

# Benzene, [1-(chloromethyl)butyl]

|                             |   |
|-----------------------------|---|
| <b>Inchi:</b>               | InChI=1S/C11H15Cl/c1-2-6-11(9-12)10-7-4-3-5-8-10/h3-5,7-8,11H,2,6,9H2,1H3 |
| <b>InchiKey:</b>            | OMCKNCCLQJXVEQ-UHFFFAOYSA-N   |
| <b>Formula:</b>             | C11H15Cl  |
| <b>SMILES:</b>              | CCCC(CCl)c1ccccc1   |
| <b>Mol. weight [g/mol]:</b> | 182.69  |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | 139.78  | kJ/mol               | Joback Method  |
| hf            | -54.86  | kJ/mol               | Joback Method  |
| hfus          | 18.96   | kJ/mol               | Joback Method  |
| hvap          | 46.35   | kJ/mol               | Joback Method  |
| log10ws       | -3.65   |                      | Crippen Method |
| logp          | 3.809   |                      | Crippen Method |
| mcvol         | 154.330 | ml/mol               | McGowan Method |
| pc            | 2571.50 | kPa                  | Joback Method  |
| rinsol        | 1308.00 |                      | NIST Webbook   |
| tb            | 514.75  | K                    | Joback Method  |
| tc            | 726.81  | K                    | Joback Method  |
| tf            | 255.07  | K                    | Joback Method  |
| vc            | 0.587   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 330.19    | J/molxK | 514.75          | Joback Method |
| cpg           | 345.85    | J/molxK | 550.09          | Joback Method |
| cpg           | 360.58    | J/molxK | 585.44          | Joback Method |
| cpg           | 374.40    | J/molxK | 620.78          | Joback Method |
| cpg           | 387.37    | J/molxK | 656.12          | Joback Method |
| cpg           | 399.52    | J/molxK | 691.46          | Joback Method |
| cpg           | 410.90    | J/molxK | 726.81          | Joback Method |
| dvisc         | 0.0049594 | Paxs    | 255.07          | Joback Method |
| dvisc         | 0.0020092 | Paxs    | 298.35          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0010234 | Paxs | 341.63 | Joback Method |
| dvisc | 0.0006066 | Paxs | 384.91 | Joback Method |
| dvisc | 0.0003997 | Paxs | 428.19 | Joback Method |
| dvisc | 0.0002843 | Paxs | 471.47 | Joback Method |
| dvisc | 0.0002142 | Paxs | 514.75 | Joback Method |

## Sources

|                        |   |
|------------------------|---|
| <b>McGowan Method:</b> | <a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>                     |
| <b>NIST Webbook:</b>   | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=R131858&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R131858&amp;Units=SI</a> |
| <b>Crippen Method:</b> | <a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>                                 |
| <b>Crippen Method:</b> | <a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>                         |
| <b>Joback Method:</b>  | <a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>                                     |

## Legend

|                 |   |
|-----------------|---|
| <b>cpg:</b>     | Ideal gas heat capacity                         |
| <b>dvisc:</b>   | Dynamic viscosity                               |
| <b>gf:</b>      | Standard Gibbs free energy of formation         |
| <b>hf:</b>      | Enthalpy of formation at standard conditions    |
| <b>hfus:</b>    | Enthalpy of fusion at standard conditions       |
| <b>hvap:</b>    | Enthalpy of vaporization at standard conditions |
| <b>log10ws:</b> | Log10 of Water solubility in mol/l              |
| <b>logp:</b>    | Octanol/Water partition coefficient             |
| <b>mcvol:</b>   | McGowan's characteristic volume                 |
| <b>pc:</b>      | Critical Pressure                               |
| <b>rinpol:</b>  | Non-polar retention indices                     |
| <b>tb:</b>      | Normal Boiling Point Temperature                |
| <b>tc:</b>      | Critical Temperature                            |
| <b>tf:</b>      | Normal melting (fusion) point                   |
| <b>vc:</b>      | Critical Volume                                 |

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