

# Carbonic acid, monoamide, N-nonyl-, but-3-yn-1-yl ester

**Inchi:** InChI=1S/C14H25NO2/c1-3-5-7-8-9-10-11-12-15-14(16)17-13-6-4-2/h2H,3,5-13H2,1H3,  
**InchiKey:** LVRIQCSNIVHDBP-UHFFFAOYSA-N  
**Formula:** C14H25NO2  
**SMILES:** C#CCCOC(=O)NCCCCCCCCC  
**Mol. weight [g/mol]:** 239.35

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | 145.54  | kJ/mol               | Joback Method  |
| hf            | -231.72 | kJ/mol               | Joback Method  |
| hfus          | 42.88   | kJ/mol               | Joback Method  |
| hvap          | 62.21   | kJ/mol               | Joback Method  |
| log10ws       | -4.51   |                      | Crippen Method |
| logp          | 3.486   |                      | Crippen Method |
| mcvol         | 216.940 | ml/mol               | McGowan Method |
| pc            | 1803.09 | kPa                  | Joback Method  |
| rmpol         | 2033.00 |                      | NIST Webbook   |
| rmpol         | 2033.00 |                      | NIST Webbook   |
| tb            | 636.30  | K                    | Joback Method  |
| tc            | 815.19  | K                    | Joback Method  |
| tf            | 419.33  | K                    | Joback Method  |
| vc            | 0.841   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 581.80 | J/mol×K | 636.30          | Joback Method |
| cpg           | 597.55 | J/mol×K | 666.12          | Joback Method |
| cpg           | 612.57 | J/mol×K | 695.93          | Joback Method |
| cpg           | 626.87 | J/mol×K | 725.75          | Joback Method |
| cpg           | 640.48 | J/mol×K | 755.56          | Joback Method |
| cpg           | 653.41 | J/mol×K | 785.38          | Joback Method |
| cpg           | 665.69 | J/mol×K | 815.19          | 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=U415467&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=U415467&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>cpg:</b>     | Ideal gas heat capacity                         |
| <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>rinpola:</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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