

# 3-ethyl-5-methyl-1,2,4-trithiolane, B

|                      |                                                     |
|----------------------|-----------------------------------------------------|
| Inchi:               | InChI=1S/C5H10S3/c1-3-5-6-4(2)7-8-5/h4-5H,3H2,1-2H3 |
| InchiKey:            | SHLIDHGBMLQTDS-UHFFFAOYSA-N                         |
| Formula:             | C5H10S3                                             |
| SMILES:              | CCC1SSC(C)S1                                        |
| Mol. weight [g/mol]: | 166.33                                              |

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | 139.64  | kJ/mol  | Joback Method  |
| hf            | 29.39   | kJ/mol  | Joback Method  |
| hfus          | 14.68   | kJ/mol  | Joback Method  |
| hvap          | 44.11   | kJ/mol  | Joback Method  |
| log10ws       | -3.67   |         | Crippen Method |
| logp          | 3.197   |         | Crippen Method |
| mcvol         | 119.500 | ml/mol  | McGowan Method |
| pc            | 4062.13 | kPa     | Joback Method  |
| rinpol        | 1250.00 |         | NIST Webbook   |
| rinpol        | 1250.00 |         | NIST Webbook   |
| tb            | 467.90  | K       | Joback Method  |
| tc            | 717.05  | K       | Joback Method  |
| tf            | 403.12  | K       | Joback Method  |
| vc            | 0.394   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value  | Unit    | Temperature [K] | Source        |
|---------------|--------|---------|-----------------|---------------|
| cpg           | 229.19 | J/mol×K | 467.90          | Joback Method |
| cpg           | 242.52 | J/mol×K | 509.42          | Joback Method |
| cpg           | 255.01 | J/mol×K | 550.95          | Joback Method |
| cpg           | 266.70 | J/mol×K | 592.47          | Joback Method |
| cpg           | 277.61 | J/mol×K | 634.00          | Joback Method |
| cpg           | 287.79 | J/mol×K | 675.52          | Joback Method |
| cpg           | 297.27 | J/mol×K | 717.05          | 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=R238672&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R238672&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.cheméo.com/doc/models/crippen_log10ws">https://www.cheméo.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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