Butanal

Other names: 1-Butanal; Aldehyde butyrique; Aldeide butirrica; Butal; Butaldehyde; Butalyde; Butan-1-al; Butanaldehyde; Butyl aldehyde; Butyral; Butyraldehyde; Butyraldehyde; Butyric aldehyde; Butyraldehyde; n-Butanal; n-Butyl aldehyde; n-Butyraldehyde; n-C3H7CHO.

InChI: InChI=1S/C4H8O/c1-2-3-4-5/h4H,2-3H2,1H3

InChI Key: ZTQSAGDEMFDKMZ-UHFFFAOYSA-N

Formula: C4H8O

Physical Properties

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**Temperature Dependent Properties**

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Sources

NIST Webbook: http://webbook.nist.gov/cgi/inchi/InChI=1S/C4H8O/c1-2-3-4-5/h4H,2-3H2,1H3
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

PAff: Proton affinity (kJ/mol).
BasG: Gas basicity (kJ/mol).
\( \Delta_{\text{c}}H^\circ_{\text{liquid}} \): Standard liquid enthalpy of combustion (kJ/mol).
C_{\text{p, gas}}: Ideal gas heat capacity (J/mol×K).
C_{\text{p, liquid}}: Liquid phase heat capacity (J/mol×K).
\eta: Dynamic viscosity (Pa×s).
EA: Electron affinity (eV).
\( \Delta_{\text{f}}G^\circ \): Standard Gibbs free energy of formation (kJ/mol).
\( \Delta_{\text{f}}H^\circ_{\text{gas}} \): Enthalpy of formation at standard conditions (kJ/mol).
\( \Delta_{\text{f}}H^\circ_{\text{liquid}} \): Liquid phase enthalpy of formation at standard conditions (kJ/mol).
\( \Delta_{\text{fus}}H^\circ \): Enthalpy of fusion at standard conditions (kJ/mol).
\( \Delta_{\text{fus}}H \): Enthalpy of fusion at a given temperature (kJ/mol).
\( \Delta_{\text{vap}}H^\circ \): Enthalpy of vaporization at standard conditions (kJ/mol).
\( \Delta_{\text{vap}}H \): Enthalpy of vaporization at a given temperature (kJ/mol).
IE: Ionization energy (eV).
\( \log P_{\text{oct/wat}} \): Octanol/Water partition coefficient.
P_{\text{c}}: Critical Pressure (kPa).
\( \Delta_{\text{fus}}S \): Entropy of fusion at a given temperature (J/mol×K).
S_{\text{gas}}^\circ: Molar entropy at standard conditions (J/mol×K).
S_{\text{liquid}}^\circ: Liquid phase molar entropy at standard conditions (J/mol×K).
T_{\text{boil}}: Normal Boiling Point Temperature (K).
T_{\text{c}}: Critical Temperature (K).
T_{\text{fus}}: Normal melting (fusion) point (K).
T_{\text{triple}}: Triple Point Temperature (K).
V_{\text{c}}: Critical Volume (m^3/kg-mol).

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