The Committee on Data for Science and Technology (CODATA) has conducted a project to establish internationally agreed values for the thermodynamic properties of key chemical substances. This table presents the final results of the project. Use of these recommended, internally consistent values is encouraged in the analysis of thermodynamic measurements, data reduction, and preparation of other thermodynamic tables. The table includes the standard enthalpy of formation at 298.15 K, the entropy at 298.15 K, and the quantity $H^\circ(298.15\text{ K}) - H^\circ(0)$. A value of 0 in the DfH° column for an element indicates the reference state for that element. The standard state pressure is 100000 Pa (1 bar). See the reference for information on the dependence of gas-phase entropy on the choice of standard state pressure. Substances are listed in alphabetical order of their chemical formulas when written in the most common form.

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<th>Substance</th>
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### CODATA Key Values for Thermodynamics

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<th>Enthalpy</th>
<th>Entropy</th>
<th>Gibbs Free Energy</th>
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### REFERENCE

The values given in this table represent the consensus judgement of an international group of experts. While we believe there is a high probability that the true values fall within the stated uncertainty limits, CODATA cannot assume responsibility for any consequences of the use of these data.

(Note: All the numerical values have precisions stated alongside them. Browsers using HTML3.2 will show a ± symbol. Earlier versions will only show a space or possibly some code.)