joback Method |
| cpg | 1018.84 | J/mol×K | 752.93 | Joback Method |
| cpg | 1039.58 | J/mol×K | 780.68 | Joback Method |
| cpg | 1059.40 | J/mol×K | 808.43 | Joback Method |
| cpg | 1078.30 | J/mol×K | 836.19 | Joback Method |
| cpg | 1096.33 | J/mol×K | 863.94 | Joback Method |
| cpg | 1113.50 | J/mol×K | 891.69 | Joback Method |
| dvisc | 0.0019109 | Pa×s | 359.93 | Joback Method |

| | | | | |
|---|---|---|---|---|
| dvisc | 0.0006985 | Pa×s | 420.80 | Joback Method |
| dvisc | 0.0003293 | Pa×s | 481.68 | Joback Method |
| dvisc | 0.0001837 | Pa×s | 542.55 | Joback Method |
| dvisc | 0.0001153 | Pa×s | 603.43 | Joback Method |
| dvisc | 0.0000789 | Pa×s | 664.30 | Joback Method |
| dvisc | 0.0000575 | Pa×s | 725.18 | Joback Method |

# Sources

**Cheméo Relay (1.0, beta):**

**NIST Webbook:** http://webbook.nist.gov/cgi/cbook.cgi?ID=T999920728&Units=SI

**Joback Method:** https://en.wikipedia.org/wiki/Joback_method

**McGowan Method:** http://link.springer.com/article/10.1007/BF02311772

**Crippen Method:** http://pubs.acs.org/doi/abs/10.1021/ci990307l

**Crippen Method:** https://www.chemeo.com/doc/models/crippen_log10ws

**Cheméo Relay (1.0):**

# Legend

**af:** Acentric Factor
**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
**ie:** Ionization energy
**log10ws:** Log10 of Water solubility in mol/l
**logp:** Octanol/Water partition coefficient
**mcvol:** McGowan's characteristic volume
**pc:** Critical Pressure
**tb:** Normal Boiling Point Temperature
**tc:** Critical Temperature
**tf:** Normal melting (fusion) point
**vc:** Critical Volume