

# 3-Hexen-1-yne, 5,5-dimethyl-, (Z)-

|                      |                                                     |
|----------------------|-----------------------------------------------------|
| Inchi:               | InChI=1S/C8H12/c1-5-6-7-8(2,3)4/h1,6-7H,2-4H3/b7-6- |
| InchiKey:            | HTRVREURCYRGAX-SREVYHEPSA-N                         |
| Formula:             | C8H12                                               |
| SMILES:              | C#CC=CC(C)(C)C                                      |
| Mol. weight [g/mol]: | 108.18                                              |
| CAS:                 | 80033-72-3                                          |

## 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   | m3/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>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=C80033723&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C80033723&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>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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