# Succinic acid, 2,2-dichloroethyl 10-chlorodecyl ester

**Inchi:** InChI=1S/C16H27Cl3O4/c17-11-7-5-3-1-2-4-6-8-12-22-15(20)9-10-16(21)23-13-14(18)19

**InchiKey:** LYBYCFCUTQGKHI-UHFFFAOYSA-N

**Formula:** C16H27Cl3O4

**SMILES:** O=C(CCC(=O)OCC(Cl)Cl)OCCCCCCCCCCCCl

**Mol. weight [g/mol]:** 389.74

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -422.23 | kJ/mol | Joback Method |
| hf | -915.67 | kJ/mol | Joback Method |
| hfus | 51.84 | kJ/mol | Joback Method |
| hvap | 82.29 | kJ/mol | Joback Method |
| log10ws | -5.31 | | Crippen Method |
| logp | 5.016 | | Crippen Method |
| mcvol | 287.900 | ml/mol | McGowan Method |
| pc | 1308.01 | kPa | Joback Method |
| rinpol | 2640.00 | | NIST Webbook |
| rinpol | 2640.00 | | NIST Webbook |
| tb | 829.91 | K | Joback Method |
| tc | 1023.93 | K | Joback Method |
| tf | 489.16 | K | Joback Method |
| vc | 1.121 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 821.93 | J/mol×K | 829.91 | Joback Method |
| cpg | 882.63 | J/mol×K | 991.59 | Joback Method |
| cpg | 872.31 | J/mol×K | 959.25 | Joback Method |
| cpg | 861.09 | J/mol×K | 926.92 | Joback Method |
| cpg | 848.97 | J/mol×K | 894.58 | Joback Method |
| cpg | 835.92 | J/mol×K | 862.25 | Joback Method |
| cpg | 892.08 | J/mol×K | 1023.93 | Joback Method |
| dvisc | 0.0000550 | Pa×s | 829.91 | Joback Method |

| | | | | |
|---|---|---|---|---|
| dvisc | 0.0000724 | Pa×s | 773.12 | Joback Method |
| dvisc | 0.0000995 | Pa×s | 716.33 | Joback Method |
| dvisc | 0.0001445 | Pa×s | 659.53 | Joback Method |
| dvisc | 0.0002252 | Pa×s | 602.74 | Joback Method |
| dvisc | 0.0003849 | Pa×s | 545.95 | Joback Method |
| dvisc | 0.0007450 | Pa×s | 489.16 | Joback Method |

# Sources

**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=U390408&Units=SI
**Crippen Method:** http://pubs.acs.org/doi/abs/10.1021/ci990307l

# 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