

# 1-Aminocyclopropanecarboxylic acid, methyl ester

|                      |                                                  |
|----------------------|--------------------------------------------------|
| Other names:         | 1-Aminocyclopropanecarboxylic acid, methyl ester |
| Inchi:               | InChI=1S/C5H9NO2/c1-8-4(7)5(6)2-3-5/h2-3,6H2,1H3 |
| InchiKey:            | CSHMCEYIMFSLSS-UHFFFAOYSA-N                      |
| Formula:             | C5H9NO2                                          |
| SMILES:              | COC(=O)C1(N)CC1                                  |
| Mol. weight [g/mol]: | 115.13                                           |

## Physical Properties

| Property code | Value  | Unit   | Source             |
|---------------|--------|--------|--------------------|
| hfus          | 8.53   | kJ/mol | Joback Method      |
| hvap          | 51.15  | kJ/mol | Cheméo Relay (1.0) |
| logp          | -0.349 |        | Crippen Method     |
| mcvol         | 87.870 | ml/mol | McGowan Method     |
| rinpol        | 903.70 |        | NIST Webbook       |
| rinpol        | 903.70 |        | NIST Webbook       |
| tf            | 343.24 | K      | Cheméo Relay (1.0) |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 195.45 | J/mol×K | 469.60          | Joback Method |
| cpg           | 205.62 | J/mol×K | 505.84          | Joback Method |
| cpg           | 214.95 | J/mol×K | 542.08          | Joback Method |
| cpg           | 223.55 | J/mol×K | 578.32          | Joback Method |
| cpg           | 231.54 | J/mol×K | 614.56          | Joback Method |
| cpg           | 239.03 | J/mol×K | 650.80          | Joback Method |
| cpg           | 246.13 | J/mol×K | 687.04          | Joback Method |

## Sources

Crippen Method: <http://pubs.acs.org/doi/abs/10.1021/ci990307l>

|                                  |                                                                                                                                               |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <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> |                                                                                                                                               |
| <b>NIST Webbook:</b>             | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C72784420&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C72784420&amp;Units=SI</a> |
| <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>                         |

## Legend

|                 |                                                 |
|-----------------|-------------------------------------------------|
| <b>cpg:</b>     | Ideal gas heat capacity                         |
| <b>hfus:</b>    | Enthalpy of fusion at standard conditions       |
| <b>hvap:</b>    | Enthalpy of vaporization at standard conditions |
| <b>logp:</b>    | Octanol/Water partition coefficient             |
| <b>mcvol:</b>   | McGowan's characteristic volume                 |
| <b>rinpola:</b> | Non-polar retention indices                     |
| <b>tf:</b>      | Normal melting (fusion) point                   |

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