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# Newspaper Articles

## Pressure on the aerosol business

by *Derek Harris*

Britain's aerosol industry is squaring up to resurgence of the ozone controversy, one result of which could mean large capital spending on new equipment and some company closures with job losses.

It could create a particular problem for ICI as principal supplier in Britain of the aerosol propellants called chlorofluorocarbons. These could be outlawed because it is claimed they thin the ozone layer in the stratosphere.

The ozone layer protects the earth from the sun's ultra-violet radiation. An increase in radiation is likely to cause a greater incidence of skin cancer in white people.

Although evidence on ozone depletion has yet to emerge, Sweden is banning most aerosol sprays from January next year. In the United States, Oregon has brought in a shop ban on many aerosols - while allowing hairdressers, for instance, to buy and use aerosol hairsprays. After that questionable start federal agencies have moved in with a ban timetable that will stop the manufacture after October 15 of 'non-essential' aerosols using as propellants the chlorofluorocarbons, otherwise known as CFCs.

That means in the

United States that a third of the goods bought in aerosol packages, such as hair perfume sprays and deodorants, will have to switch to a different propellant not implicated in the ozone controversy, the rest having already ceased using CFCs.

American manufacturers have switched largely to using hydrocarbons like butane or propane as propellants. But in Europe about 70% of aerosols at present use CFCs as propellants, while in Britain the proportion is probably slightly higher.

This is why United Kingdom aerosol fillers and the CFCs' producers are anxious how far and how quickly the EEC will follow in American footsteps. There has been much pressure in Holland, for a ban on CFC aerosols and it is on the cards that the EEC will decide later this year to start a review of the situation.

Studies on the effect of CFCs are already being carried out in this country and West Germany, adding to the research already being done in the United States.

In terms of collected evidence the ozone controversy is at a stage where at any rate doubts can validly be raised about the continued use of CFCs. But the evidence is largely the

rest of work on mathematical models, which in itself has produced questions of validity.

Some counter theories are being advanced which, if proved right, could turn what looked like an ozone disaster into at least a manageable problem and possibly barely a problem at all. But it is likely to be several years before there is conclusive evidence.

That leaves the manufacturers of aerosol-packaged products and the can fillers (not all manufacturers fill their own cans) weighing the question of when to spend their money on change and, indeed, what change.

Aerosol packaged goods are a £250m a year industry at retail sales values. Last year 532.5 million cans were filled with products ranging from insecticides and medical products to paints, foods and artificial snow as well as the toiletry products, which make up half the total sector.

Hair sprays are far the most popular aerosol product, accounting for some 30% of total aerosol production.

Companies like Unilever's Gibbs, Beechams, Reckitt & Colman and the Wellcome Foundation are among the manufacturers

involved, but there are also contract fillers of which Aerosols International, part of Cadbury Schweppes, is by far the largest.

The options open to the industry are limited. One answer is as quickly as possible to drop the use of CFCs except for the specialist applications for which there is no substitute, such as in medical products like the bronchodilators used by asthmatics.

That would almost certainly mean a switch to the use of the hydrocarbons, which are already used in Britain as elsewhere, particularly in products, which have a water base such as starches and polishes. Hydrocarbons are cheaper - CFCs being three times the price - but they are also flammable.

At one time some of the smelly molecules - usually sulfur derivatives - in butane/propane mixtures made them unsuitable for applications like toiletries, but much purer hydrocarbons from this point of view are now available.

However it poses problems for those making up a propellant "cocktail" for a particular product because of the desirability of countering the flammability. There are some solubility problems compared with

CFCs. But it is the flammability, which poses the biggest cost problem in that if a can-filling factory is not equipped for hydrocarbons large changes are necessary.

Special storage facilities are needed together with other increased safety arrangements in the factory and also in the supply chain after the product has left the factory gate.

For most manufacturers the cost of

factory installations alone is likely to run from between £100,000 and £250,000. It is this sort of cost which smaller fillers may not be able to meet. There are around 120 fillers altogether in the United Kingdom, eight being major manufacturers and 20 particularly small.

Some in the industry believe enough of the smaller establishments would be driven out of business to put at risk at least 1,500 out of the 10,000 jobs in the

industry.

Nobody believes it would be acceptable to consumers to go back in applications like hair sprays to the old finger-operated pumps that predated the aerosol packages. The use of carbon dioxide or nitrogen with no flammability problem but producing a coarse and too variable a spray, offers no scope although the possibility of a combination with hydrocarbons is being looked at.

ICI, which has a big stake in CFCs not only in producing for the aerosol market, but also in such applications as refrigerants, has been looking at alternative CFCs.

One possibility is to produce a less stable CFC, which would be broken down during its journey to the stratosphere, thus rendering it harmless to the ozone.

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