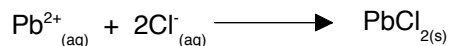


Chemguide – answers

GROUP 4: INSOLUBLE LEAD COMPOUNDS

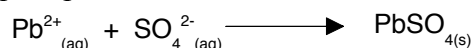
1. a) dilute hydrochloric acid:

Adding a colourless solution of hydrochloric acid to a colourless solution of lead(II) nitrate produces a white precipitate.



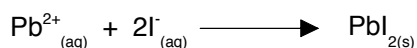
b) dilute sulphuric acid:

Adding a colourless solution of sulphuric acid to a colourless solution of lead(II) nitrate produces a white precipitate.



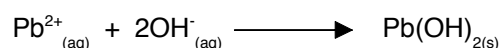
c) sodium iodide solution:

Adding a colourless solution of sodium iodide to a colourless solution of lead(II) nitrate produces a yellow precipitate.



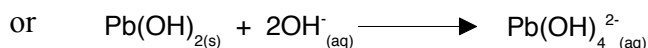
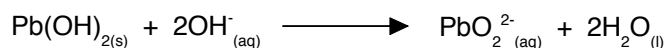
d) sodium hydroxide solution:

Adding a small amount of a colourless solution of sodium hydroxide to a colourless solution of lead(II) nitrate produces a white precipitate.



If you add an excess of sodium hydroxide solution, the precipitate dissolves to give a colourless solution.

The two logical equations for this second stage would be (depending on whether you are using the Chemguide page as your source, or something you have learnt elsewhere – you will meet both of these):



(Note: If a question asks you to describe a reaction, describe everything, however trivial. It is **not** enough to name the product, but not describe it. Should you name it as well? Technically, no, if the question doesn't ask you to. In practice, it would probably be a good idea to name it to be on the safe side – but don't fall into the trap of thinking that the name counts as a description!

Note also: ionic equations for precipitation reactions should show state symbols.)