

12 Identifying ions and gases — Part 2

— Answers

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Work through these after trying the questions yourself.

12.6 Hold a lit (burning) splint at the mouth of the tube; hydrogen burns with a squeaky pop.

12.7 Sodium (Na^+).

12.8 Iron(III), Fe^{3+} .

12.9 Add dilute nitric acid, then silver nitrate solution; a white precipitate shows the chloride ion is present.

12.10 Bubble it through limewater; carbon dioxide turns the limewater milky (cloudy).

12.11 The green precipitate with sodium hydroxide shows **iron(II)**, Fe^{2+} ; the white precipitate with silver nitrate shows the **chloride** ion, Cl^- (the salt is iron(II) chloride).