Precipitation/exchange reactions (Level 1) exam tips: Read these please!

**•** Practise using and be able to interpret the solubility rules chart correctly

 You must link the colour change to the species involved

 You don’t need to learn the colours of atoms and ions as they are provided to you on the

NZQA Resource sheet, be sure to familiarise yourself with this.

 Learn the **additional colours** that (*for some strange reason)* have not been included on the NZQA

Resource sheet

|  |  |
| --- | --- |
| Green solid | copper carbonate |
| Blue solid | copper hydroxide |
| Red solid | iron (III) hydroxide |
| Black solid | copper oxide |

To achieve with Merit

You must explain why a precipitate forms...eg "PbCl2 is a precipitate because according to the solubility rules chart, most chlorides are soluble except PbCl2 which is insoluble"

To achieve with Excellence

Provide plenty of detail about both the ions that form the precipitate as well as the spectator ions.

“The two reactants are both soluble as they form solutions.

After they are mixed two new products are possible lead chloride and sodium nitrate. Sodium nitrate remains in solution because the attractive forces between the water molecules and the ions are stronger than the attractions between the oppositely charged ions. The spectator ions are sodium ions/Na+ and nitrate ions/NO3-.

Lead chloride is insoluble because the attractive forces between the water molecules and the ions are weaker than the attractions between the oppositely charged ions.”

Also…”don’t be daft”

Do not write ppt, it is meaningless, write PRECIPITATE, that is the solid substance which forms

Precipitates are not soluble, precipitates are **IN**SOLUBLE

You MUST refer to the solubility chart in your Resource book

The symbol of oxygen is a CAPITAL O, this also applies to nitrates NO3-, arbonates CO32-, sulfates SO42-

Be careful, precipitates are NOT insoluble solutions, that is a contradiction!

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