

# 3,5-dimethyl-tricosane

**Inchi:** InChI=1S/C25H52/c1-5-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-25(4)23-24(3)6-7

**InchiKey:** VZJJARXZBZCCHK-UHFFFAOYSA-N

**Formula:** C25H52

**SMILES:** CCCCCCCCCCCCCCCCCC(C)CC(C)CC

**Mol. weight [g/mol]:** 352.68

## Physical Properties

| Property code | Value   | Unit    | Source         |
|---------------|---------|---------|----------------|
| gf            | 154.74  | kJ/mol  | Joback Method  |
| hf            | -569.89 | kJ/mol  | Joback Method  |
| hfus          | 53.46   | kJ/mol  | Joback Method  |
| hvap          | 70.47   | kJ/mol  | Joback Method  |
| log10ws       | -9.80   |         | Crippen Method |
| logp          | 9.710   |         | Crippen Method |
| mcvol         | 363.110 | ml/mol  | McGowan Method |
| pc            | 770.75  | kPa     | Joback Method  |
| rinpol        | 2444.00 |         | NIST Webbook   |
| tb            | 770.52  | K       | Joback Method  |
| tc            | 944.69  | K       | Joback Method  |
| tf            | 341.51  | K       | Joback Method  |
| vc            | 1.423   | m3/kmol | Joback Method  |

## Temperature Dependent Properties

| Property code | Value     | Unit    | Temperature [K] | Source        |
|---------------|-----------|---------|-----------------|---------------|
| cpg           | 1152.28   | J/mol×K | 770.52          | Joback Method |
| cpg           | 1175.79   | J/mol×K | 799.55          | Joback Method |
| cpg           | 1198.20   | J/mol×K | 828.58          | Joback Method |
| cpg           | 1219.55   | J/mol×K | 857.60          | Joback Method |
| cpg           | 1239.86   | J/mol×K | 886.63          | Joback Method |
| cpg           | 1259.20   | J/mol×K | 915.66          | Joback Method |
| cpg           | 1277.59   | J/mol×K | 944.69          | Joback Method |
| dvisc         | 0.0037128 | Pa×s    | 341.51          | Joback Method |
| dvisc         | 0.0009256 | Pa×s    | 413.01          | Joback Method |

|       |           |      |        |               |
|-------|-----------|------|--------|---------------|
| dvisc | 0.0003477 | Pa×s | 484.51 | Joback Method |
| dvisc | 0.0001680 | Pa×s | 556.01 | Joback Method |
| dvisc | 0.0000958 | Pa×s | 627.52 | Joback Method |
| dvisc | 0.0000613 | Pa×s | 699.02 | Joback Method |
| dvisc | 0.0000426 | Pa×s | 770.52 | 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=R404587&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=R404587&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>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>rinpol:</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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