

B. Tests for Ammonium Ion,  $NH_4^+$ , and Iron(III) Ion,  $Fe^{3+}$

Cation	Test Results (Known)		Test Results (Unknown)	
	Odor	Litmus	Odor	Litmus
1. $NH_4^+$		Red	?	
2. $Fe^{3+}$		Turn Dark Red	.	

3. From your test results, does your unknown contain  $NH_4^+$  or  $Fe^{3+}$ , or none of these? ?

Explain your choice.

C. Tests for Negative Ions (Anions)

Anion	Observations (Known)	Observations (Unknown Solution)
1. $Cl^-$	No ppt	Turns white ppt remains after $HNO_3$
2. $SO_4^{2-}$	White ppt	No white ppt after $HNO_3$
3. $PO_4^{3-}$	Yellow ppt	No ppt
4. $CO_3^{2-}$	Bubbles (fizz)	No bubbles

5. Identification of the negative ion in the unknown solution

From your test results, what negative ion (anion) is present in your unknown?

Acid provide the negative ion and base provided positive ion

D. Writing the Formula of Your Unknown Salt

- Cation  $Na^+$  Name Sodium
- Anion  $Cl^-$  Name Chloride
- Formula of your unknown salt  $NaCl$
- Name of your unknown salt Sodium Chloride