

# 3-methyl-1,2,4-trithiolane

|                             |                                                         |
|-----------------------------|---------------------------------------------------------|
| <b>Other names:</b>         | methyl-1,2,4-trithiolane<br>1,2,4-Trithiolane, 3-methyl |
| <b>Inchi:</b>               | InChI=1S/C3H6S3/c1-3-4-2-5-6-3/h3H,2H2,1H3              |
| <b>InchiKey:</b>            | PWVJWPKTQMWOIH-UHFFFAOYSA-N                             |
| <b>Formula:</b>             | C3H6S3                                                  |
| <b>SMILES:</b>              | CC1SCSS1                                                |
| <b>Mol. weight [g/mol]:</b> | 138.28                                                  |

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | 130.51  | kJ/mol  | Joback Method  |
| hf            | 91.01   | kJ/mol  | Joback Method  |
| hfus          | 8.43    | kJ/mol  | Joback Method  |
| hvap          | 39.97   | kJ/mol  | Joback Method  |
| log10ws       | -2.72   |         | Crippen Method |
| logp          | 2.418   |         | Crippen Method |
| mcvol         | 91.320  | ml/mol  | McGowan Method |
| pc            | 5536.07 | kPa     | Joback Method  |
| rinpol        | 1158.00 |         | NIST Webbook   |
| rinpol        | 1115.00 |         | NIST Webbook   |
| rinpol        | 1097.00 |         | NIST Webbook   |
| rinpol        | 1158.00 |         | NIST Webbook   |
| rinpol        | 1121.00 |         | NIST Webbook   |
| ripol         | 1857.00 |         | NIST Webbook   |
| ripol         | 1857.00 |         | NIST Webbook   |
| tb            | 426.81  | K       | Joback Method  |
| tc            | 685.35  | K       | Joback Method  |
| tf            | 384.82  | K       | Joback Method  |
| vc            | 0.282   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 151.28 | J/molxK | 426.81          | Joback Method |

|     |        |         |        |               |
|-----|--------|---------|--------|---------------|
| cpg | 161.14 | J/mol×K | 469.90 | Joback Method |
| cpg | 170.27 | J/mol×K | 512.99 | Joback Method |
| cpg | 178.72 | J/mol×K | 556.08 | Joback Method |
| cpg | 186.53 | J/mol×K | 599.17 | Joback Method |
| cpg | 193.74 | J/mol×K | 642.26 | Joback Method |
| cpg | 200.40 | J/mol×K | 685.35 | Joback Method |

## Sources

|                        |                                                                                                                                         |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| <b>NIST Webbook:</b>   | <a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=R69180&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R69180&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>mcvol:</b>   | McGowan's characteristic volume                 |
| <b>pc:</b>      | Critical Pressure                               |
| <b>rinpol:</b>  | Non-polar retention indices                     |
| <b>ripol:</b>   | 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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