# Benzenesulfonamide, 4-methyl-N-ethyl-N-undecyl-

**Inchi:** InChI=1S/C20H35NO2S/c1-4-6-7-8-9-10-11-12-13-18-21(5-2)24(22,23)20-16-14-19(3)15

**InchiKey:** CBQXCZMZRXWGCY-UHFFFAOYSA-N

**Formula:** C20H35NO2S

**SMILES:** CCCCCCCCCCCN(CC)S(=O)(=O)c1ccc(C)cc1

**Mol. weight [g/mol]:** 353.56

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | -137.46 | kJ/mol | Joback Method |
| hf | -616.89 | kJ/mol | Joback Method |
| hfus | 55.61 | kJ/mol | Joback Method |
| hvap | 83.73 | kJ/mol | Joback Method |
| log10ws | -6.22 | | Crippen Method |
| logp | 5.536 | | Crippen Method |
| mcvol | 306.970 | ml/mol | McGowan Method |
| pc | 1403.79 | kPa | Joback Method |
| rinpol | 2991.00 | | NIST Webbook |
| rinpol | 2991.00 | | NIST Webbook |
| tb | 748.88 | K | Joback Method |
| tc | 931.53 | K | Joback Method |
| tf | 425.13 | K | Joback Method |
| vc | 1.192 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 909.29 | J/mol×K | 748.88 | Joback Method |
| cpg | 928.56 | J/mol×K | 779.32 | Joback Method |
| cpg | 946.70 | J/mol×K | 809.76 | Joback Method |
| cpg | 963.76 | J/mol×K | 840.21 | Joback Method |
| cpg | 979.76 | J/mol×K | 870.65 | Joback Method |
| cpg | 994.75 | J/mol×K | 901.09 | Joback Method |
| cpg | 1008.76 | J/mol×K | 931.53 | Joback Method |

# Sources

| | |
|---|---|
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=U415281&Units=SI |
| **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 |

# 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 |
| **rinpol:** | Non-polar retention indices |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |