A primary (1°) ammonium ion is an ammonium ion that has the following general structural formula.

\[
\begin{array}{c}
\mathrm{H} \\
\mathrm{R} - \mathrm{N}^+ - \mathrm{H} \\
\mathrm{H}
\end{array}
\]

\(R = \text{alkyl, aryl}\)

e.g.: 

\[
\begin{array}{c}
\mathrm{CH}_3 - \mathrm{N}^+ - \mathrm{H} \\
\mathrm{H}
\end{array}
\quad
\begin{array}{c}
\text{Cyclic structure} - \mathrm{N}^+ - \mathrm{H} \\
\mathrm{H}
\end{array}
\]

see also primary ammonium salt, secondary ammonium ion, tertiary ammonium ion, quaternary ammonium ion

Contributors

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