

# (E)-5,5-Dimethyl-3-hexen-1-yne

|                             |   |
|-----------------------------|---|
| <b>Inchi:</b>               | InChI=1S/C8H12/c1-5-6-7-8(2,3)4/h1,6-7H,2-4H3/b7-6+ |
| <b>InchiKey:</b>            | HTRVREURCYRGAX-VOTSOKGWSA-N                         |
| <b>Formula:</b>             | C8H12   |
| <b>SMILES:</b>              | C#CC=CC(C)(C)C                                      |
| <b>Mol. weight [g/mol]:</b> | 108.18  |
| <b>CAS:</b>                 | 80033-71-2  |

## Physical Properties

| Property code | Value   | Unit                 | Source         |
|---------------|---------|----------------------|----------------|
| gf            | 322.61  | kJ/mol               | Joback Method  |
| hf            | 191.92  | kJ/mol               | Joback Method  |
| hfus          | 12.24   | kJ/mol               | Joback Method  |
| hvap          | 31.92   | kJ/mol               | Joback Method  |
| log10ws       | -2.58   |                      | Crippen Method |
| logp          | 2.222   |                      | Crippen Method |
| mcvol         | 110.680 | ml/mol               | McGowan Method |
| pc            | 3202.78 | kPa                  | Joback Method  |
| tb            | 373.49  | K                    | Joback Method  |
| tc            | 570.74  | K                    | Joback Method  |
| tf            | 224.23  | K                    | Joback Method  |
| vc            | 0.414   | m <sup>3</sup> /kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 194.49 | J/mol×K | 373.49          | Joback Method |
| cpg           | 207.64 | J/mol×K | 406.36          | Joback Method |
| cpg           | 219.94 | J/mol×K | 439.24          | Joback Method |
| cpg           | 231.44 | J/mol×K | 472.11          | Joback Method |
| cpg           | 242.18 | J/mol×K | 504.99          | Joback Method |
| cpg           | 252.22 | J/mol×K | 537.86          | Joback Method |
| cpg           | 261.60 | J/mol×K | 570.74          | Joback Method |

# Sources

|                        |   |
|------------------------|---|
| <b>NIST Webbook:</b>   | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C80033712&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C80033712&amp;Units=SI</a> |
| <b>Crippen Method:</b> | <a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</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>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>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>mccvol:</b>  | McGowan's characteristic volume                 |
| <b>pc:</b>      | Critical Pressure                               |
| <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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