

# Propanoic acid, 3-bromo-2-chloro, isopropyl ester

|                      |  |
|----------------------|--|
| Inchi:               | InChI=1S/C6H10BrClO2/c1-4(2)10-6(9)5(8)3-7/h4-5H,3H2,1-2H3 |
| InchiKey:            | ZFRBCCORPDTTTCO-UHFFFAOYSA-N                               |
| Formula:             | C6H10BrClO2  |
| SMILES:              | CC(C)OC(=O)C(Cl)CBr  |
| Mol. weight [g/mol]: | 229.50   |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | -236.77 | kJ/mol               | Joback Method  |
| hf            | -411.94 | kJ/mol               | Joback Method  |
| hfus          | 16.52   | kJ/mol               | Joback Method  |
| hvap          | 48.15   | kJ/mol               | Joback Method  |
| log10ws       | -2.01   |                      | Crippen Method |
| logp          | 1.940   |                      | Crippen Method |
| mcvol         | 132.580 | ml/mol               | McGowan Method |
| pc            | 3460.21 | kPa                  | Joback Method  |
| rinpol        | 1101.00 |                      | NIST Webbook   |
| rinpol        | 1101.00 |                      | NIST Webbook   |
| tb            | 515.68  | K                    | Joback Method  |
| tc            | 724.44  | K                    | Joback Method  |
| tf            | 289.26  | K                    | Joback Method  |
| vc            | 0.494   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 259.37    | J/mol×K | 515.68          | Joback Method |
| cpg           | 303.71    | J/mol×K | 689.65          | Joback Method |
| cpg           | 295.81    | J/mol×K | 654.85          | Joback Method |
| cpg           | 287.43    | J/mol×K | 620.06          | Joback Method |
| cpg           | 278.58    | J/mol×K | 585.27          | Joback Method |
| cpg           | 269.22    | J/mol×K | 550.47          | Joback Method |
| cpg           | 311.15    | J/mol×K | 724.44          | Joback Method |
| dvisc         | 0.0002818 | Paxs    | 515.68          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0003699 | Paxs | 477.94 | Joback Method |
| dvisc | 0.0005086 | Paxs | 440.21 | Joback Method |
| dvisc | 0.0007423 | Paxs | 402.47 | Joback Method |
| dvisc | 0.0011716 | Paxs | 364.73 | Joback Method |
| dvisc | 0.0020547 | Paxs | 327.00 | Joback Method |
| dvisc | 0.0041723 | Paxs | 289.26 | Joback Method |

## Sources

|                        |   |
|------------------------|---|
| <b>Joback Method:</b>  | <a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>                                   |
| <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=R30317&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R30317&amp;Units=SI</a> |
| <b>Crippen Method:</b> | <a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</a>                               |
| <b>Crippen Method:</b> | <a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>                       |

## Legend

|                            |   |
|----------------------------|---|
| <b>cp<sub>g</sub>:</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>log<sub>10</sub>ws:</b> | Log <sub>10</sub> of Water solubility in mol/l  |
| <b>logp:</b>               | Octanol/Water partition coefficient             |
| <b>m<sub>cvol</sub>:</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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