**Octadecane**

**Other names:** Octadecan; n-Octadecane.

**InChI:** InChI=1S/C18H38/c1-3-5-7-9-11-13-15-17-18-16-14-12-10-8-6-4-2/h3-18H2,1-2H3

**InChI Key:** RZJRJXONCZWCBN-UHFFFAOYSA-N

**Formula:** C18H38

**SMILES:** CCCCCCCCCCCCCCCC

**Molecular Weight:** 254.49

**CAS:** 593-45-3

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**Physical Properties**

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**Temperature Dependent Properties**
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Sources

NIST Webbook: http://webbook.nist.gov/cgi/inchi/InChI=1S/C18H38/c1-3-5-7-9-11-13-15-17-18-16-14-12-10-8-6-4-2/h3-18H2,1-2H3
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

\[ \Delta_c H^0_{\text{liquid}} \]: Standard liquid enthalpy of combustion (kJ/mol).
\[ \Delta_c H^0_{\text{solid}} \]: Standard solid enthalpy of combustion (kJ/mol).
\[ C_{p,\text{gas}} \]: Ideal gas heat capacity (J/mol×K).
\[ C_{p,\text{liquid}} \]: Liquid phase heat capacity (J/mol×K).
\[ C_{p,\text{solid}} \]: Solid phase heat capacity (J/mol×K).
\[ \eta \]: Dynamic viscosity (Pa×s).
\[ \Delta_f G^0 \]: Standard Gibbs free energy of formation (kJ/mol).
\[ \Delta_f H^0_{\text{gas}} \]: Enthalpy of formation at standard conditions (kJ/mol).
\[ \Delta_f H^0_{\text{liquid}} \]: Liquid phase enthalpy of formation at standard conditions (kJ/mol).
\[ \Delta_f H^0_{\text{solid}} \]: Solid phase enthalpy of formation at standard conditions (kJ/mol).
\[ \Delta_f H^0_{\text{fus}} \]: Enthalpy of fusion at standard conditions (kJ/mol).
\[ \Delta_f H_{\text{fus}} \]: Enthalpy of fusion at a given temperature (kJ/mol).
\[ \Delta_f H_{\text{sub}} \]: Enthalpy of sublimation at standard conditions (kJ/mol).
\[ \Delta_f H_{\text{vap}} \]: Enthalpy of vaporization at standard conditions (kJ/mol).
\[ \Delta_f H_{\text{vap}} \]: Enthalpy of vaporization at a given temperature (kJ/mol).
\[ \log P_{\text{oct/wat}} \]: Octanol/Water partition coefficient.
\[ P_c \]: Critical Pressure (kPa).
\[ \Delta_f S_{\text{fus}} \]: Entropy of fusion at a given temperature (J/mol×K).
\[ S^0_{\text{liquid}} \]: Liquid phase molar entropy at standard conditions (J/mol×K).
\[ S^0_{\text{solid,1 bar}} \]: Solid phase molar entropy at standard conditions (J/mol×K).
\[ T_{\text{boil}} \]: Normal Boiling Point Temperature (K).
\[ T_c \]: Critical Temperature (K).
\[ T_{\text{fus}} \]: Normal melting (fusion) point (K).
\[ T_{\text{triple}} \]: Triple Point Temperature (K).
\[ V_c \]: Critical Volume (m$^3$/kg-mol).

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