All nitrates (NO_3^-)are water soluble.

All acetates (CH_3COO^-)salt are water soluble.**Except** – CH_3COOAg (s.s.), $(CH_3COO)_2Cu_2$ $(CH_3COO)_2Hg_2$ (s.s.) some basic acetates e.g. those of Fe, Al and Cr are insoluble in water. All chloride (Cl^-)are water soluble. **Except** –AgCl, $PbCl_2$ (soluble in hot water), Hg_2Cl_2, Cu_2Cl_2. BiOCl and SbOCl (white turbidity)

All bromides (Br^-)are water soluble. **Except** – AgBr, $PbBr_2$ (soluble in boiled water), Hg_2Br_2, Cu_2Br_2

All Iodides (I^-) are water soluble. **Except** – AgI, PbI_2 (soluble in boiled water), Hg_2I_2, HgI_2, Cu_2I_2, BiI_3, BiOI (orange turbidity).

All sulphates are water soluble. (some basic sulphates such as those of Hg, Bi, Cr are insoluble)

Except– $PbSO_4$, Ag_2SO_4 (s.s.), $BaSO_4$, $SrSO_4$, $CaSO_4$ (s.s.), Li_2SO_4.

All nitrites (NO_2) salts are water soluble. **Except** – $AgNO_2$

All existing salts of $HCO_3^-$are water soluble.

except. $NaHCO_3$ (s.s.)

$S_2O_3{}^{2-}$ ⇒ Most of the thiosulphates those have been prepared are soluble in water

Ag^+, Pb^{2+} and Ba^{2+} (s.s.)

Hg^{2+}, Bi^{3+}, Cu^+ = insoluble

Note –(s.s.) = sparingly soluble

All carbonates (CO_3^{2-}) are water insoluble. **Except** – IA carbonate, Li_2CO_3 (s.s.), $(NH_4)_2CO_3$ All sulphites ($SO_3{}^{2-}$) are water insoluble. **Except** – IA $(NH_4)_2SO_3$ All sulphides (S^{2-}) are water insoluble. **Except** – IA sulphide, IIA sulphides, $(NH_4)_2$ S, (Al, Cr, Mg sulphides are completely hydrolysed) All phosphates (PO_4^{-2}) are water insoluble. Except - IA phosphates except Li_3PO_4, $(NH_4)_3PO_4$ IA = 1°2°3° soluble IIA = 1° soluble but 2°3° insoluble.

All hydroxides (OH^-)are water insoluble. Except - IA hydroxide, $Ba(OH)_2$, $Sr(OH)_2$, $Ca(OH)_2$ All chromates are water insoluble. **Except** – Alkali metal $(NH_4)_2CrO_4$, $CaCrO_4$, $MgCrO_4$, $SrCrO_4$ (s.s.).

All oxalate ($C_2O_4{}^{2-}$) are water insoluble. **Except** – IA, Ferrous oxalate, Ammonium oxalate, BeC_2O_4

All fluorides (F^-)are insoluble in water except IA, AgF, HgF2, AlF_3, BeF_2 and NiF_2

Pb^{2+}, Cu^{2+}, Fe(III), Ba^{2+}, Li^+ =s.s

Their is only hydrated thiosulphate salt is $Na_2\ S_2O_3 \cdot 5H_2O$.

All permagnates (MnO_4^-) are water soluble.

$KClO_4$ is not soluble in water.

$BO_3{}^{3-}$ ⇒ The borates of the alkali metals are readily soluble in water, the borates of the other metals are in genral sparingly soluble in water but fairly soluble in acid and in NH_4Cl solution.