

Letter from Austrian Federal Ministry for Agriculture and Forestry, Environment and Water Management to Mr Krämer, head of Waste Management Policy Unit

Environment DG

Vienna, 29 November 2000

Concerns: Green Paper on PVC

Dear Mr Krämer,

Please find enclosed the opinion of the Federal Ministry for Agriculture and Forestry, Environment and Water Management on the Green Paper on PVC.

National Position and comments of the Federal Ministry for Agriculture and Forestry, Environment and Water Management on the Green Paper COM(2000)469 of 26.7.2000 on environmental issues of PVC

In the opinion of the Federal Ministry for Agriculture and Forestry, Environment and Water Management (hereinafter called the Ministry), the Green Paper makes a significant contribution to an objective and informed debate on PVC. The results of the studies carried out by the Commission as a basis for the Green Paper together with the conclusions drawn provide a solid database on the situation regarding the PVC stream. With its data structure and the breakdown of the main issues, the Green Paper is a great help in focusing the debate in that it deals in a very careful and balanced way with the main issues connected with PVC, the various PVC additives and the specific issue of the treatment of PVC waste.

The Ministry welcomes this initiative by the Commission which in addition to setting out the facts clearly has also initiated a public debate.

The following opinion is divided into two parts, with the "National position on cadmium and phthalates" covering those areas which are already subject to regulations in Austria.

By contrast the "Comments of the Federal Ministry for Agriculture and Forestry, Environment and Water Management" reflect the position of the Ministry on the other issues.

1. National position on cadmium and phthalates:

re cadmium:

Austrian legislation banning the use of cadmium goes beyond the cadmium Directive (Directive 91/338/EEC amending for the tenth time Directive 76/769/EEC) in so far as in Austria all PVC applications are subject to the ban. As part of the fifth adaptation of Annex I of Directive 76/769/EEC to technical progress Austria was allowed to maintain its more stringent restrictions as a transitional measure until 31 December 2002. Austria's position is that the aspects highlighted in the Green Paper and the state of the art justify this national ban, which should be introduced throughout the EU. This should be

brought about by a further adaptation of Directive 76/769/EEC to technical progress as soon as possible. This adaptation should enter into force by 1 January 2003 at the latest.

In order to avoid disadvantages for European industry, the Directive should also ban the placing on the market of cadmium stabilised products. There should be exceptions for recycled products.

On this point, Austria expressly welcomes the voluntary undertaking by the industry, stated in the Green Paper, to ban the use of cadmium stabilisers from 2001.

re phthalates:

Austria is in favour of the following measures in relation to toys and child care articles:

- scope: toys and child care articles for children up to the age of three which are intended to be put in the mouth or which are not intended to but can be put in the mouth
- ban on all phthalates as plasticisers
- no inclusion of migration values.

Austria has repeatedly expressed these demands in the discussions on the planned 22nd amendment of Directive 76/769/EEC. Because of the specific issues involved and the particularly vulnerable target group (infants up to the age of three) particular emphasis should be placed on the precautionary principle in this case. In the opinion of Austria, consideration should be given not only to alternative plasticisers, but in particular to alternative polymers (such as rubber, elastomers).

2. Comments of the Federal Ministry for Agriculture and Forestry, Environment and Water Management

2.1 Questions relating to PVC which are not covered satisfactorily or at all in the Green Paper

Production:

Although the production of PVC according to the state of the art, as mentioned in the Green Paper, should not lead to any increased risk to the health of workers, there can be

cases of increased exposure at any time. Because vinyl chloride is particularly dangerous, this can have dramatic consequences for workers. Thus, in the past, many cases of illness (cancer) have been notified.

Transport:

Vinyl chloride, which is classified as a carcinogen, is transported across frontiers by rail, ship or road from one industrial plant to another where it is polymerised into PVC. The environmental risks arising from accidents or incidents during transport are a major hazard for those municipalities along the routes. These aspects should not be overlooked in any comprehensive appraisal of PVC.

Fire behaviour:

The behaviour of PVC in the event of a fire should be subjected to a detailed study covering facts which have already been scientifically established, the environment into which the product is to be incorporated and the quantities of PVC used.

The high chlorine content in PVC does indeed have a favourable effect on flammability, flame spread and heat release, but on the other hand the density, corrosiveness and toxicity of the fumes produced are much higher than with other chlorine-free synthetics.

The hydrochloric acid formed in the event of fire (HCl gas combining with the water used to extinguish the fire) attacks in particular metals (steel reinforcements in concrete, metal structures), electrical installations and electronic equipment.

As regards the remedial measures needed after fires because of the amount of soot formed and the effects of corrosive gases, PVC materials come out worse than halogen-free materials because of the relatively high density of the fumes and the greater amount of soot as well as the formation of corrosive HCl gas.

The Ministry is of the opinion that in areas where at present large quantities of PVC are used (e.g. as floor coverings), the dense fumes in the event of fire and the corrosiveness and toxicity of those fumes mean that in principle chlorine-free materials would be preferable.

This should be considered in particular in areas such as:

- passenger transport (underground, trams)
- densely populated buildings (stores, hospitals, hotels)
- buildings with a high intrinsic value (telephone exchanges and computer centres, power stations, TV and radio stations, museums)
- premises which have to remain operational during a fire (emergency centres, military installations).

2.2 **Re: special applications**

The Ministry is of the opinion that the use of PVC should be viewed in a different light depending on the application. For some applications, the use of PVC cannot be recommended from an environmental point of view. This applies mainly to two areas:

- Products with a short life (e.g. packaging materials, consumer goods): Since this sector normally involves a single, short use, these materials become waste immediately after their use. Moreover, the technical characteristics (long life, certain mechanical properties) of the PVC are not significant in such applications and alternatives can therefore be used without problem.
- Plasticised PVC: The aim should be to find an alternative to plasticised PVC wherever possible. The Ministry's position is based on the large amount of hazardous additives (e.g. plasticisers) that are used, leading to a secondary material stream which is hard to control and which poses risks to the environment. Moreover alternative products are already available for almost all applications.

The risk associated with the presence of phthalates (as plasticisers) in toys and child care articles made of PVC has already led to a ban at EU level. Various national regulations in a number of Member States go beyond this ban. Particularly where there are large surface areas of plasticised PVC materials in living spaces (e.g. carpets, floor coverings etc.), significant amounts of hazardous plasticisers (such as DEHP - a phthalate) can be released, leading to persistent contamination of the house dust or ambient air.

The Ministry is of the opinion that a ban on plasticised PVC would overcome the problems of uncontrolled product streams and waste production and that therefore appropriate measures should be taken.

2.3 As regards the specific questions raised by the Green Paper:

Question No 1: Which set of measures should be implemented to address the issue of the use of lead and cadmium in new PVC? According to which time frame?

- The ideal solution is measures under the banning Directive (76/769/EEC) which already prohibits or restricts the use of cadmium in plastics. There are bans on cadmium in coloured pigments in various plastics, as well as in stabilisers which are used in PVC products. The comprehensive list of restrictions already adopted shows that technical alternatives are available for these uses. Extending the ban, particularly in the area of stabilisers, to all PVC applications would only require an adaptation of the Directive to technical progress and would have maximum effect with regard to avoiding the use of cadmium in new PVC products. As far as Austria is concerned, the use of stabilisers containing in cadmium should be banned by the Directive by 31 December 2002 at the latest (see “national position” above).
- As regards stabilisers containing lead, Directive 76/769/EEC would also be the most effective means under chemical law. An amending Directive could be used here to at least phase in a ban but this process should be started as soon as possible.

Question No 2: Should specific measures be taken for the use of phthalates as plasticisers in PVC? If so, when and through which instruments?

- Because of the large quantities of hazardous phthalates which are produced every year and thus brought into circulation, effective measures should be taken in this area as well.
- As it has already stated, Austria is in favour of the strictest possible ban on phthalates in toys and child care articles, since a particularly vulnerable section of the population is subjected to unnecessary exposure. Because of the harmful and endocrinal effects of some phthalates, there should be a general ban on their use on health protection grounds. Directive 76/769/EEC should be amended. Since in practice all such toys made of plasticised PVC contain phthalates, this problem will be solved primarily by replacing the plasticised PVC, for which there are proven alternatives (see “national position” above).

- The use of phthalates in various materials used in living areas (particularly floor coverings, carpets etc.) can lead to serious contamination of the house dust or ambient air and therefore, in the Ministry's view, also represents a health risk. In the aquatic environment, also, phthalates cause a problem because of their poor biodegradability. The aim therefore should be to replace phthalates with plasticisers which are demonstrably less of a hazard for health and the environment.

Therefore, a specific set of measures to drastically reduce the use of phthalates is considered necessary. These efforts should focus not only on replacing phthalates with less hazardous plasticisers, but also and above all on finding an alternative for plasticised PVC in the areas in question.

Question No 4: Should specific measures be attached to the mechanical recycling of PVC waste containing lead and cadmium? If so which ones?

As far as possible, the recycling of PVC waste containing lead or cadmium should not lead to the heavy metals passing into new product batches. As a general rule, therefore, the use of such waste should be restricted.

Question No 8: Which are the appropriate instruments for development a horizontal strategy on PVC? Should a PVC substitution policy for some specific applications be envisaged? If so, how?

A mix of various instruments could be proposed. As mentioned above, Austria's preference concerning the additives lead, cadmium and plasticisers is clearly for binding legislation (e.g. Directive 76/769/EEC). Recommendations or voluntary commitments may also be used for phased reductions in quantities.

As regards the abovementioned aspects of plasticised PVC and products with short lives, the Ministry considers that there should be a specific policy of replacement.

In this connection, a legislative measure such as a PVC Directive could be considered. The public procurement sector could also set an example to help, achieve a more sustainable product policy and bring about a reduction in the use of PVC in problematical applications.

For the Minister

Dr Streeruwitz