

Analytical Chemistry - Uses of Ammonium Hydroxide & Sodium Hydroxide

Chemical reactions of the soluble salt solutions with NaOH and NH₄OH

Salt	Reaction with NaOH	Reaction with NH ₄ OH
FeSO ₄	Dark green precipitate	Dark green precipitate
Ca(NO ₃) ₂	White precipitate	-
FeCl ₃	Reddish-brown precipitate	Reddish-brown precipitate
ZnSO ₄	Gelatinous white precipitate soluble in excess NaOH	Gelatinous white precipitate soluble in NH ₄ OH
CuSO ₄	Pale blue precipitate	Deep blue precipitate in excess of NH ₄ OH
Pb(NO ₃) ₂	White precipitate soluble in excess NaOH	White precipitate
NH ₄ Cl	Ammonia gas	-

Amphoteric nature of zinc and aluminium metals: As zinc and aluminium metals displace hydrogen from the acids as well as alkali, therefore, they are amphoteric in nature.

Amphoteric nature of zinc, aluminium and lead oxides: As the oxides of zinc, aluminium and lead react with acids as well as alkalies to form salt and water, they are amphoteric in nature.

Amphoteric nature of zinc, aluminium and lead hydroxides: As the hydroxides of zinc, aluminium and lead react with acids as well as alkalies, they are amphoteric in nature.