# 1-Dodecanesulfonyl chloride

**Other names:** 1-Dodecanesulphonyl chloride
dodecane-1-sulphonyl chloride
**Inchi:** InChI=1S/C12H25ClO2S/c1-2-3-4-5-6-7-8-9-10-11-12-16(13,14)15/h2-12H2,1H3
**InchiKey:** PBULHKIPTBIZHO-UHFFFAOYSA-N
**Formula:** C12H25ClO2S
**SMILES:** CCCCCCCCCCCCS(=O)(=O)Cl
**Mol. weight [g/mol]:** 268.84
**CAS:** 10147-40-7

# Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -430.31 | kJ/mol | Joback Method |
| hf | -760.10 | kJ/mol | Joback Method |
| hfus | 42.41 | kJ/mol | Joback Method |
| hvap | 65.33 | kJ/mol | Joback Method |
| log10ws | -4.82 | | Crippen Method |
| logp | 4.476 | | Crippen Method |
| mcvol | 220.270 | ml/mol | McGowan Method |
| pc | 1971.80 | kPa | Joback Method |
| tb | 559.17 | K | Joback Method |
| tc | 723.46 | K | Joback Method |
| tf | 293.48 | K | Joback Method |
| vc | 0.882 | m3/kmol | Joback Method |

# Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 531.28 | J/mol×K | 559.17 | Joback Method |
| cpg | 547.48 | J/mol×K | 586.55 | Joback Method |
| cpg | 563.00 | J/mol×K | 613.93 | Joback Method |
| cpg | 577.87 | J/mol×K | 641.31 | Joback Method |
| cpg | 592.08 | J/mol×K | 668.69 | Joback Method |
| cpg | 605.65 | J/mol×K | 696.07 | Joback Method |
| cpg | 618.59 | J/mol×K | 723.46 | Joback Method |

# Sources

| | |
|---|---|
| **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=C10147407&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |

# Legend

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|---|---|
| **cpg:** | Ideal gas heat capacity |
| **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 |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |