

# (E,Z) Di-1-propenyl methyl orthoacetate

|                      |                                                                     |
|----------------------|---------------------------------------------------------------------|
| Inchi:               | InChI=1S/C9H16O3/c1-5-7-11-9(3,10-4)12-8-6-2/h5-8H,1-4H3/b7-5-,8-6+ |
| InchiKey:            | OKCRPXLGUMMWRB-CGXWXWIYSA-N                                         |
| Formula:             | C9H16O3                                                             |
| SMILES:              | CC=COC(C)(OC)OC=CC                                                  |
| Mol. weight [g/mol]: | 172.22                                                              |
| CAS:                 | 66178-24-3                                                          |

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | -126.82 | kJ/mol  | Joback Method  |
| hf            | -400.06 | kJ/mol  | Joback Method  |
| hfus          | 15.62   | kJ/mol  | Joback Method  |
| hvap          | 41.48   | kJ/mol  | Joback Method  |
| log10ws       | -2.65   |         | Crippen Method |
| logp          | 2.407   |         | Crippen Method |
| mcvol         | 146.680 | ml/mol  | McGowan Method |
| pc            | 2475.19 | kPa     | Joback Method  |
| tb            | 477.67  | K       | Joback Method  |
| tc            | 667.08  | K       | Joback Method  |
| tf            | 250.14  | K       | Joback Method  |
| vc            | 0.542   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 320.22    | J/mol×K | 477.67          | Joback Method |
| cpg           | 334.14    | J/mol×K | 509.24          | Joback Method |
| cpg           | 347.41    | J/mol×K | 540.81          | Joback Method |
| cpg           | 360.06    | J/mol×K | 572.37          | Joback Method |
| cpg           | 372.11    | J/mol×K | 603.94          | Joback Method |
| cpg           | 383.57    | J/mol×K | 635.51          | Joback Method |
| cpg           | 394.46    | J/mol×K | 667.08          | Joback Method |
| dvisc         | 0.0027854 | Pa×s    | 250.14          | Joback Method |
| dvisc         | 0.0011283 | Pa×s    | 288.06          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0005640 | Pa×s | 325.98 | Joback Method |
| dvisc | 0.0003257 | Pa×s | 363.90 | Joback Method |
| dvisc | 0.0002087 | Pa×s | 401.83 | Joback Method |
| dvisc | 0.0001443 | Pa×s | 439.75 | Joback Method |
| dvisc | 0.0001059 | Pa×s | 477.67 | Joback Method |

## Sources

|                        |                                                                                                                                               |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>NIST Webbook:</b>   | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C66178243&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C66178243&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>                             |
| <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>dvisc:</b>   | Dynamic viscosity                               |
| <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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