Salts

product of neutralization reaction

weak base strong acid

$$CH_3NH_2$$
 $K_b = 4.4 \times 10^{-4}$ $HClO_4$

$$CH_3NH_2 + H_2O \leftrightarrows CH_3NH_3^+ + OH^- + H^+ + ClO_4^- \rightarrow H_2O$$

 $CH_3NH_3ClO_4(s)$

$$CH_3NH_3^+$$
 $K_a = 2.3 \times 10^{-11}$ ClO_4^- strong conjugate acid weak conjugate base

$$CH_3NH_3^+ + H_2O \leftrightarrows CH_3NH_2 + H_3O^+$$

hydrolysis acidic solution