

GCSE Chemistry B (Twenty First Century Science)
J258/02 Depth in chemistry (Foundation Tier)

Question Set 16

1

Table 5.1 shows the melting points of some transition metals.

| Metal | Melting point (°C) |
|----------|--------------------|
| mercury | -39 |
| vanadium | 1910 |
| copper | 1100 |
| chromium | 1900 |
| zinc | 420 |

Table 5.1

(a) Complete each sentence.

Use the symbols.

You can use each symbol once, more than once, or not at all.

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The melting point of mercury the melting point of vanadium.

The melting point of vanadium the melting point of chromium.

The melting point of chromium the melting point of zinc.

[2]

(b) The **boiling** point of mercury is 357 °C. Room temperature is 20 °C.

(i) What is the **state** of mercury at room temperature?

Put a (ring) around the correct answer.

aqueous solution **gas** **liquid** **solid**

[1]

(ii) Explain the reasoning for your answer to (b)(i).

[2]

(c) **Table 5.2** shows more information about **copper**, **zinc** and **mercury**.

| Metal | Colour of metal oxide | Acts as a catalyst |
|----------------|------------------------------|---------------------------|
| copper | black or red | yes |
| zinc | white | no |
| mercury | red | yes |

Table 5.2

Zinc is **not** a typical transition metal.

Which two statements show that it is **not** a typical transition metal?

Tick (✓) **two** boxes.

All transition metals have red oxides.

Transition metals are good catalysts.

Zinc does not form coloured compounds.

Zinc is in Group 1.

[2]

Total Marks for Question Set 16: 7

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