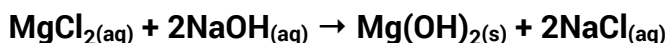


0	1
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Sodium hydroxide solution can be added to magnesium chloride solution. The formula equation for the reaction is shown below:



This is an example of a precipitation reaction.

0	1	.	1
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What is the meaning of the term precipitation reaction?

[2 marks]

produces an insoluble solid [1] from two solutions [1]

.....

0	1	.	2
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What is the colour of this precipitate?

[1 mark]

white

.....

0	1	.	3
---	---	---	---

How could the magnesium hydroxide,  $\text{Mg}(\text{OH})_2$ , be separated from the products of the reaction?

[1 mark]

filtration / filter it

.....

0	2
---	---

Two students tested a green compound X.  
The students added water to compound X. Compound X did not dissolve.

Student A carried out a flame test and observed an intense yellow flame.

Student B added sodium hydroxide solution and a blue precipitate formed.

Student A concluded that compound X was a sodium compound. Student B concluded that compound X contained copper.

0	2	.	1
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Which student, if any, was correct? Explain your reasoning.

[4 marks]

Student B was correct [1]  
Sodium compounds are soluble / are colourless OR  
copper compounds are insoluble / are coloured [1]  
Copper compounds produce a blue precipitate [1]  
Student A's flame test could have been contaminated with sodium [1]

(Total 8 marks)

End