Vicinal hydrogens are the hydrogen atoms on adjacent atoms in an organic molecule.

eg. 1:

\[
\begin{array}{c}
\text{H} \\
\text{C} \\
\text{C} \\
\text{Cl} \\
\text{H} \\
\text{H}
\end{array}
\]

\[1\]

H$_1$ and H$_2$ in 1 are on adjacent carbon atoms. Therefore, they are vicinal hydrogens.

eg. 2:

\[
\begin{array}{c}
\text{H} \\
\text{C} \\
\text{C} \\
\text{H} \\
\text{Cl}
\end{array}
\]

\[2\]

H$_1$ and H$_2$ in 2 are on adjacent carbon atoms. Therefore, they are vicinal hydrogens.

see also geminal hydrogens

Contributors

- Gamini Gunawardena from the OChemPal site (Utah Valley University)