# Pyrene

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| **Other names:** | BENZOPHENANTHRENE |
| | BETA-PYRENE |
| | Benzo[def]phenanthrene |
| | Coal tar pitch volatiles:pyrene |
| | Pyren |
| | benzo(def)phenanthrene |
| | «beta»-Pyrene |
| | Â«betaÂ»-Pyrene |
| **Inchi:** | InChI=1S/C16H10/c1-3-11-7-9-13-5-2-6-14-10-8-12(4-1)15(11)16(13)14/h1-10H |
| **InchiKey:** | BBEAQIROQSPTKN-UHFFFAOYSA-N |
| **Formula:** | C16H10 |
| **SMILES:** | c1cc2ccc3cccc4ccc(c1)c2c34 |
| **Mol. weight [g/mol]:** | 202.25 |
| **CAS:** | 129-00-0 |

# Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| affp | 869.20 | kJ/mol | NIST Webbook |
| affp | 867.80 | kJ/mol | NIST Webbook |
| basg | 841.80 | kJ/mol | NIST Webbook |
| basg | 840.10 | kJ/mol | NIST Webbook |
| chs | -7840.00 ± 3.50 | kJ/mol | NIST Webbook |
| chs | -7850.70 ± 1.00 | kJ/mol | NIST Webbook |
| chs | -7840.10 ± 0.40 | kJ/mol | NIST Webbook |
| ea | 0.39 | eV | NIST Webbook |
| ea | 0.59 ± 0.01 | eV | NIST Webbook |
| ea | 0.41 ± 0.01 | eV | NIST Webbook |
| ea | 0.50 ± 0.03 | eV | NIST Webbook |
| gf | 491.18 | kJ/mol | Joback Method |
| hf | 214.90 | kJ/mol | NIST Webbook |
| hf | 225.50 ± 2.50 | kJ/mol | NIST Webbook |
| hf | 225.70 ± 1.30 | kJ/mol | NIST Webbook |
| hf | 214.90 | kJ/mol | NIST Webbook |
| hfs | 114.70 ± 3.60 | kJ/mol | NIST Webbook |
| hfs | 125.20 ± 2.30 | kJ/mol | NIST Webbook |
| hfs | 114.70 ± 0.40 | kJ/mol | NIST Webbook |
| hfs | 125.50 ± 1.20 | kJ/mol | NIST Webbook |

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|---|---|---|---|
| hfus | 24.49 | kJ/mol | Joback Method |
| hsub | 100.20 | kJ/mol | NIST Webbook |
| hsub | 100.20 ± 0.40 | kJ/mol | NIST Webbook |
| hsub | 100.30 ± 1.00 | kJ/mol | NIST Webbook |
| hsub | 104.50 | kJ/mol | NIST Webbook |
| hsub | 98.50 ± 1.00 | kJ/mol | NIST Webbook |
| hvap | 92.40 ± 1.10 | kJ/mol | NIST Webbook |
| hvap | 87.20 ± 1.30 | kJ/mol | NIST Webbook |
| ie | 7.48 | eV | NIST Webbook |
| ie | 7.40 | eV | NIST Webbook |
| ie | 7.70 | eV | NIST Webbook |
| ie | 7.41 | eV | NIST Webbook |
| ie | 7.41 | eV | NIST Webbook |
| ie | 7.43 ± 0.00 | eV | NIST Webbook |
| ie | 7.31 | eV | NIST Webbook |
| ie | 7.42 | eV | NIST Webbook |
| ie | 7.58 | eV | NIST Webbook |
| ie | 7.55 | eV | NIST Webbook |
| ie | 7.45 ± 0.01 | eV | NIST Webbook |
| ie | 7.72 | eV | NIST Webbook |
| ie | 7.41 | eV | NIST Webbook |
| ie | 7.50 ± 0.05 | eV | NIST Webbook |
| ie | 7.43 ± 0.00 | eV | NIST Webbook |
| ie | 7.45 | eV | NIST Webbook |
| ie | 7.53 | eV | NIST Webbook |
| ie | 7.70 ± 0.30 | eV | NIST Webbook |
| log10ws | -6.18 | | Estimated Solubility Method |
| log10ws | -6.17 | | Aqueous Solubility Prediction Method |
| logp | 4.584 | | Crippen Method |
| mcvol | 158.460 | ml/mol | McGowan Method |
| pc | 2721.00 | kPa | KDB |
| rinpol | 352.41 | | NIST Webbook |
| rinpol | 2104.00 | | NIST Webbook |
| rinpol | 2109.00 | | NIST Webbook |
| rinpol | 2109.00 | | NIST Webbook |
| rinpol | 2112.00 | | NIST Webbook |
| rinpol | 2114.00 | | NIST Webbook |
| rinpol | 2134.00 | | NIST Webbook |
| rinpol | 2135.00 | | NIST Webbook |
| rinpol | 2085.00 | | NIST Webbook |
| rinpol | 2096.00 | | NIST Webbook |
| rinpol | 2103.00 | | NIST Webbook |
| rinpol | 2114.00 | | NIST Webbook |

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|---|---|---|
| rinpol | 2077.00 | NIST Webbook |
| rinpol | 2103.00 | NIST Webbook |
| rinpol | 2061.00 | NIST Webbook |
| rinpol | 348.91 | NIST Webbook |
| rinpol | 348.12 | NIST Webbook |
| rinpol | 350.72 | NIST Webbook |
| rinpol | 351.42 | NIST Webbook |
| rinpol | 350.67 | NIST Webbook |
| rinpol | 351.74 | NIST Webbook |
| rinpol | 353.42 | NIST Webbook |
| rinpol | 351.60 | NIST Webbook |
| rinpol | 340.00 | NIST Webbook |
| rinpol | 340.00 | NIST Webbook |
| rinpol | 351.22 | NIST Webbook |
| rinpol | 352.80 | NIST Webbook |
| rinpol | 352.67 | NIST Webbook |
| rinpol | 351.91 | NIST Webbook |
| rinpol | 352.54 | NIST Webbook |
| rinpol | 352.72 | NIST Webbook |
| rinpol | 352.85 | NIST Webbook |
| rinpol | 352.13 | NIST Webbook |
| rinpol | 352.18 | NIST Webbook |
| rinpol | 352.27 | NIST Webbook |
| rinpol | 352.29 | NIST Webbook |
| rinpol | 352.36 | NIST Webbook |
| rinpol | 352.41 | NIST Webbook |
| rinpol | 352.65 | NIST Webbook |
| rinpol | 352.65 | NIST Webbook |
| rinpol | 352.33 | NIST Webbook |
| rinpol | 352.37 | NIST Webbook |
| rinpol | 346.60 | NIST Webbook |
| rinpol | 346.60 | NIST Webbook |
| rinpol | 351.86 | NIST Webbook |
| rinpol | 351.88 | NIST Webbook |
| rinpol | 351.51 | NIST Webbook |
| rinpol | 353.40 | NIST Webbook |
| rinpol | 351.40 | NIST Webbook |
| rinpol | 352.90 | NIST Webbook |
| rinpol | 352.52 | NIST Webbook |
| rinpol | 351.63 | NIST Webbook |
| rinpol | 351.87 | NIST Webbook |
| rinpol | 351.91 | NIST Webbook |
| rinpol | 351.22 | NIST Webbook |
| rinpol | 352.77 | NIST Webbook |

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| rinpol | 361.60 | NIST Webbook |
| rinpol | 365.40 | NIST Webbook |
| rinpol | 352.09 | NIST Webbook |
| rinpol | 347.41 | NIST Webbook |
| rinpol | 352.16 | NIST Webbook |
| rinpol | 351.51 | NIST Webbook |
| rinpol | 351.22 | NIST Webbook |
| rinpol | 351.00 | NIST Webbook |
| rinpol | 352.41 | NIST Webbook |
| rinpol | 351.91 | NIST Webbook |
| rinpol | 2061.00 | NIST Webbook |
| rinpol | 348.10 | NIST Webbook |
| rinpol | 346.30 | NIST Webbook |
| rinpol | 400.00 | NIST Webbook |
| rinpol | 348.28 | NIST Webbook |
| rinpol | 348.46 | NIST Webbook |
| rinpol | 346.00 | NIST Webbook |
| rinpol | 348.10 | NIST Webbook |
| rinpol | 350.30 | NIST Webbook |
| rinpol | 351.20 | NIST Webbook |
| rinpol | 352.80 | NIST Webbook |
| rinpol | 348.43 | NIST Webbook |
| rinpol | 348.46 | NIST Webbook |
| rinpol | 350.71 | NIST Webbook |
| rinpol | 2042.00 | NIST Webbook |
| rinpol | 350.52 | NIST Webbook |
| rinpol | 350.79 | NIST Webbook |
| rinpol | 351.22 | NIST Webbook |
| rinpol | 351.51 | NIST Webbook |
| rinpol | 351.47 | NIST Webbook |
| rinpol | 351.88 | NIST Webbook |
| rinpol | 350.83 | NIST Webbook |
| rinpol | 353.20 | NIST Webbook |
| rinpol | 352.30 | NIST Webbook |
| rinpol | 348.09 | NIST Webbook |
| rinpol | 351.22 | NIST Webbook |
| rinpol | 351.22 | NIST Webbook |
| rinpol | 351.98 | NIST Webbook |
| rinpol | 352.88 | NIST Webbook |
| rinpol | 351.80 | NIST Webbook |
| rinpol | 351.22 | NIST Webbook |
| rinpol | 347.32 | NIST Webbook |
| rinpol | 347.87 | NIST Webbook |
| rinpol | 348.49 | NIST Webbook |

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| rinpol | 349.15 | NIST Webbook |
| rinpol | 350.66 | NIST Webbook |
| rinpol | 351.22 | NIST Webbook |
| rinpol | 352.30 | NIST Webbook |
| rinpol | 353.34 | NIST Webbook |
| rinpol | 2114.00 | NIST Webbook |
| rinpol | 2103.00 | NIST Webbook |
| rinpol | 2069.70 | NIST Webbook |
| rinpol | 2042.00 | NIST Webbook |
| rinpol | 351.60 | NIST Webbook |
| rinpol | 352.67 | NIST Webbook |
| rinpol | 352.13 | NIST Webbook |
| rinpol | 352.41 | NIST Webbook |
| rinpol | 346.60 | NIST Webbook |
| rinpol | 353.40 | NIST Webbook |
| rinpol | 351.87 | NIST Webbook |
| rinpol | 365.40 | NIST Webbook |
| rinpol | 351.22 | NIST Webbook |
| rinpol | 351.00 | NIST Webbook |
| rinpol | 346.30 | NIST Webbook |
| rinpol | 348.10 | NIST Webbook |
| rinpol | 348.46 | NIST Webbook |
| rinpol | 353.20 | NIST Webbook |
| rinpol | 351.98 | NIST Webbook |
| rinpol | 347.87 | NIST Webbook |
| rinpol | 352.30 | NIST Webbook |
| rinpol | 2113.40 | NIST Webbook |
| rinpol | 2080.40 | NIST Webbook |
| rinpol | 2132.50 | NIST Webbook |
| rinpol | 2069.40 | NIST Webbook |
| rinpol | 2041.00 | NIST Webbook |
| rinpol | 2055.00 | NIST Webbook |
| rinpol | 2078.00 | NIST Webbook |
| rinpol | 2093.00 | NIST Webbook |
| rinpol | 348.91 | NIST Webbook |
| rinpol | 351.74 | NIST Webbook |
| rinpol | 2089.00 | NIST Webbook |
| rinpol | 2044.00 | NIST Webbook |
| rinpol | 2136.00 | NIST Webbook |
| rinpol | 2120.64 | NIST Webbook |
| rinpol | 2069.70 | NIST Webbook |
| rinpol | 2040.00 | NIST Webbook |
| rinpol | 2070.00 | NIST Webbook |
| rinpol | 2048.56 | NIST Webbook |

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| rinpol | 2063.99 | NIST Webbook |
| rinpol | 2093.00 | NIST Webbook |
| rinpol | 2086.00 | NIST Webbook |
| rinpol | 2086.00 | NIST Webbook |
| rinpol | 2080.00 | NIST Webbook |
| rinpol | 2079.00 | NIST Webbook |
| rinpol | 2078.00 | NIST Webbook |
| rinpol | 2070.00 | NIST Webbook |
| rinpol | 2070.00 | NIST Webbook |
| rinpol | 2070.00 | NIST Webbook |
| rinpol | 2070.00 | NIST Webbook |
| rinpol | 2055.00 | NIST Webbook |
| rinpol | 2055.00 | NIST Webbook |
| rinpol | 2055.00 | NIST Webbook |
| rinpol | 2054.00 | NIST Webbook |
| rinpol | 2041.00 | NIST Webbook |
| rinpol | 2057.00 | NIST Webbook |
| rinpol | 2073.47 | NIST Webbook |
| rinpol | 2091.45 | NIST Webbook |
| rinpol | 2069.26 | NIST Webbook |
| rinpol | 2069.40 | NIST Webbook |
| rinpol | 2060.85 | NIST Webbook |
| rinpol | 2049.68 | NIST Webbook |
| rinpol | 2113.40 | NIST Webbook |
| rinpol | 2113.40 | NIST Webbook |
| rinpol | 2132.50 | NIST Webbook |
| rinpol | 2113.40 | NIST Webbook |
| rinpol | 2082.60 | NIST Webbook |
| rinpol | 2095.80 | NIST Webbook |
| rinpol | 2126.40 | NIST Webbook |
| rinpol | 2080.40 | NIST Webbook |
| rinpol | 2132.50 | NIST Webbook |
| rinpol | 2113.40 | NIST Webbook |
| rinpol | 2082.60 | NIST Webbook |
| rinpol | 2113.40 | NIST Webbook |
| rinpol | 2113.40 | NIST Webbook |
| rinpol | 2101.00 | NIST Webbook |
| rinpol | 2119.00 | NIST Webbook |
| rinpol | 2103.00 | NIST Webbook |
| rinpol | 2055.00 | NIST Webbook |
| rinpol | 351.22 | NIST Webbook |
| rinpol | 2046.00 | NIST Webbook |
| ripol | 3183.00 | NIST Webbook |
| ripol | 3135.00 | NIST Webbook |

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| ripol | 3183.00 | | NIST Webbook |
| ripol | 3160.00 | | NIST Webbook |
| ripol | 3160.00 | | NIST Webbook |
| ss | 224.89 | J/mol×K | NIST Webbook |
| ss | 215.10 | J/mol×K | NIST Webbook |
| tb | 666.00 | K | KDB |
| tc | 938.20 | K | KDB |
| tc | 974.00 | K | Critical point measurement of some polycyclic aromatic hydrocarbons |
| tf | 423.90 | K | Isothermal Thermogravimetric Study for Determining Sublimation Enthalpies of Some Hydroxyflavones |
| tf | 427.00 ± 2.00 | K | NIST Webbook |
| tf | 421.25 ± 1.00 | K | NIST Webbook |
| tf | 425.40 ± 0.30 | K | NIST Webbook |
| tf | 424.30 ± 0.60 | K | NIST Webbook |
| tf | 424.15 ± 1.50 | K | NIST Webbook |
| tf | 423.90 | K | Experimental and computational thermodynamics of pyrene and 1-pyrenecarboxaldehyde and their photophysical properties |
| tf | 425.83 | K | Aqueous Solubility Prediction Method |
| tf | 423.80 | K | KDB |
| tf | 425.70 ± 1.00 | K | NIST Webbook |
| tf | 423.60 ± 0.30 | K | NIST Webbook |
| tf | 424.50 ± 0.10 | K | NIST Webbook |
| tt | 423.81 ± 0.01 | K | NIST Webbook |
| vc | 0.626 | m3/kmol | KDB |
| zc | 0.2183590 | | KDB |

# Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 434.86 | J/mol×K | 822.10 | Joback Method |
| cpg | 400.96 | J/mol×K | 694.05 | Joback Method |
| cpg | 454.56 | J/mol×K | 907.48 | Joback Method |
| cpg | 444.86 | J/mol×K | 864.79 | Joback Method |
| cpg | 387.64 | J/mol×K | 651.36 | Joback Method |
| cpg | 413.12 | J/mol×K | 736.73 | Joback Method |

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|---|---|---|---|---|
| cpg | 424.36 | J/mol×K | 779.42 | Joback Method |
| cps | 227.65 | J/mol×K | 291.10 | NIST Webbook |
| cps | 229.70 | J/mol×K | 298.15 | NIST Webbook |
| cps | 229.36 | J/mol×K | 298.15 | NIST Webbook |
| dvisc | 0.0013128 | Pa×s | 651.36 | Joback Method |
| dvisc | 0.0018191 | Pa×s | 463.49 | Joback Method |
| dvisc | 0.0014580 | Pa×s | 576.21 | Joback Method |
| dvisc | 0.0015536 | Pa×s | 538.64 | Joback Method |
| dvisc | 0.0020100 | Pa×s | 425.92 | Joback Method |
| dvisc | 0.0013791 | Pa×s | 613.79 | Joback Method |
| dvisc | 0.0016712 | Pa×s | 501.07 | Joback Method |
| hfust | 17.36 | kJ/mol | 423.80 | NIST Webbook |
| hfust | 0.29 | kJ/mol | 120.80 | NIST Webbook |
| hfust | 17.36 | kJ/mol | 423.80 | NIST Webbook |
| hfust | 16.70 | kJ/mol | 418.00 | NIST Webbook |
| hsubt | 100.30 ± 0.30 | kJ/mol | 376.00 | NIST Webbook |
| hsubt | 100.80 ± 1.50 | kJ/mol | 383.50 | NIST Webbook |
| hsubt | 91.20 ± 0.50 | kJ/mol | 303.00 | NIST Webbook |
| hsubt | 100.20 ± 0.40 | kJ/mol | 410.50 | NIST Webbook |
| hsubt | 103.30 ± 2.10 | kJ/mol | 379.50 | NIST Webbook |
| hsubt | 103.10 ± 6.50 | kJ/mol | 353.00 | NIST Webbook |
| hsubt | 100.10 ± 1.70 | kJ/mol | 351.50 | NIST Webbook |
| hsubt | 94.14 | kJ/mol | 344.75 | NIST Webbook |
| hsubt | 100.50 | kJ/mol | 330.50 | NIST Webbook |
| hsubt | 97.90 | kJ/mol | 383.00 | NIST Webbook |
| hvapt | 76.40 | kJ/mol | 428.00 | NIST Webbook |
| hvapt | 73.00 | kJ/mol | 590.50 | NIST Webbook |
| hvapt | 76.00 | kJ/mol | 440.00 | NIST Webbook |
| hvapt | 78.60 | kJ/mol | 398.00 | NIST Webbook |
| hvapt | 81.50 | kJ/mol | 435.00 | Evaluation of sublimation enthalpy by thermogravimetry: Analysis of the diffusion effects in the case of methyl and phenyl substituted hydantoins |
| psub | 1.71e-04 | kPa | 351.05 | Thermal Stability, Sublimation Pressures, and Diffusion Coefficients of Anthracene, Pyrene, and Some Metal beta-Diketonates |

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|---|---|---|---|---|---|
| psub | 0.01 | kPa | 398.55 | Thermal Stability, Sublimation Pressures, and Diffusion Coefficients of Anthracene, Pyrene, and Some Metal beta-Diketonates | |
| psub | 0.03 | kPa | 408.05 | Thermal Stability, Sublimation Pressures, and Diffusion Coefficients of Anthracene, Pyrene, and Some Metal beta-Diketonates | |
| psub | 0.02 | kPa | 402.05 | Thermal Stability, Sublimation Pressures, and Diffusion Coefficients of Anthracene, Pyrene, and Some Metal beta-Diketonates | |
| psub | 8.46e-03 | kPa | 392.95 | Thermal Stability, Sublimation Pressures, and Diffusion Coefficients of Anthracene, Pyrene, and Some Metal beta-Diketonates | |
| psub | 5.39e-03 | kPa | 389.05 | Thermal Stability, Sublimation Pressures, and Diffusion Coefficients of Anthracene, Pyrene, and Some Metal beta-Diketonates | |
| psub | 4.72e-03 | kPa | 383.95 | Thermal Stability, Sublimation Pressures, and Diffusion Coefficients of Anthracene, Pyrene, and Some Metal beta-Diketonates | |
| psub | 1.97e-03 | kPa | 379.55 | Thermal Stability, Sublimation Pressures, and Diffusion Coefficients of Anthracene, Pyrene, and Some Metal beta-Diketonates | |

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|---|---|---|---|---|---|
| psub | 1.47e-03 | kPa | 373.95 | Thermal Stability, Sublimation Pressures, and Diffusion Coefficients of Anthracene, Pyrene, and Some Metal beta-Diketonates | |
| psub | 8.82e-04 | kPa | 369.85 | Thermal Stability, Sublimation Pressures, and Diffusion Coefficients of Anthracene, Pyrene, and Some Metal beta-Diketonates | |
| psub | 7.50e-05 | kPa | 341.45 | Thermal Stability, Sublimation Pressures, and Diffusion Coefficients of Anthracene, Pyrene, and Some Metal beta-Diketonates | |
| psub | 2.81e-03 | kPa | 381.40 | Vapor Pressures and Enthalpies of Sublimation of Ten Polycyclic Aromatic Hydrocarbons Determined via the Knudsen Effusion Method | |
| psub | 1.30e-03 | kPa | 372.00 | Vapor Pressures and Enthalpies of Sublimation of Ten Polycyclic Aromatic Hydrocarbons Determined via the Knudsen Effusion Method | |
| psub | 5.99e-04 | kPa | 362.10 | Vapor Pressures and Enthalpies of Sublimation of Ten Polycyclic Aromatic Hydrocarbons Determined via the Knudsen Effusion Method | |
| psub | 3.39e-04 | kPa | 356.80 | Vapor Pressures and Enthalpies of Sublimation of Ten Polycyclic Aromatic Hydrocarbons Determined via the Knudsen Effusion Method | |

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| psub | 2.27e-04 | kPa | 352.30 | Vapor Pressures and Enthalpies of Sublimation of Ten Polycyclic Aromatic Hydrocarbons Determined via the Knudsen Effusion Method |
| psub | 1.47e-04 | kPa | 347.10 | Vapor Pressures and Enthalpies of Sublimation of Ten Polycyclic Aromatic Hydrocarbons Determined via the Knudsen Effusion Method |
| psub | 9.43e-05 | kPa | 342.10 | Vapor Pressures and Enthalpies of Sublimation of Ten Polycyclic Aromatic Hydrocarbons Determined via the Knudsen Effusion Method |
| psub | 5.31e-05 | kPa | 337.10 | Vapor Pressures and Enthalpies of Sublimation of Ten Polycyclic Aromatic Hydrocarbons Determined via the Knudsen Effusion Method |
| psub | 8.95e-06 | kPa | 322.00 | Vapor Pressures and Enthalpies of Sublimation of Ten Polycyclic Aromatic Hydrocarbons Determined via the Knudsen Effusion Method |
| psub | 8.27e-04 | kPa | 363.63 | Measurement of Vapor Pressures of Selected PBDEs, Hexabromobenzene, and 1,2-Bis(2,4,6-tribromophenoxy)ethane at Elevated Temperatures |
| psub | 1.21e-04 | kPa | 343.36 | Measurement of Vapor Pressures of Selected PBDEs, Hexabromobenzene, and 1,2-Bis(2,4,6-tribromophenoxy)ethane at Elevated Temperatures |

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|---|---|---|---|---|
| psub | 4.56e-05 | kPa | 333.53 | Measurement of Vapor Pressures of Selected PBDEs, Hexabromobenzene, and 1,2-Bis(2,4,6-tribromophenoxy)ethane at Elevated Temperatures |
| psub | 1.41e-05 | kPa | 323.81 | Measurement of Vapor Pressures of Selected PBDEs, Hexabromobenzene, and 1,2-Bis(2,4,6-tribromophenoxy)ethane at Elevated Temperatures |
| psub | 3.64e-06 | kPa | 313.61 | Measurement of Vapor Pressures of Selected PBDEs, Hexabromobenzene, and 1,2-Bis(2,4,6-tribromophenoxy)ethane at Elevated Temperatures |
| psub | 3.29e-04 | kPa | 353.24 | Measurement of Vapor Pressures of Selected PBDEs, Hexabromobenzene, and 1,2-Bis(2,4,6-tribromophenoxy)ethane at Elevated Temperatures |
| pvap | 1.05 | kPa | 480.00 | Hypothetical Thermodynamic Properties. Subcooled Vaporization Enthalpies and Vapor Pressures of Polyaromatic Hydrocarbons |
| pvap | 1.49 | kPa | 490.00 | Hypothetical Thermodynamic Properties. Subcooled Vaporization Enthalpies and Vapor Pressures of Polyaromatic Hydrocarbons |
| pvap | 2.08 | kPa | 500.00 | Hypothetical Thermodynamic Properties. Subcooled Vaporization Enthalpies and Vapor Pressures of Polyaromatic Hydrocarbons |

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| pvap | 2.84 | kPa | 510.00 | Hypothetical Thermodynamic Properties. Subcooled Vaporization Enthalpies and Vapor Pressures of Polyaromatic Hydrocarbons |
| pvap | 0.72 | kPa | 470.00 | Hypothetical Thermodynamic Properties. Subcooled Vaporization Enthalpies and Vapor Pressures of Polyaromatic Hydrocarbons |
| pvap | 0.49 | kPa | 460.00 | Hypothetical Thermodynamic Properties. Subcooled Vaporization Enthalpies and Vapor Pressures of Polyaromatic Hydrocarbons |
| pvap | 0.32 | kPa | 450.00 | Hypothetical Thermodynamic Properties. Subcooled Vaporization Enthalpies and Vapor Pressures of Polyaromatic Hydrocarbons |
| pvap | 0.21 | kPa | 440.00 | Hypothetical Thermodynamic Properties. Subcooled Vaporization Enthalpies and Vapor Pressures of Polyaromatic Hydrocarbons |
| pvap | 0.13 | kPa | 430.00 | Hypothetical Thermodynamic Properties. Subcooled Vaporization Enthalpies and Vapor Pressures of Polyaromatic Hydrocarbons |
| pvap | 0.08 | kPa | 420.00 | Hypothetical Thermodynamic Properties. Subcooled Vaporization Enthalpies and Vapor Pressures of Polyaromatic Hydrocarbons |

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|---|---|---|---|---|
| pvap | 0.04 | kPa | 410.00 | Hypothetical Thermodynamic Properties. Subcooled Vaporization Enthalpies and Vapor Pressures of Polyaromatic Hydrocarbons |
| pvap | 0.03 | kPa | 400.00 | Hypothetical Thermodynamic Properties. Subcooled Vaporization Enthalpies and Vapor Pressures of Polyaromatic Hydrocarbons |
| pvap | 0.01 | kPa | 390.00 | Hypothetical Thermodynamic Properties. Subcooled Vaporization Enthalpies and Vapor Pressures of Polyaromatic Hydrocarbons |
| pvap | 6.97e-03 | kPa | 380.00 | Hypothetical Thermodynamic Properties. Subcooled Vaporization Enthalpies and Vapor Pressures of Polyaromatic Hydrocarbons |
| pvap | 3.43e-03 | kPa | 370.00 | Hypothetical Thermodynamic Properties. Subcooled Vaporization Enthalpies and Vapor Pressures of Polyaromatic Hydrocarbons |
| pvap | 1.60e-03 | kPa | 360.00 | Hypothetical Thermodynamic Properties. Subcooled Vaporization Enthalpies and Vapor Pressures of Polyaromatic Hydrocarbons |
| pvap | 7.06e-04 | kPa | 350.00 | Hypothetical Thermodynamic Properties. Subcooled Vaporization Enthalpies and Vapor Pressures of Polyaromatic Hydrocarbons |

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|---|---|---|---|---|
| pvap | 2.92e-04 | kPa | 340.00 | Hypothetical Thermodynamic Properties. Subcooled Vaporization Enthalpies and Vapor Pressures of Polyaromatic Hydrocarbons |
| pvap | 1.13e-04 | kPa | 330.00 | Hypothetical Thermodynamic Properties. Subcooled Vaporization Enthalpies and Vapor Pressures of Polyaromatic Hydrocarbons |
| pvap | 4.06e-05 | kPa | 320.00 | Hypothetical Thermodynamic Properties. Subcooled Vaporization Enthalpies and Vapor Pressures of Polyaromatic Hydrocarbons |
| pvap | 1.34e-05 | kPa | 310.00 | Hypothetical Thermodynamic Properties. Subcooled Vaporization Enthalpies and Vapor Pressures of Polyaromatic Hydrocarbons |
| pvap | 3.22e-06 | kPa | 298.15 | Hypothetical Thermodynamic Properties. Subcooled Vaporization Enthalpies and Vapor Pressures of Polyaromatic Hydrocarbons |
| pvap | 4.07e-06 | kPa | 300.00 | Hypothetical Thermodynamic Properties. Subcooled Vaporization Enthalpies and Vapor Pressures of Polyaromatic Hydrocarbons |
| rhol | 1274.21 | kg/m3 | 293.10 | KDB |
| sfust | 40.97 | J/mol×K | 423.80 | NIST Webbook |
| sfust | 2.39 | J/mol×K | 120.80 | NIST Webbook |

# Correlations

| Information | Value |
|---|---|
| Property code | pvap |
| Equation | ln(Pvp) = A + B/(T + C) |
| Coeff. A | 1.50707e+01 |
| Coeff. B | -6.21237e+03 |
| Coeff. C | -7.35980e+01 |
| Temperature range (K), min. | 493.83 |
| Temperature range (K), max. | 710.16 |

| Information | Value |
|---|---|
| Property code | pvap |
| Equation | ln(Pvp) = A + B/T + C*ln(T) + D*T^2 |
| Coeff. A | 8.81031e+01 |
| Coeff. B | -1.32178e+04 |
| Coeff. C | -9.93042e+00 |
| Coeff. D | 2.04131e-06 |
| Temperature range (K), min. | 423.81 |
| Temperature range (K), max. | 936.00 |

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# Legend

| | |
|---|---|
| **affp:** | Proton affinity |
| **basg:** | Gas basicity |
| **chs:** | Standard solid enthalpy of combustion |
| **cpg:** | Ideal gas heat capacity |
| **cps:** | Solid phase heat capacity |
| **dvisc:** | Dynamic viscosity |
| **ea:** | Electron affinity |
| **gf:** | Standard Gibbs free energy of formation |
| **hf:** | Enthalpy of formation at standard conditions |
| **hfs:** | Solid phase 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 |
| **hsubt:** | Enthalpy of sublimation at a given temperature |
| **hvap:** | Enthalpy of vaporization at standard conditions |
| **hvapt:** | Enthalpy of vaporization at a given temperature |
| **ie:** | Ionization energy |
| **log10ws:** | Log10 of Water solubility in mol/l |
| **logp:** | Octanol/Water partition coefficient |
| **mcvol:** | McGowan's characteristic volume |
| **pc:** | Critical Pressure |
| **psub:** | Sublimation pressure |
| **pvap:** | Vapor pressure |
| **rhol:** | Liquid Density |
| **rinpol:** | Non-polar retention indices |
| **ripol:** | Polar retention indices |

| | |
|---|---|
| **sfust:** | Entropy of fusion at a given temperature |
| **ss:** | Solid phase molar entropy at standard conditions |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **tt:** | Triple Point Temperature |
| **vc:** | Critical Volume |
| **zc:** | Critical Compressibility |