

Exercise - To identify given sample of salt containing 1 Anion and 1 Cation. Tabulate your observation and write on Confirmatory

Anion Analysis

Test	Observation	Inference
0. Sample + dil. H_2SO_4	Odour of vinegar.	Group A present May be Acetate
Confirmatory Test		
- 0. Solution + Neutral $FeCl_3$	Reddish brown ppt.	CH_3COO^- Confirmed
- Ester Test - Salt + 1ml of ethanol + few drops of conc. H_2SO_4 . Heat the mixture.	Pour the mixture in a beaker containing water. Smell it.	Fruity smell CH_3COO^- Confirmed

Cation Analysis

Test	Observation	Inference
0. Sample + few drops of NaOH.	No smell of NH_3 is produced.	Zero group is absent.
0. Sample + Dil. HCl.	White ppt is formed.	First group is present. May be Pb^{2+}
In above ppt dissolve in water. Divide in 3 parts-		

-	First part - add dilute H_2SO_4	White ppt Separates	Pb^{2+} confirmed
-	Second part - Few drops of KI	A yellow ppt. forms.	Pb^{2+} Confirmed
-	Third part - add few drops of $K_2Cr_2O_4$	A yellow ppt. obtained.	Pb^{2+} Confirmed.

Result -

The given Inorganic sample contains

Anion - Acetate (CH_3COO^-)

Cation - Lead (Pb^{2+})