

3 This question is about electrostatic charges.

(a) Complete the sentences using words from the box.

Each word may be used once, more than once or not at all.

(2)

electrons	negative	neutral	neutrons	positive	protons
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When a plastic rod is rubbed with a cloth, the plastic rod gains

After the plastic rod has been rubbed with the cloth, the plastic rod has a
..... charge.

(b) Electrostatic charges can be useful during paint spraying.



(i) The droplets of paint are given the same charge as they leave the sprayer.

Explain why this is an advantage.

(2)

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.....

.....

.....



(ii) The droplets of paint are positively charged.

The object being painted is given a negative charge.

Explain why this is an advantage.

(2)

(c) Give **one** hazard caused by electrostatic charges and state how the risk from this hazard can be reduced.

(2)

(Total for Question 3 = 8 marks)

