

**What is the structure of ethoxide ion?**

An ethoxide ion is an anion consisting of the organic molecule ethoxide ( $\text{C}_2\text{H}_5\text{O}^-$ ) that has gained an extra electron, giving it a negative charge. The ethoxide ion is formed by the deprotonation of ethanol ( $\text{C}_2\text{H}_5\text{OH}$ ), in which one of the hydrogen atoms attached to the hydroxyl ( $-\text{OH}$ ) group is replaced by a sodium ( $\text{Na}^+$ ) or potassium ( $\text{K}^+$ ) cation. This reaction results in the formation of an alkoxide ion, which in the case of ethanol is called the ethoxide ion.

