

**GCSE**

**CHEMISTRY A**

Chemistry A Unit 3 Ideas in Context plus C7

**Pre - release Material**

**To be opened immediately**

**For issue to candidates on or after**

**DATE            MARCH            YEAR**

**F            A323/01**

This version is for FOUNDATION tier candidates who will be entered for A323/01.

Sufficient time should be allowed for study of the material in the classroom.

### **INSTRUCTIONS TO CANDIDATES**

- Take the article and read it through carefully. Spend time looking up any technical terms or phrases you do not understand. You are **not** required to do more research of your own on this topic.
- For the examination you will be given a fresh copy of this article, together with the question paper. You will not be able to take this original copy into the examination with you.

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**This Pre-release paper consists of 1 printed pages.**

### **Carcinogenic dye causes food scare**

More than 400 well-known processed foods have been removed from sale because they are contaminated with an illegal red dye which can cause cancer.

The bright red dye, has been used to colour a batch of chilli powder used as an ingredient in a brand of Worcester sauce. The sauce in turn was sold on to hundreds of food companies for manufacture into famous brands of food and supermarket ready meals.

Some flavours of crisps were removed from supermarket shelves.

This table shows how the crisis developed.

28 January 2005	Sudan 1 contamination of chilli powder is discovered by a laboratory in Italy.
1 February 2005	Sudan 1 is found in a brand of Worcester sauce. Environmental health officers are notified.
7 February 2005	Further tests finally confirm presence of the dye.
10 February 2005	The Food Standards Agency (FSA) demands a list of companies supplied the Worcester Sauce for use in other products.
14 February 2005	The list of 200 companies is received by the FSA. The FSA begins ringing the companies.
15 February 2005	The FSA begins telling the companies and supermarkets that they are planning a recall.
18 February 2005	Britain's largest food recall is launched, with more than 400 products withdrawn from supermarket shelves.

Sudan 1 has been shown to cause liver cancer in animal tests. It has not been shown to cause cancer in humans. Sudan 1 is not permitted as a dye for foods in the EU but is used as a colour for boot polish, industrial solvents and petrol.

“At the levels present the risk is likely to be very small but it is sensible to avoid eating any more. There is no risk of immediate ill-health,” said the chief executive of the FSA.

A further difficulty is that by the time the contaminated chilli has been used in other ingredients such as Worcester sauce it is present only in parts per billion making it virtually undetectable.