Heneicosane

Other names: henicosane

n-Heneicosane

n-henicosane

InChi=1S/C21H44/c1-3-5-7-9-11-13-15-17-19-21-20-18-16-14-12-10-8-6-4-2/h3-21H2,1-

InchiKey: FNAZRRHPUDJQCJ-UHFFFAOYSA-N

Formula: C21H44

SMILES: CCCCCCCCCCCCCCCCC

Mol. weight [g/mol]: 296.57 CAS: 629-94-7

Physical Properties

| Property code | Value | Unit | Source |
|---------------|------------------|--------|-----------------------------------------------------------------------------------------------------------------|
| gf | 125.94 | kJ/mol | Joback Method |
| hf | -476.77 | kJ/mol | Joback Method |
| hfus | 50.15 | kJ/mol | Joback Method |
| hsub | 142.00 ± 10.00 | kJ/mol | NIST Webbook |
| hvap | 106.80 | kJ/mol | NIST Webbook |
| hvap | 109.40 ± 2.60 | kJ/mol | NIST Webbook |
| log10ws | -8.61 | | Crippen Method |
| logp | 8.438 | | Crippen Method |
| mcvol | 306.750 | ml/mol | McGowan Method |
| рс | 1030.00 | kPa | KDB |
| рс | 1000.00 ± 200.00 | kPa | NIST Webbook |
| рс | 1030.00 ± 40.00 | kPa | NIST Webbook |
| rinpol | 348.41 | | NIST Webbook |
| rinpol | 360.40 | | NIST Webbook |
| rinpol | 342.11 | | NIST Webbook |
| rinpol | 360.70 | | NIST Webbook |
| rinpol | 342.11 | | NIST Webbook |
| tb | 629.70 | K | NIST Webbook |
| tb | 635.10 ± 1.50 | K | NIST Webbook |
| tc | 778.00 ± 8.00 | K | NIST Webbook |
| tc | 777.60 ± 3.00 | K | NIST Webbook |
| tc | 779.00 | К | Critical temperatures and pressures of C40, C44, and C60 normal alkanes measured by the pulse-heating technique |

| tc | 778.00 | K | KDB |
|----|--------|---------|---------------------------------------------------------------------------------------|
| tf | 326.43 | K | Joback Method |
| tt | 305.05 | K | Effect of nanopore confinement on the thermal and structural properties of heneicosan |
| VC | 1.212 | m3/kmol | Joback Method |

Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---------------|---------------|---------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| cpg | 998.90 | J/mol×K | 814.73 | Joback Method |
| cpg | 962.16 | J/mol×K | 760.79 | Joback Method |
| cpg | 942.56 | J/mol×K | 733.82 | Joback Method |
| cpg | 922.09 | J/mol×K | 706.85 | Joback Method |
| cpg | 900.73 | J/mol×K | 679.88 | Joback Method |
| cpg | 980.93 | J/mol×K | 787.76 | Joback Method |
| cpg | 1016.08 | J/mol×K | 841.70 | Joback Method |
| cpl | 666.40 | J/mol×K | 315.93 | NIST Webbook |
| dvisc | 0.0000858 | Paxs | 679.88 | Joback Method |
| dvisc | 0.0032793 | Paxs | 326.43 | Joback Method |
| dvisc | 0.0011232 | Paxs | 385.34 | Joback Method |
| dvisc | 0.0005112 | Paxs | 444.25 | Joback Method |
| dvisc | 0.0002797 | Paxs | 503.15 | Joback Method |
| dvisc | 0.0001737 | Paxs | 562.06 | Joback Method |
| dvisc | 0.0001180 | Paxs | 620.97 | Joback Method |
| hfust | 47.70 | kJ/mol | 313.70 | NIST Webbook |
| hfust | 47.70 | kJ/mol | 313.70 | NIST Webbook |
| hfust | 15.48 | kJ/mol | 305.70 | NIST Webbook |
| hfust | 46.60 | kJ/mol | 313.00 | NIST Webbook |
| hvapt | 88.40 | kJ/mol | 526.00 | NIST Webbook |
| hvapt | 106.80 | kJ/mol | 298.15 | Vapor Pressures and Vaporization Enthalpies of the n-Alkanes from C21 to C30 at T = 298.15 K by Correlation Gas Chromatography |
| hvapt | 93.70 | kJ/mol | 406.50 | NIST Webbook |
| hvapt | 110.00 ± 2.00 | kJ/mol | 382.50 | NIST Webbook |
| hvapt | 84.70 | kJ/mol | 415.00 | NIST Webbook |

| pvap | 9.71e-04 | kPa | 361.52 | Experimental Vapor Pressures of Six n-Alkanes (C21, C23, C25, C27, C29, C30) in the Temperature Range between 350 K and 460 K | |
|------|----------|-----|--------|-------------------------------------------------------------------------------------------------------------------------------|--|
| pvap | 0.13 | kPa | 432.27 | Experimental Vapor Pressures of Six n-Alkanes (C21, C23, C25, C27, C29, C30) in the Temperature Range between 350 K and 460 K | |
| pvap | 0.23 | kPa | 442.30 | Experimental Vapor Pressures of Six n-Alkanes (C21, C23, C25, C27, C29, C30) in the Temperature Range between 350 K and 460 K | |
| pvap | 0.38 | kPa | 452.22 | Experimental Vapor Pressures of Six n-Alkanes (C21, C23, C25, C27, C29, C30) in the Temperature Range between 350 K and 460 K | |
| pvap | 0.08 | kPa | 422.19 | Experimental Vapor Pressures of Six n-Alkanes (C21, C23, C25, C27, C29, C30) in the Temperature Range between 350 K and 460 K | |
| pvap | 0.02 | kPa | 402.05 | Experimental Vapor Pressures of Six n-Alkanes (C21, C23, C25, C27, C29, C30) in the Temperature Range between 350 K and 460 K | |
| pvap | 0.01 | kPa | 391.86 | Experimental Vapor Pressures of Six n-Alkanes (C21, C23, C25, C27, C29, C30) in the Temperature Range between 350 K and 460 K | |

| pvap | 4.98e-03 | kPa | 381.65 | Experimental Vapor Pressures of Six n-Alkanes (C21, C23, C25, C27, C29, C30) in the Temperature Range between 350 K and 460 K | |
|-------|----------|---------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| pvap | 3.96e-04 | kPa | 351.54 | Experimental Vapor Pressures of Six n-Alkanes (C21, C23, C25, C27, C29, C30) in the Temperature Range between 350 K and 460 K | |
| рvар | 0.61 | kPa | 461.96 | Experimental Vapor Pressures of Six n-Alkanes (C21, C23, C25, C27, C29, C30) in the Temperature Range between 350 K and 460 K | |
| pvap | 2.20e-03 | kPa | 371.42 | Experimental Vapor Pressures of Six n-Alkanes (C21, C23, C25, C27, C29, C30) in the Temperature Range between 350 K and 460 K | |
| sfust | 50.65 | J/mol×K | 305.70 | NIST Webbook | |
| sfust | 152.06 | J/mol×K | 313.70 | NIST Webbook | |
| vols | 0.00 | m3/kg | 473.05 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range | |

| vols | 0.00 | m3/kg | 383.75 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
|------|------|-------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| vols | 0.00 | m3/kg | 385.65 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 387.65 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 389.55 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |

| vols | 0.00 | m3/kg | 391.55 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
|------|------|-------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| vols | 0.00 | m3/kg | 393.45 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 395.35 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 396.05 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |

| vols | 0.00 | m3/kg | 397.35 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
|------|------|-------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| vols | 0.00 | m3/kg | 399.25 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 401.25 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 403.15 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |

| vols | 0.00 | m3/kg | 405.15 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
|------|------|-------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| vols | 0.00 | m3/kg | 407.05 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 408.95 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 410.95 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |

| vols | 0.00 | m3/kg | 412.85 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
|------|------|-------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| vols | 0.00 | m3/kg | 414.85 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 416.65 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 416.75 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |

| vols | 0.00 | m3/kg | 418.65 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
|------|------|-------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| vols | 0.00 | m3/kg | 420.65 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 422.55 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 424.55 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |

| vols | 0.00 | m3/kg | 426.45 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
|------|------|-------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| vols | 0.00 | m3/kg | 428.45 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 430.35 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 432.25 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |

| vols | 0.00 | m3/kg | 434.25 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
|------|------|-------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| vols | 0.00 | m3/kg | 436.15 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 437.25 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 438.15 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |

| vols | 0.00 | m3/kg | 440.05 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range | |
|------|------|-------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| vols | 0.00 | m3/kg | 442.05 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range | |
| vols | 0.00 | m3/kg | 443.95 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range | |
| vols | 0.00 | m3/kg | 445.85 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range | |

| vols | 0.00 | m3/kg | 447.85 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
|------|------|-------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| vols | 0.00 | m3/kg | 449.75 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 451.75 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 453.65 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |

| vols | 0.00 | m3/kg | 455.65 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
|------|------|-------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| vols | 0.00 | m3/kg | 457.55 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 457.85 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 459.45 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |

| vols | 0.00 | m3/kg | 461.45 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
|------|------|-------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| vols | 0.00 | m3/kg | 463.35 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 465.35 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 467.25 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |

| vols | 0.00 | m3/kg | 469.15 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
|------|------|-------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| vols | 0.00 | m3/kg | 471.15 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 381.75 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 475.05 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |

| vols | 0.00 | m3/kg | 476.95 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
|------|------|-------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| vols | 0.00 | m3/kg | 478.45 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 478.95 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 480.85 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |

| vols | 0.00 | m3/kg | 482.75 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range | |
|------|------|-------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| vols | 0.00 | m3/kg | 484.75 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range | |
| vols | 0.00 | m3/kg | 486.65 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range | |
| vols | 0.00 | m3/kg | 488.65 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range | |

| vols | 0.00 | m3/kg | 488.75 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
|------|------|-------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| vols | 0.00 | m3/kg | 490.55 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 492.55 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 494.45 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |

| vols | 0.00 | m3/kg | 496.35 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
|------|------|-------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| vols | 0.00 | m3/kg | 498.35 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 500.25 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 502.25 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |

| vols | 0.00 | m3/kg | 504.15 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
|------|------|-------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| vols | 0.00 | m3/kg | 506.15 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
| vols | 0.00 | m3/kg | 508.05 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
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| vols | 0.00 | m3/kg | 560.45 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
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| vols | 0.00 | m3/kg | 375.45 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
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| vols | 0.00 | m3/kg | 374.05 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
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| vols | 0.00 | m3/kg | 354.65 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range | |
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| vols | 0.00 | m3/kg | 346.85 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
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| vols | 0.00 | m3/kg | 329.35 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |
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| vols | 0.00 | m3/kg | 313.65 | A simple method to determine the specific volumes of liquids and melts as a function of the temperature. Application to four n-alkanes (C16H34, C18H38, C19H40 and C21H44) under saturating vapour pressure in the 298-573K range |

Pressure Dependent Properties

| Property code | Value | Unit | Pressure [kPa] | Source |
|---------------|--------|------|----------------|--------------|
| tbrp | 373.20 | K | 0.30 | NIST Webbook |

Correlations

| Information | Value |
|-------------|-------|
| | |

| Property code | pvap |
|-----------------------------|---------------------------------------|
| Equation | $ln(Pvp) = A + B/T + C*ln(T) + D*T^2$ |
| Coeff. A | 2.84438e+02 |
| Coeff. B | -2.48585e+04 |
| Coeff. C | -3.81807e+01 |
| Coeff. D | 1.44881e-05 |
| Temperature range (K), min. | 422.15 |

Sources

Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

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Legend

Ideal gas heat capacity cpg: cpl: Liquid phase heat capacity

dvisc: Dynamic viscosity

gf: Standard Gibbs free energy of formation hf: Enthalpy of formation at standard conditions hfus: Enthalpy of fusion at standard conditions hfust: Enthalpy of fusion at a given temperature hsub: Enthalpy of sublimation at standard conditions hvap: Enthalpy of vaporization at standard conditions

hvapt: Enthalpy of vaporization at a given temperature

Log10 of Water solubility in mol/l log10ws: Octanol/Water partition coefficient logp: McGowan's characteristic volume mcvol:

Critical Pressure pc: Vapor pressure pvap:

rinpol: Non-polar retention indices

sfust: Entropy of fusion at a given temperature

tb: Normal Boiling Point Temperature tbrp: Boiling point at reduced pressure

tc: Critical Temperature

tf: Normal melting (fusion) point

tt: Triple Point Temperature

vc: Critical Volume vols: Specific Volume

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