

# Bromoacetic acid, 2-methylpropyl ester

|                      |                                                                 |
|----------------------|-----------------------------------------------------------------|
| Other names:         | Bromoacetic acid, 2-methylpropyl ester<br>Isobutyl bromoacetate |
| Inchi:               | InChI=1S/C6H11BrO2/c1-5(2)4-9-6(8)3-7/h5H,3-4H2,1-2H3           |
| InchiKey:            | UOUQDZFAJUNYQQ-UHFFFAOYSA-N                                     |
| Formula:             | C6H11BrO2                                                       |
| SMILES:              | CC(C)COC(=O)CBr                                                 |
| Mol. weight [g/mol]: | 195.06                                                          |

## Physical Properties

| Property code | Value   | Unit    | Source             |
|---------------|---------|---------|--------------------|
| af            | 0.5389  |         | Cheméo Relay (1.0) |
| hf            | -485.10 | kJ/mol  | Cheméo Relay (1.0) |
| hfus          | 15.85   | kJ/mol  | Joback Method      |
| hvap          | 47.34   | kJ/mol  | Cheméo Relay (1.0) |
| ie            | 10.14   | eV      | Cheméo Relay (1.0) |
| log10ws       | -1.97   |         | Cheméo Relay (1.0) |
| logp          | 1.580   |         | Crippen Method     |
| mcvol         | 120.340 | ml/mol  | McGowan Method     |
| pc            | 3581.35 | kPa     | Joback Method      |
| rinpol        | 1025.80 |         | NIST Webbook       |
| rinpol        | 1021.00 |         | NIST Webbook       |
| rinpol        | 1021.00 |         | NIST Webbook       |
| rinpol        | 1021.00 |         | NIST Webbook       |
| rinpol        | 1025.80 |         | NIST Webbook       |
| rinpol        | 1021.00 |         | NIST Webbook       |
| ripol         | 1488.00 |         | NIST Webbook       |
| ripol         | 1488.00 |         | NIST Webbook       |
| ripol         | 1488.00 |         | NIST Webbook       |
| tb            | 457.27  | K       | Cheméo Relay (1.0) |
| tc            | 639.61  | K       | Cheméo Relay (1.0) |
| tf            | 249.77  | K       | Cheméo Relay (1.0) |
| vc            | 0.434   | m3/kmol | Cheméo Relay (1.0) |

# Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 235.52    | J/mol×K | 478.69          | Joback Method |
| cpg           | 245.58    | J/mol×K | 511.82          | Joback Method |
| cpg           | 255.20    | J/mol×K | 544.95          | Joback Method |
| cpg           | 264.38    | J/mol×K | 578.08          | Joback Method |
| cpg           | 273.13    | J/mol×K | 611.21          | Joback Method |
| cpg           | 281.46    | J/mol×K | 644.34          | Joback Method |
| cpg           | 289.37    | J/mol×K | 677.47          | Joback Method |
| dvisc         | 0.0035442 | Pa×s    | 274.34          | Joback Method |
| dvisc         | 0.0018866 | Pa×s    | 308.40          | Joback Method |
| dvisc         | 0.0011385 | Pa×s    | 342.46          | Joback Method |
| dvisc         | 0.0007528 | Pa×s    | 376.51          | Joback Method |
| dvisc         | 0.0005331 | Pa×s    | 410.57          | Joback Method |
| dvisc         | 0.0003980 | Pa×s    | 444.63          | Joback Method |
| dvisc         | 0.0003098 | Pa×s    | 478.69          | Joback Method |

## Sources

|                           |                                                                                                                                               |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Crippen Method:           | <a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>                             |
| Cheméo Relay (1.0):       |                                                                                                                                               |
| Cheméo Relay (1.0, beta): |                                                                                                                                               |
| NIST Webbook:             | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C59956488&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C59956488&amp;Units=SI</a> |
| Joback Method:            | <a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>                                         |
| McGowan Method:           | <a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>                         |
| Crippen Method:           | <a href="http://pubs.acs.org/doi/abs/10.1021/ci990307l">http://pubs.acs.org/doi/abs/10.1021/ci990307l</a>                                     |

## Legend

|        |                                                 |
|--------|-------------------------------------------------|
| af:    | Acentric Factor                                 |
| cpg:   | Ideal gas heat capacity                         |
| dvisc: | Dynamic viscosity                               |
| hf:    | Enthalpy of formation at standard conditions    |
| hfus:  | Enthalpy of fusion at standard conditions       |
| hvap:  | Enthalpy of vaporization at standard conditions |

|                 |                                     |
|-----------------|-------------------------------------|
| <b>ie:</b>      | Ionization energy                   |
| <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>ripol:</b>   | 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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