

# 5-chlorovaleric acid, but-3-yn-2-yl ester

|                      |                                                                |
|----------------------|----------------------------------------------------------------|
| Inchi:               | InChI=1S/C9H13ClO2/c1-3-8(2)12-9(11)6-4-5-7-10/h1,8H,4-7H2,2H3 |
| InchiKey:            | DKDCXIDSBYMDQQ-UHFFFAOYSA-N                                    |
| Formula:             | C9H13ClO2                                                      |
| SMILES:              | C#CC(C)OC(=O)CCCCCl                                            |
| Mol. weight [g/mol]: | 188.65                                                         |

## Physical Properties

| Property code | Value   | Unit   | Source             |
|---------------|---------|--------|--------------------|
| hf            | -328.22 | kJ/mol | Cheméo Relay (1.0) |
| hfus          | 25.50   | kJ/mol | Joback Method      |
| hvap          | 64.74   | kJ/mol | Cheméo Relay (1.0) |
| ie            | 10.32   | eV     | Cheméo Relay (1.0) |
| logp          | 1.960   |        | Crippen Method     |
| mcvol         | 148.750 | ml/mol | McGowan Method     |
| rinpol        | 1291.10 |        | NIST Webbook       |
| tb            | 472.78  | K      | Cheméo Relay (1.0) |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 317.47 | J/mol×K | 508.72          | Joback Method |
| cpg           | 329.23 | J/mol×K | 541.22          | Joback Method |
| cpg           | 340.44 | J/mol×K | 573.71          | Joback Method |
| cpg           | 351.11 | J/mol×K | 606.21          | Joback Method |
| cpg           | 361.26 | J/mol×K | 638.70          | Joback Method |
| cpg           | 370.89 | J/mol×K | 671.20          | Joback Method |
| cpg           | 380.02 | J/mol×K | 703.70          | Joback Method |

## Sources

NIST Webbook: <http://webbook.nist.gov/cgi/cbook.cgi?ID=U292473&Units=SI>

|                                  |                                                                                                                       |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <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>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>     |
| <b>Cheméo Relay (1.0):</b>       |                                                                                                                       |
| <b>Cheméo Relay (1.0, beta):</b> |                                                                                                                       |

## Legend

|                |                                                 |
|----------------|-------------------------------------------------|
| <b>cpg:</b>    | Ideal gas heat capacity                         |
| <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>ie:</b>     | Ionization energy                               |
| <b>logp:</b>   | Octanol/Water partition coefficient             |
| <b>mcvol:</b>  | McGowan's characteristic volume                 |
| <b>rinpol:</b> | Non-polar retention indices                     |
| <b>tb:</b>     | Normal Boiling Point Temperature                |

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