

Steps to determine if a salt is acidic/basic/neutral

1. Identify ions that the salt came from
2. Determine if the ions will hydrolyze
 - Figure out if they came from a strong or weak acid/base
 - From strong → ion won't hydrolyze – neutral contribution
 - From weak → ion will hydrolyze – acidic or basic contribution
3. If it hydrolyzes identify if the hydrolysis of the ion would form acid (H_3O^+) or base (OH^-).
4. Figure out what the combo of each ion's contribution would be to the solution
5. To determine the "winner" when acidic + basic
 - Compare the K_a and K_b values
 - The higher one means it is stronger, more dissociation so it will contribute more to the resulting solution

Steps to find the actual pH value of a salt solution

1. Do all the steps needed to determine which ion is the "strong" one – which one is being hydrolyzed?
 2. Write the hydrolysis reaction for that ion (or ions)
 3. ICE Table time! Yes! More ICE tables! They just won't go away! ☺ Use your hydrolysis rxn for ICE Table
 4. Find $[\text{H}_3\text{O}^+]$ or $[\text{OH}^-]$ from ICE Tables
 5. Continue on with normal pH type calculations using the concentrations you found from the ICE Table
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