betaines

Originally, the compound betaine, \((\text{CH}_3)_3\text{N}^+\text{-CH}_2\text{C}(=\text{O})\text{O}^-\text{N,N,N-}
\text{trimethylammonioacetate, and similar zwitterionic compounds derived from other amino acids. By extension, neutral molecules having charge-separated forms with an onium atom which bears no hydrogen atoms and that is not adjacent to the anionic atom. Betaines cannot be represented without formal charges. E.g.}

\[
\begin{align*}
\text{P}^+ & \begin{array}{c}
\text{S} \\
\text{O} \\
\text{O} \\
\text{O}
\end{array} \\
\text{O} \\
\text{P}^+ \\
\text{O}
\end{align*}
\]

\[
\begin{align*}
\text{Ph} & \begin{array}{c}
\text{Ph} \\
\text{P}^+ \\
\text{O} \\
\text{O}
\end{array} \\
\text{Ph} \\
\text{Ph}
\end{align*}
\]

\text{See also: } \text{dipolar compounds, mesoionic compounds, ylides, zwitterionic compounds}

\text{Source:}
\text{PAC, 1995, 67, 1307 (Glossary of class names of organic compounds and reactivity intermediates based on structure (IUPAC Recommendations 1995)) on page 1322}