

4 This question is about electric charge.

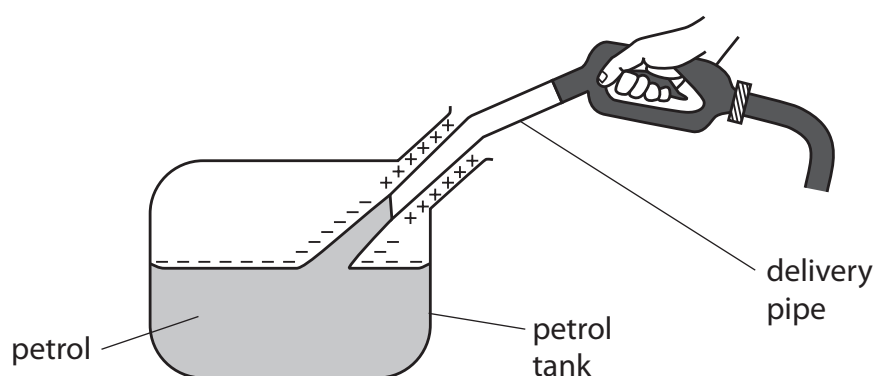
(a) When a balloon is rubbed with a cloth, the balloon becomes negatively charged.

Tick (✓) the two correct statements in the table.

(2)

Statement	Tick
negatively charged particles move from the cloth onto the balloon	
positively charged particles are rubbed off the balloon	
negatively charged particles on the balloon are protons	
the cloth becomes positively charged	

(b) When petrol passes through a delivery pipe, electrostatic charge can build up as shown in the diagram.



(i) Give a reason why a build-up of charge can be dangerous.

(1)

(ii) State how the build-up of electrostatic charge can be prevented.

(1)

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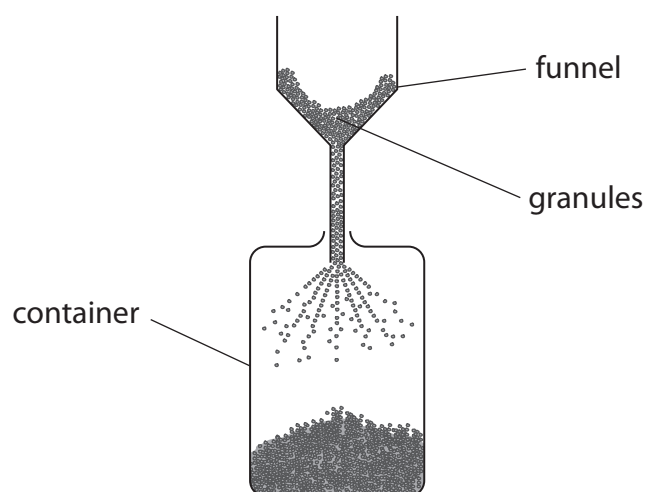
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- (c) The diagram shows coffee granules passing through a funnel into a container.

As the granules pass through the funnel, they gain an electrostatic charge and spread out as they fall.



Explain, in terms of charges, why the granules spread out.

(2)

(Total for Question 4 = 6 marks)

