

**GCSE Chemistry A (Gateway Science)**

**J248/01** Chemistry A C1-C3 and C7 (Foundation Tier)

**Question Set 23**

1 Magnesium is an element. It is solid at room temperature.

(a) (i) **Solid** magnesium cannot be compressed.

Why?

[1]

(ii) **Solid** magnesium **cannot** flow, but **liquid** magnesium **can** flow.

Explain why.

[3]

(iii) Magnesium **gas** completely fills any container it is put in.

Explain why.

[2]

(b) Magnesium reacts with water. Magnesium hydroxide,  $\text{Mg}(\text{OH})_2$ , and hydrogen,  $\text{H}_2$ , are made.

Write a balanced symbol equation for this reaction.

[2]

(c) Magnesium nitrate has the formula  $\text{Mg}(\text{NO}_3)_2$ .

Calculate the relative formula mass of magnesium nitrate.

Answer = ..... [1]

**Total Marks for Question Set 23: 9**



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